

## Telecommunications Design

The telecommunications revolution has created a demand for specialized design services. Bridgers & Paxton responded to our clients' requests for faster, more secure modes of communication in their facilities by adding telecommunications design to our list of services. We offer network and systems planning, systems engineering and analysis, system implementation and project management. Our mission as telecommunications engineers is to support the client's communications needs now and far into the future by providing infrastructure that is state-of-the-art, reliable, and flexible.

Our telecommunications design team is accustomed to fast-track timelines and dedicated specifically to providing the best telecommunications design services possible. B&P is experienced with complex telecommunication systems that include combinations of voice, data, video, audio, security, and low-voltage control. The formats can be digital and/or analog. The designs can include the use of telecommunications fiber optic, copper, and wireless (radio or optical).



We are currently managing and designing the Exterior Communications Infrastructure Modernization (ECIM) project at Sandia National Laboratories (SNL). A detailed project description is included on page 3 of this newsletter.

B&P has on staff two Registered Communications Distribution Designers (RCDD) who are qualified professionals with expertise in the design, integration, and implementation of telecommunications transport systems and their related infrastructure components. For more information on our RCDD staff, see article on page 2.

Through our knowledge of industry standards, guidelines, and continuous RCDD training, B&P is able to provide our clients with innovative solutions that solve their telecommunications requirements. We understand that the technology of telecommunications must address the issues of integrating "old systems" and "new systems," while planning and designing in a rapidly changing industry. B&P strives to provide the most advanced telecommunications design and engineering services possible, while exceeding the technical expectations of our clients.

RCDD is a Registered Communications Distribution Designer. An individual who is registered by BICSI with a minimum of two years of telecommunications experience and has passed the certification exam. A RCDD has experience and knowledge in the following areas:

### WHAT IS RCDD?

- ◀ Cabling Infrastructure
- ◀ Horizontal Cabling Systems
- ◀ Cabling Distribution Pathways and Spaces
- ◀ Telecommunication Service Entrance and Termination
- ◀ Building and Campus Backbone Systems

### B&P Ranks at the Top

The "2002 Giants Report" listed Bridgers & Paxton as one of the top 100 mechanical/electrical consulting engineering firms in the nation. The article in the August 2002 issue of Consulting-Specifying Engineer ranked engineering firms based on mechanical/electrical billings from the previous fiscal year.

The October 2002 issue of Southwest Contractor magazine ranked Bridgers & Paxton as one of New Mexico's "Top Design Firms". The rankings were calculated according to in-state revenue for 2001.

## New Member Elected to B&P's Board of Directors



Richard J. Reif, PE, has become a shareholder in Bridgers & Paxton Consulting Engineers, Inc. He was elected to the Board of Directors and became a Vice President at the July 2002 Board of Director's meeting.

Rich is a 1994 mechanical engineering graduate of the University of North Carolina at

Charlotte and has been with Bridgers & Paxton since September 1995. He has recently finished the \$13 million Tricare Reference Laboratory and is currently working on a \$9 million renovation and addition at Plains Regional Medical Center in Clovis, NM.



## Introducing Our Registered Communications Distribution Designers

Bridgers & Paxton has on staff two Registered Communications Distribution Designers (RCDD), Charles (Chip) Kizer and Keith Cooper.

They achieved their RCDD certification by having the required telecommunications design experience and passing the RCDD exam. This exam is based upon a three volume BICSI TDMM Telecommunications Design Methods Manual.



**Cooper**



**Kizer**

Keith and Chip have joined the small group of registered RCDD designers in the Southwest Region who will be called upon to meet the growing demand in the telecommunications field.

This spring, Chip Kizer will be working to complete his LAN certification, and Keith Cooper will be completing his OSP specialty certification from BICSI.



## Congratulations to Our New Professional Engineers

Dan Sandblom and Charlie Veitch of the Albuquerque Office received notification in January that they successfully completed all the requirements for licensure as professional engineers in the State of New Mexico.

Dan is a 1998 electrical engineering graduate from the University of Arizona and has been with B&P since June 1998.

Charlie is a 1998 mechanical engineering graduate from the University of Kansas and has been with Bridgers & Paxton since May 2001.

Bridgers & Paxton now employs over 30 Professional Engineers and has a staff of over 90 professionals in our Albuquerque, NM, and Phoenix, AZ, offices.



## New B&P Employees Since Our Last Publication

Larry Ortega  
Colin Chalmers

Morgan Royce  
Ernest Jones

Larry Adkins  
Patrick Watkins  
Randy Jay  
Jason Bruneste

Nina Crespin  
Grant McKinley  
Steven Starr

Kim Altmire  
Scott Atwater

Miguel Lopez  
John Cook

Emmanuel Uba  
Mark Stanton  
Donald Singer

Linda Thelander  
Beth Rose  
Andrew Beck



## B&P Hires New Business Development/Marketing Coordinator

Kim Altmire recently joined Bridgers & Paxton as the company's new Business Development/Marketing Coordinator in our Albuquerque office.

In this role Kim will be assisting B&P's Executive Vice President, John Grapsas with the company's marketing activities.

Kim received her B.B.A. in Marketing Management from the University of New Mexico. She has over 11 years of marketing experience working for engineering and construction firms in Albuquerque.



