

The Commonwealth Quarterly

News from around the circuit.

Winter 2006-07



Commonwealth Electric Company
of the midwest

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The Best of the Best, the First of the First, and the Coolest of the Coolest. This is the slogan that appears underneath the Creative Kidstuff name on www.creativekidstuff.com. Creative Kidstuff, a multi award winning toy store is the newest addition to the Village at Jordan Creek Town Center in West Des Moines. Commonwealth Electric's Des Moines location completed the tenant build out for Creative Kidstuff in November. From the store's vibrant paint selections, brightly lit millwork, to the four foot miniature kid door in the store front, this Minneapolis based retailer is built for kid appeal.

This abundantly colorful toy store's General Contractor Mahoney Builders of Minnetonka, Minnesota gave Commonwealth the opportunity to fully furnish and install light fixtures, distribution equipment, and telephone data systems.

Doyle Horwart was Project Foreman and Matt Masters was Project Manager/Estimator. Mahoney Builders was great to work for and really saw to their customers needs. Another great job at Jordan Creek Town Center.



Creative Kidstuff Toys



Brad Moren Pictured

Multiple Projects at Southern Arizona VA Health Care System

Jay Hoobler – Branch Manager

Commonwealth Electric will continue to have a strong presence at the VA Hospital in Tucson. For the second year in a row Commonwealth Electric has received multiple contract awards to perform electrical work for the Southern Arizona VA Health Care System. After a somewhat lengthy negotiation process to get the projects within budget, Commonwealth Electric has been awarded subcontracts for five separate projects.

The first project is the Site Prep for Modular Buildings project. This project involves providing power and communication's services to several new modular buildings that the VA will be adding in 2007. This project is well under way and is scheduled to be complete in February.

The Research Wet Labs project, which has also started, will provide an additional research facility for the hospital. This project consists of a new 6,400 square foot research laboratory building along with renovation of an existing laboratory facility that is adjacent to the new construction. Site utilities will involve extension of the existing medium voltage distribution system to the new building. We will also be installing a new emergency generating system that will provide back up power for both the new and the existing lab facilities.

The Renovate Ward 3 East project is an 11,000 square foot renovation located within the existing hospital. This project is very similar to the Ward 2 South project which we completed last year. The existing space will be completely stripped out and renovated for a new twenty five (25) bed ward that will serve critical care patients at the hospital. We will be providing specialized medical lighting along with extensions of the existing nurse call, fire alarm, matv, and paging systems.

The Emergency Power Upgrades project will probably be the most challenging job we do this year. This project consists of providing a new 750KW generator set along with new synchronization switchgear that will allow us to parallel the new generator with two of the hospital's existing generators. In addition, we will be replacing several existing transfer switches with new closed transition switches and also replacing many of the existing emergency distribution switchboards. Because this is the back up power for the



VA Hospital in Tucson

entire hospital, all of the work needs to be accomplished with little or no down time to their emergency power system. In order to make this a successful project, a great deal of planning and coordination will need to be done prior to any scheduled change over.

The fifth and final project that we have been awarded is the Replace Med Gas Controls project where we will be installing control wiring to support new medical gas alarm panels that are being installed throughout the hospital.

All of these projects are being performed as a subcontractor to Candelaria Corporation except for the Med Gas Controls project which is being performed with JPE Construction. We have developed a strong working relationship with Candelaria Corporation over the past several years. By the end of 2007 we will have completed ten separate projects with them at the VA Hospital in Tucson.

These projects will involve several of our key foremen and managers. Ken Kitchen will be providing field supervision for the Site Prep for Modular's project and also the Ward 3 East job. Tony Doar will be supervising the Emergency Power Upgrades project. The Med Gas Controls job will be done by our service work department and will be supervised by Jack Harris.

We anticipate this to be another productive and successful year of work at the VA. With a little luck and a lot of skill, I'm sure that we can make it happen.

First of Two DIRECTV Facilities Nearing Completion

Jay Hoobler – Branch Manager

The new uplink facility for Direct TV in Benson, AZ is entering the final phases of completion. This facility, which was started in July is scheduled to be completed in January and will serve as a "slave" facility to a larger uplink facility that we have recently started in Tucson.

Originally both projects were scheduled to be constructed during the same time period. Due to developmental issues

and delays in the permitting process, the Tucson facility has started nearly six months behind its counterpart in Benson.

Project manager Clay Gideon has been busy working with the general contractor and the owner's representatives in an effort to accommodate numerous design changes that have occurred to date. On site foreman Tom Barnes and Quang

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Tran have done an outstanding job of incorporating these changes and still maintaining the 210 day completion schedule for the project.

