## DOCUMENTS OF THE GENERAL FACULTY

## REPORT OF THE MEMORIAL RESOLUTION COMMITTEE FOR NED H. BURNS

The special committee of the General Faculty to prepare a memorial resolution for Professor Emeritus Ned H. Burns, Department of Civil, Architectural, and Environmental Engineering, has filed with the secretary of the General Faculty the following report.

Alan W. Friedman, Secretary

General Faculty and Faculty Council The University of Texas at Austin

lan W. Onekwan

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

## IN MEMORIAM NED H. BURNS

Professor Emeritus Ned Hamilton Burns, born November 25, 1932, in Magnolia, Arkansas, died peacefully in his sleep November 5, 2016, at the Westminster Health Center in Austin, Texas. An outstanding teacher, administrator, and structural engineering researcher, he served The University of Texas at Austin for nearly forty years. Ned was the youngest of six children born to Ila Martin Burns and Andrew Louis Burns. He graduated as valedictorian from Texas High School in Texarkana, where he was active as a trumpet player in the band. He earned a Bachelor of Science degree in Architectural Engineering from The University of Texas in 1954. As important as his college education was to his future career, meeting his lifelong love, Martha Ann Fontaine, at the University led to a marriage that lasted sixty-one years.

Ned was widely recognized as one of the outstanding authorities on prestressed concrete. Ned's interest in prestressed concrete began in 1955 when he was serving in the U.S. Army at Fort Lewis, Washington. While there, Ned contacted Art Anderson, President of Concrete Technology in Tacoma and a member of the National Academy of Engineering, to expand his professional horizons. They met on weekends, when Ned received numerous tutelage sessions on prestressed concrete design and construction from one of the pioneers in the industry. After two years in the U.S. Army, Ned completed a Master's degree at The University of Texas in 1958 and a Ph.D. in Civil Engineering at the University of Illinois at Urbana-Champaign in 1962.

Ned returned to UT as an Assistant Professor in 1962, became a Professor in 1972, and was named Zarrow Centennial Professor in 1983. He served as Associate Dean of Academic Affairs for Engineering for four years and Director of the Ferguson Structural Engineering Laboratory for three years. Throughout the years, he received numerous awards for exceptional teaching and advising at both the undergraduate and graduate levels. Among these were the General Dynamics Award for Excellence in Teaching (1965), the Student Engineering Council Teaching Achievement Award (1977), the Amoco Teaching Excellence Award (1983), the Haliburton Education Foundation Award of Excellence (1983), the American Concrete Institute Joe W. Kelly Award (1990), the UT Blunk Memorial Professorship (1996), and the Prestressed Concrete Institute Distinguished Professor Award (2000). At the end of each semester, he would share his philosophy of engineering and life with students: "The truly great man is he who plants shade trees that he will never sit under."

Ned's entire career at UT was marked by a close identification with and numerous contributions to the study of prestressed concrete. He was well-known internationally as co-author of the classic Wiley text *Design of Prestressed Concrete Structures*, with T.Y. Lin (UC Berkeley). For forty years, he taught the prestressed concrete course at UT, educating many leaders in the design, construction, and research community. The influence of his research has been widely recognized. Under the sponsorship of the Reinforced Concrete Research Council (RCRC) and the Post-Tensioning Institute (PTI), he carried out the definitive tests of multipanel, unbonded flat slabs that provided the basis for design provisions for the American Concrete Institution (ACI) code. The entire unbonded slab industry grew into a major construction market force on the back of this

code. He was a pioneer in supervising the experimental studies that formed the basis for the analysis of post-tensioned segmental box girder bridges—again, the technical background for the standards that launched a significant new technology. Ned led one of the nation's most successful high-performance concrete pretensioned bridge design-and-construction demonstration projects, in San Angelo, Texas, a project that was featured in an *Engineering News-Record* cover story. In 2003, he demonstrated the feasibility of precast, post-tensioned pavement slabs in a significant full-scale field project on IH-35 in Texas. His research on anchoring prestressing steel in concrete received the Precast Concrete Institute (PCI) Korn Award and the American Society of Civil Engineers (ASCE) T.Y. Lin Award. Ned's work was sound, innovative, and important. He was inducted into the National Academy of Engineering in 2000 "for contributions to development and education in prestressed concrete including unbonded tendon building slabs and high-performance concrete bridges."

More than his numerous teaching, administrative, and research accomplishments, Ned was a person of great human interaction. He took deep personal interest in the welfare of the students in his classes and the much wider base of students he came into contact with as a Graduate Advisor, Associate Dean for Student Affairs, and Administrator of the Engineering Loan Committee. Ned also served the wider University community as a trustee of the University Federal Credit Union for many years. He was a dedicated member of Highland Park Baptist Church, serving as a deacon, a Sunday school teacher, and in various other positions, as well as singing in the choir as a second tenor. He was a wonderful family man who cheerfully attended Girl Scout and Boy Scout campouts, co-chaired the Johnston Band Parents Association along with Martha, served as PTA Co-President and attended too many piano recitals, dance performances and band concerts to count. He enjoyed woodworking and furniture building. He loved to travel with Martha, and they enjoyed trips throughout the U.S. and Canada and to Peru, Brazil, Europe, China, Thailand, and Japan.

Ned is survived by his wife of sixty-one years, Martha Fontaine Burns; his daughter Kathryn Burns, Ph.D., of Chapel Hill, North Carolina; his daughter Stephanie Burns Wechsler, M.D., and Daniel Wechsler, M.D., of Durham, North Carolina; and his son Michael Burns, M.A. and Katherine Murphy Burns, of Austin, Texas; three granddaughters, Caroline Wechsler, Julie Wechsler, and Violet Burns; his brother, Alvin Burns of Dallas, Texas; his sister, Martha Helen Phillips of Tyler, Texas; and many other loving family members and friends.

This memorial resolution was prepared by a special committee consisting of Professor Emeritus James Jirsa (chair), Professor Emeritus John Breen, and Professor Michael Engelhardt.

Distributed to the Dean of the Cockrell School of Education on September 7, 2018, and posted under "Memorial Resolutions" at https://wikis.utexas.edu/display/facultycouncil/Wiki+Home.