## Bridgers & Paxton has been Recognized as a Strategic Partner by Sandia National Laboratories

Bridgers & Paxton's work at Sandia National Laboratories (SNL) has increased significantly in the past few years. B&P has worked at SNL since our inception in 1951. Our first project was an Air Conditioning System Upgrade for Buildings A-17 and A-23 at SNL. B&P is now the MEP consultant on three of the four Full Service A/E Contracts, that were awarded as "Strategic Partnerships" to Dekker/Perich/Sabatini, Fanning-Bard-Tatum, and Chavez-Grievies in late 2002. Additionally, B&P was awarded its own Prime A/E Contract and the MEP consultant on two Design/Build Contracts for SNL.

Recently, B&P was formally recognized as a Strategic Partner by SNL! While SNL has over 2,000 suppliers, they currently have only 12 Strategic Partners. We are very proud of this recognition, as this new designation will bring B&P new opportunities to work with the Sandia National Laboratories, as well as other DOE facilities across the country.



### Exterior Communications Infrastructure Modernization Sandia National Laboratories – Albuquerque, NM



Bridgers & Paxton is the prime contractor to SNL providing project management and design services for this \$12 million line item project. The objective of the Exterior Communications Infrastructure Modernization (ECIM) project is to support Sandia National Laboratories current and future communications needs by providing infrastructure that is flexible enough to support the projected system demand, easily maintainable, and can accommodate the integration of additional areas over a period of thirty years or more.



The ECIM project tasks include:

- ◀ Restore the existing and/or install a new duct bank / manhole system to meet the objectives of the project.
- ◀ Install new fiber optic data and security cable rings to Main Distribution Rooms, and install new fiber optic data and security cabling and new multi-pair copper telephone cabling to many buildings within the project area.
- ◀ Provide data, voice, security, fire alarm reporting, energy management, power metering, and other signal systems with a single common distribution pathway (duct bank / manhole system) within the western half of the project area.

We submitted the Title I documents in late November 2002, and the External Independent Review Team is currently reviewing the documents in preparation for the Title II Phase of the project. This project is scheduled for construction in January 2004.

### Bridgers & Paxton Board of Directors

- (1) Robert E. Hopper, P.E.
- (2) J. Douglas Guinn, P.E.
- (3) John B. Grapsas, P.E.
- (4) Stephen B. Maggart, P.E.
- (5) Ronald E. Vanaman, P.E.
- (6) Michael E. Dexter, P.E.
- (7) William D. Herbst, P.E.
- (8) Abbas Shirian, P.E.
- (9) Steven O'Brien, P.E.
- (10) John F. Heck IV, P.E.
- (11) Richard J. Reif, P.E.
- (12) Michael A. Slaman
- (13) Dwight S. Dorsey



Back Row: (8), (11), (5), (13), (7), (9), (10)  
Front Row: (12), (2), (1), (4), (3), (6)

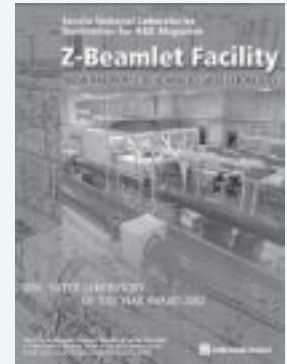
---

## B&P Receives Awards for Two Sandia National Laboratories Projects

Sandia National Laboratories and Bridgers & Paxton as a team member for the Z-Beamlet Facility were awarded by R&D Magazine the “Renovated Laboratory of Year Special Mention Award 2002.” SNL was notified of the team award, sent a congratulations letter to B&P, and “thanked our team for their contributions in making this project a huge success.”

The Z-Beamlet project is a joining of Beamlet, the third largest pulsed laser on earth, and Z-Accelerator, the most powerful electrical device in the world, to produce X-ray images of minute explosions that resemble those in an atomic bomb and approach fusion.

The delicate process of moving the Beamlet from Lawrence Livermore National Laboratory, CA, to Sandia National Laboratories, NM, where the Z-Accelerator is located, began in 1998 and was completed in 2001. The project did have considerable risks during the transfer and the set up of the laser in its new environment. The new Z-Beamlet Facility is a converted 25-year old warehouse at the Z-Accelerator complex. This facility had to comply with precise tolerances and stringent operating conditions to meet the project mission or risk possible destruction of the laser. Sandia National Laboratories and its many contractors combined these two national scientific resources into a world-class laboratory and made this project an award winner.



Sandia National Laboratories awarded SNL project personnel and B&P team members with the “2002 Meritorious Achievement Citation for the Rapid Reactivation Project.” This project team renovated existing space, constructed new space, and installed new equipment to more than double SNL neutron generator production capacity without affecting on-going operations. The award recognizes the outstanding accomplishments of the SNL employees and their team members.

---

4600-C MONTGOMERY BLVD., NE  
ALBUQUERQUE, NEW MEXICO 87109  
(505) 883-4111

**BRIDGERS & PAXTON**  
CONSULTING ENGINEERS, INC.

11209 NORTH TATUM BLVD., SUITE 160  
PHOENIX, ARIZONA 85028  
(602) 996-6399