As the Benson project nears completion, the Rita Ranch facility in Tucson is just coming out of the ground. This project is approximately twice the size of the Benson facility and will be the main uplink facility for the Tucson region. Bruce Wiebenga is supervising the field operations for the Tucson facility which is scheduled to be complete by May.

By all indications, it appears that the Benson job will be a very good job for us and the same can be expected for the Tucson facility.



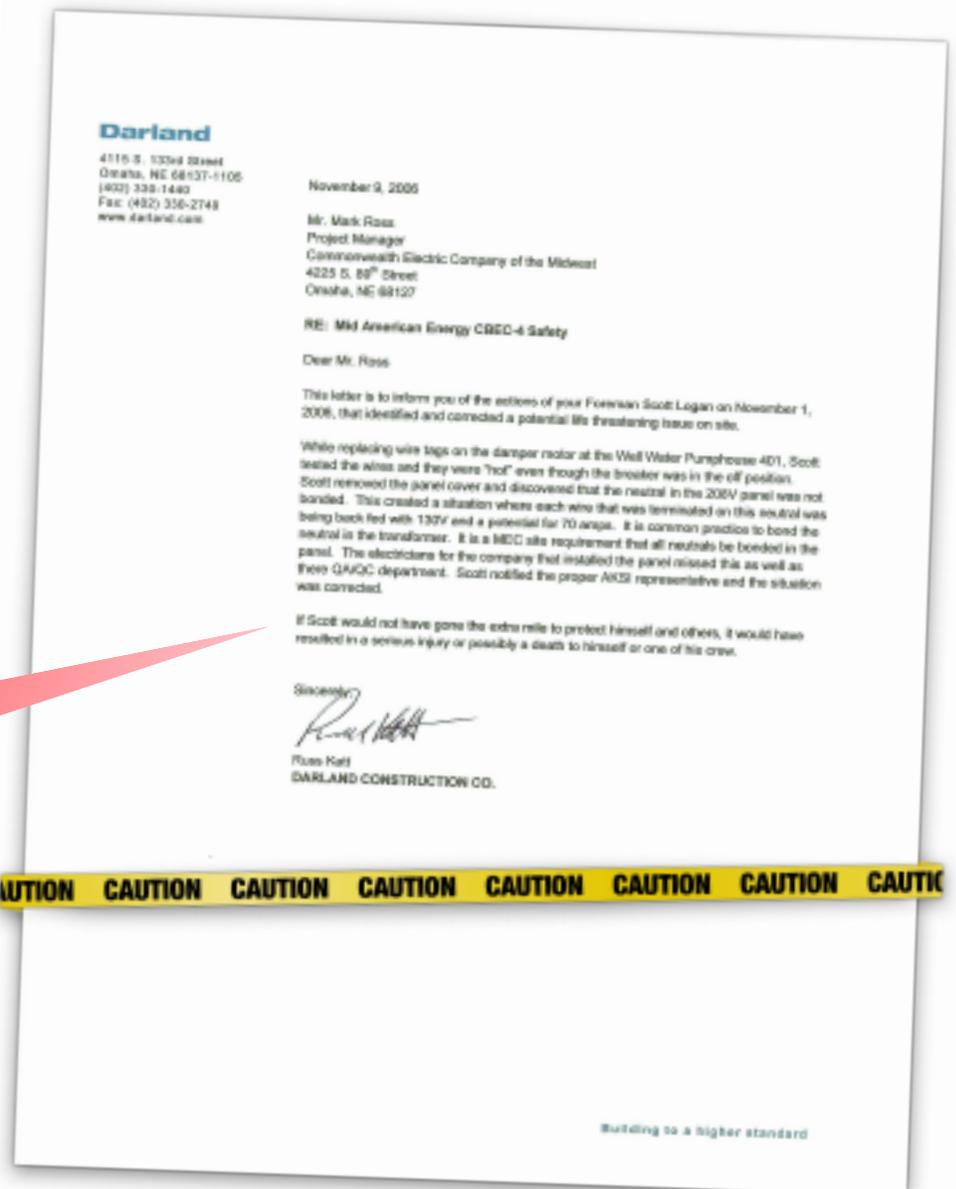
DIRECTV in Benson, Arizona

Safety Kudos

Foreman Scott Logan, on November 1, 2006, identified and corrected a potential life threatening issue on the Mid American Energy CBEC-4 site.

“If Scott would not have gone the extra mile to protect himself and others, it would have resulted in a serious injury or possibly a death to himself or one of his crew.”

Way to go Scott Logan!!!



Letter from Russ Katt – Darland Construction

Central Arizona Water Conservation District

Central Arizona Project (C.A.P.) Maintenance Building Addition

Gene Hayes – Project Manager

CAP is a water supply system that provides for the farms and cities of central Arizona. Conceived in the 1960's and approved by Lyndon B. Johnson in 1968, construction of the Central Arizona Project began in 1973. Completed in 1994, this system brings water across the hottest desert in the country in open aqueduct, winding 337 miles from Lake Havasu on the Colorado River through Phoenix to Tucson.

