



HISTORICAL ACHIEVEMENTS

VALLEY OF THE GIANTS

"When I want to understand what is happening today or try to decide what will happen tomorrow, I LOOK BACK."

OLIVER WENDELL HOLMES

WILLIAM D. LOCKWOOD
Chairman of the Board
LJB ENGINEERS & ARCHITECTS, INC.

This distinguished professional engineer is a team builder with a commitment to problem-solving through engineering and total responsiveness to client needs. Many of Dayton's leading structural engineers have honed their professional skills at his side. Bill's creative civil engineering efforts over the past three decades have significantly improved the quality of life for many. His fundamental technical advances in "tilt-up construction" technology, developed in cooperation with Miller-Valentine Group, have provided modern long-lasting facilities for business firms at minimal cost. His most recent technical advances address two of our nation's most urgent problems: the replacement of an aging and deteriorating bridge inventory and the environmental needs for underground containment.

Bill is a highly disciplined civil engineer with a driving philosophy that promotes inventive concepts, cost effective design, practical construction and rapid completion of the work. This philosophy is anchored in strong educational credentials and exceptional experience. He holds a BS Civil Engineering degree and MS Civil Engineering degree from the University of Cincinnati. He is a registered professional engineer in Ohio, Indiana, Florida, Alabama, Nevada, Colorado, and Wisconsin. He is a member of the American Society of Civil Engineers, Engineers Club of Dayton, American Concrete Institute, National Society of Professional Engineers and Society of Military Engineers. He has authored technical papers for national technical and construction journals. He received the 1978 ASC Outstanding Engineer and Scientist Award.

Bill has the unique capability to function as both a fundamentalist and a generalist. He uses rigorous mathematical analysis in structural design to insure safety and long-term integrity of the structure. This fundamentalist approach has consistently met and exceeded accepted government design standards. It has also been validated by test data and overwhelming acceptance in numerous peer reviews. The ability to integrate this fundamental rigor into the broader requirements of architectural design, minimal construction costs and long-term economic return is the mark of the true professional.

This special talent has resulted in two major technological achievements in the field of civil engineering. First is the highly respected concrete panel "tilt-up construction" technique that has provided major economic opportunities for the construction industry. Bill was one of the pioneers in tilt-up, applying empirical test data to a wide range of constructable, economical engineering solutions for the

building technique. The result was that site cast concrete wall panels could be designed as vertical load bearing members and still accommodate wind loading and shear transfer. This eliminated exterior structural framing for large buildings, permitted continuous horizontal pouring of concrete wall panels, and reduced erection time at the job site. It also offers an unlimited variety of architectural treatment to the buildings' exteriors. He established the design data and technical standards for this new wall panel construction technique. These standards are employed by LJB's CON/STEEL Tilt-Up Systems and used by contractors around the country.

Second is the rapidly emerging precast reinforced concrete arch that is having a major impact on small bridge replacement programs on a national basis. This patented precast unit eliminates most restrictions for cover and live load limitations and has been proven to be more economical than other design concepts. A three-year development program has correlated Bill's innovative stress analysis with actual performance data obtained during full-scale tests. The CON/SPAN culvert arch has been installed in twenty-nine states and Canada. This program has been a success because Bill was able to comprehend the magnitude of the evolving bridge replacement needs, integrate this knowledge with the construction requirements of conventional bridge design, and evolve a technical solution that significantly reduces costs and construction time. The technology is now being extended to underground containment systems.

Bill Lockwood is an unassuming, low-profile engineer. He leads by example and is characterized by his contemporaries as a person with significant integrity, ingenuity and energy. He is fully involved in a

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PEOPLE



NEW MEMBERS

Patricia A. Knoop	Softech Inc.	MS Computer Science
Edward Klaben	Click Camera & Video	BS Engineering
James F. McCarthy Jr.	Retired USAF	BA Science
Michael J. Meyer	Tech Products Corp.	BSME
Franklin J. Yensel	Mesarvey, Russell & Co.	MBA Finance

AROUND THE VALLEY

JOHN HILGEMAN

His wife, Jennifer, gave birth to a beautiful little girl. They named her Laura Marie. We look forward to seeing this little lady engineer at a future Club Christmas party.

CAROLYN DEMPSEY

Her mother passed away at Bethany Lutheran Village on November 16, 1989. She was 85 years old.

JOYCE BUERGER

This gracious lady attended the November Recipe Day. It was great to see her involved in the Club Family Program.

WENDELL KRAUS

He has formed a new business—Employee Compensation Planning. We all wish him well in this endeavor.

JIM CUSTER

He organized and conducted a new members' night meeting at the Club on Thursday, November 16, 1989. Supporting Jim were Phil Bouchard, Rick Wegmann, and Dennis Nolan.

NANCY DOUWSMA

The November Recipe Day was another standing room only success. Thirty-eight people attended this new Club Family program. The fashion show, program, and meal exceeded all expectations. Assisting

were Elaine Charbonneaux and Cherriann Requarth. Congratulations, Nancy. You have brought fun into a great program.

HAPPY BIRTHDAYS (December)

James Totten, James Messelling, Thomas Wolfe, Robert Perkins, George Stillwagon, Henry Fecteau, Don Driskell, Roland Williams, Charles Brinkman, Jr., John Heck, William Smith, Larry Shpiner, Richard O'Brien, Brad Tillson, Robert Berger, Charity Earley, Henry Bachmann, H. W. Goetz, Charles Waddell, Joseph Haverstick, Ron Root

Valley of the Giants (Continued)

broad range of community activities. In the words of Mark Twain, "Thunder is impressive, but it is the lightning which does the work." Bill Lockwood is the lightning which has sparked both new technology and his colleagues. His influence can be seen in the many "tilt-up construction" buildings that stand graciously along our area's interstate highways. His creative passion to "do it right" is expressed in many award-winning structures including Dayton's Island Park cable-stayed bridge. His dedication to constantly achieve the highest professional standards in civil engineering has placed his footprint firmly in the sands of time. He stands with the other great engineers who contributed to the innovator image in this community.

Hi-Tech Business (Continued)

precast units are manufactured. This can include computerized hydraulic analysis, automated CADD plan preparation, cost estimates and preliminary plans. Software allows a direct hydraulic comparison between CON/SPAN and other structures. Structural analysis of projects is accomplished with a finite element computer program originally developed for the Federal Highway Administration that has been modified for CON/SPAN application.

CON/SPAN is looking for explosive growth. It has a unique product with many applications for the enormous task of rebuilding our nation's infrastructure. The product is delivered by a national network of blue-ribbon concrete producers working as one with a local management and engineering support team, whose heritage of pioneering and innovation began in 1966.