The main headquarters and maintenance facilities are located in North Phoenix. The Maintenance Building Addition Project is an expansion of the existing Maintenance Building 2, consisting of constructing 3 new buildings/work areas connected to each other and the existing Maintenance Building with a new Open Shop area. The work includes modifications to the existing building and 50t bridge crane as well as the installation/construction of a new 30t bridge crane, sandblast booth, paint booth, weld shop and the open work area. Work has started and when completed in July 2007, this 17,000 sq ft addition will provide C.A.P. with

expanded capabilities to build or repair equipment required for supporting the operation of the entire CAP system.

CECM is performing the electrical work associated with this project which includes the installation of a new 15KV underground distribution system for the entire site as well as for the building addition and the fire alarm system. The 15KV system consists of a new 15KV switch, transformer, SES and the installation of 3500 feet of 1000Kcmil underground cable. The electrical contract for this work is \$692,000.00.

The project requires detailed planning including written work plans and safety procedures all approved by C.A.P. Ruben and his staff have been very proactive in helping to assemble these procedures/plans and getting them approved.

R. N. Ewing is the General Contractor for this project. Bernie Manring is the Superintendent and Gene Hayes is the Project Manager for CECM.

MUD Propane Air Upgrade Project

Chuck Fintel – Project Manager

In 2004, MUD unveiled a three-year plan to upgrade its two propane-air plants. This upgrade was a way to ensure that its customers have the lowest gas costs in the Midwest and nationwide. These two peakshaving facilities, along with its liquefied natural gas plant, save customer-owners more than \$7 million per year in pipeline reservation costs.

Propane Air plants, used for peakshaving, mix propane vapor and air to achieve a mixture that has similar burning characteristics as the natural gas it is replacing. The propane is stored as a liquid under pressure until it is needed. It is stored as a liquid because it is 273 times more compact as a liquid than a vapor. To turn the liquid propane into a vapor, it is vaporized by using waterbath vaporizers which warm the liquid propane as it is pumped through a submerged tube bundle. Air is created by using large screw compressors, piped into a common header. The propane vapor and compressed air are then mixed together to achieve a mixture that can be added to natural gas and will have similar burning characteristics. A PLC



MUD Propane Plant



MUD Propane Plant

based control system is used to monitor and control the mixture, as needed by the natural gas system.

The first part of MUD's plan was to upgrade the 42-year-old propane-air facility at 117th and Fort Streets and increase its production capacity by 50%. This plant was built in 1963 and cost \$2 million to build at that time.

MUD advertised this project for bids in December 2005 and received bids on January 20, 2006. Midwest Mechanical Contractors of Nebraska was awarded the prime contract and they selected Commonwealth Electric as their electrical subcontractor. A crucial member of our team was Huffman Engineering, who took care of all of the PLC controls.

The time frame for the project was April through October, 2006 for construction, and the month of November for testing.

The work was spread out among 6 buildings, along with 1800 feet of duct bank and 15kV cable between buildings. There were Class 1, Division 1 areas; Class 1, Division 2 areas; and non-classified areas. Our scope included the change-out of a 480V MCC in

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the electrical building and the addition of a 5kV Limit Amp cubicle to the existing gear in the LNG building. This was for a second service to the compressor building. At the compressor building we added a new service from the power company's new primary transformer. In the compressor building we demoed all power and controls to the five each, 42 year-old compressors. Also, most of the power wiring was removed along with the existing switchgear. We replaced this gear with new 5kV Limit Amp gear for the four new Atlas Copco

compressors. Our scope also included power and controls to a new vaporizer and the wiring to new valve controllers on four existing vaporizers. The only lighting included in our scope was for emergency lighting for both classified and non-classified areas. Huffman Engineering, as our subcontractor, handled all of the PLC engineering, drawings and programming.

The engineer for the project was Smith and Norrington from New Hampshire. Paul Jaksich was the foreman on the project and he was able to run this project efficiently with a very small crew.

The critical part of the project was the delivery of the Limit Amp equipment. Receiving the submittals from the vendor took much longer than it should have and therefore pushed the delivery time frame out much further than it should have. However, except for the delivery issues, this project ran smoothly and was very successful for us.

We had a good relationship with the prime contractor and MUD and we hope to be part of the team that performs the upgrade work on the second facility at 63rd and Grover in 2007.

Expo Division

Dan Shannon, Tania Kemp, LeAnn Whitehead, Arlen Rowland, Fred Moore, Jennifer Willer, Jeff Willer and Brian Badet

It was a wonderful 2006 for the Expo Division. Business continues to grow as we work regularly in many convention centers, resorts, hotels and arenas. Both the Phoenix and Tucson offices have been granted extensions on our current contracts at the two largest convention facilities in the State of Arizona. A one extension year was awarded for the Tucson Convention Center and a two year extension was awarded for the Phoenix Convention Center. This was due to all the hard work and dedication from the entire Expo Staff with the support of the Phoenix and Tucson construction offices.

As you may or may not know, Expo offices are actually based out of the Phoenix Convention Center and the Tucson Convention Center. The Phoenix office opened Phase 1 of a 600 million dollar rebuild of the Convention Center. This state-of-the-art facility is truly one to be proud of. We have had great success in this new facility and look forward to opening phase 2 of this immense project in December of 2008. Our current Convention Center in Phoenix rates number 66 in the country for convention space. When the rebuild is complete in 2008, we will rank in the top 20. We will triple in size, going from 280,000 square feet of convention space to over 900,000 square feet. We look forward to becoming a premiere international facility that will put the City of Phoenix and



PCC West Building Corridor

the State of Arizona on the convention, meeting, and trade show map.

We've also gotten great news from the Tucson Convention Center as they are in the process of designing a new facility as well. This will eventually bring bigger and better events to the Tucson market. We are very proud to say that we have been Service Partners with both of these tremendous facilities for over 10 years and look forward to many more years of service and success stories.

As we enter into 2007, the Expo office truly has a lot to be thankful for. From all of us in the Expo Division, we wish you the best of luck and great successes throughout the year.



PCC West Building Exterior



PCC West Building Exterior

RTM Construction

Don Barker – Project Manager

Commonwealth Electric has been selected by R.T.M. Commercial Builders to construct three major projects located in the East Valley and a Wells Fargo Branch Bank in the Northwest Valley.

The first project Superstition Gateway West consists of three CMU block buildings with two major tenants, Famous Footwear and Party America. The third building is a multi tenant project with several tenant improvements consisting of 40,000 square feet. Each building required power and lighting with custom exterior fixtures. This project was completed on schedule in early November. Project Manager is Don Barker with Jeff Craft as the Project Foreman.

Commonwealth Electric started the second project Red Mountain Promenade in July of 2006. This project is scheduled to be completed in the first quarter of 2007. The project totals two multi tenant and one major tenant. Multi – metering service equipment, lighting and controls are a major part of this project. The buildings total 50,000 square feet of retail space. Commonwealth was also selected to do the site lighting which has consisted of over fifty, twenty-five foot parking lot poles and fixtures. Project Manager is Don Barker with Dan Will as the Project Foreman.

Commonwealth Electric started the third project in November of 2006. Superstition Gateway East consisting of five multi tenant buildings totaling 45,000 square feet of retail tenant space. Each project has multi-metering service sections, custom lighting controlled by a multiplex lighting control system. The project is scheduled to be completed in early May of 2007. This project was awarded to Commonwealth Electric based on the performance by the crew on the Superstition Gateway East project. Project Manager is Don Barker with Jeff Craft as the Project Foreman.

Commonwealth Electric was selected in July of 2006 to construct the new Wells Fargo Branch Bank located in the Northwest valley. This project is a 6600 square foot building and is a stand alone branch facility. The project is scheduled to be completed early 2007. The scope of work includes new electrical service equipment, clean power and lighting branch circuits, light fixtures, fire alarm system, security systems and voice data systems. Project Manager is Don Barker with Mike Lopez as the Project Foreman.

Des Moines' Office Completes Renovation of Old Navy at Merle Hay Mall

Matt Masters – Project Manager

As back to school shopping started for the 2006 school year, Commonwealth - Des Moines was awarded the renovation of the Old Navy Store at Merle Hay Mall. The project consisted of complete light fixture replacement, new break room, cash wraps and other miscellaneous upgrades for the 23,392 square foot retail space.

The most difficult element of the project was not the nature of the work or that it was completed in 9 weeks but that it had to be completed in the middle of the night. The store remained open during remodeling; therefore, whatever was taken apart that night had to be put back together the next morning to allow for the store to remain functional and aesthetically pleasing as possible. This meant any evidence of electricians working, i.e., lifts, materials and tools had to be out of sight during normal business hours.

Tri-North Builders of Madison, Wisconsin, the General Contractor on the project, gave Commonwealth the opportunity to work on a challenging project. It also allowed CECM to maintain a presence at a tenant of a valued customer, Merle Hay Mall.

The project team consisted of Doyle Horwart - Project Foreman, Matt Masters - Project Manager, and Jeff Gero -



Old Navy Store in Des Moines

Estimator. Between the office and the field personnel, Commonwealth Electric was able to meet the needs of Old Navy and Merle Hay Mall.