FIFTY YEAR HISTORY OF THE CORPUS CHRISTI BRANCH

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Introduction

The City of Corpus Christi holds a special place in the history of the Texas Section of the American Society of Civil Engineers. The Texas Section was conceived in Corpus Christi in 1913, following a meeting of the Good Roads Association. Accounts of that historic occasion are given in the booklet entitled *The First Fifty Years, A History of the Texas Section American Society of Civil Engineers*. The first edition of this document was published by I.W. Santry, Jr. in 1964 and a second, updated edition was published by Fred P. Wagner, Jr. in 1993.


Beach Hotel, Site of the founding of the Texas Section

Although the Texas Section met twice yearly, many local civil engineers desired to meet on a more frequent basis. In 1931, the first branches of the Texas Section were formed in Dallas and Fort Worth, followed by the Brazos Branch in 1939 and the Houston Branch in 1943. After World War II, the formation of local branches accelerated. The San Antonio Branch formed in 1949 and Corpus Christi, Austin, El Paso, and the Northeast Branches were right behind them in 1950. Other branches were formed in the years to follow.

Background

The movement toward the formation of the Corpus Christi Branch began following the end of World War II when many deferred public and private engineering projects were getting underway. Engineering careers that were interrupted by the war resumed and new graduates were filling the demand for more civil engineers. Before the Corpus Christi Branch was formed, many civil engineers seeking association with fellow engineers were active in the Nueces Chapter of the Texas Society of Professional Engineers. The Nueces Chapter was organized in 1944 and, according to written history, was at that time made up mostly of civil engineers. In fact, four of

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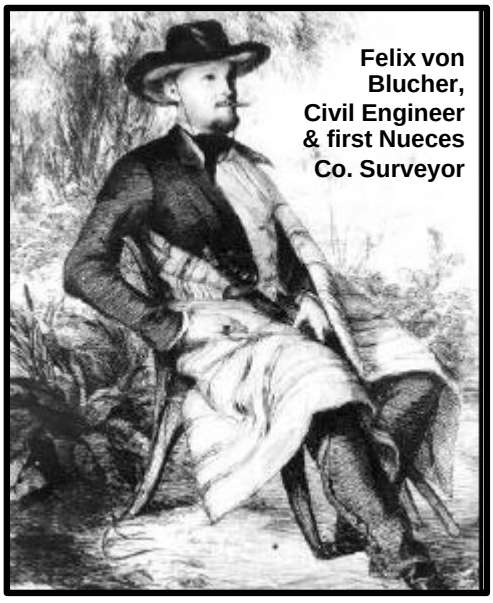
the founding members of the Nueces Chapter later became founding members of the Corpus Christi Branch in 1950. Conrad M. Blucher served as the first president of both organizations.

The History and Heritage Committee began chronicling the history of the Corpus Christi Branch about five years ago with the collection of all available historical material. There were many gaps in the recorded history during the early years of the Branch's existence. Trips were made to view records in the archives at Texas A&M University in College Station and to the Texas Section office in Austin to garner information to fill in these gaps and to supplement existing materials. Founding Branch members were interviewed to obtain personal perspectives of the early events. Over one hundred photographs from various sources were also collected to supplement the written history. These sources included the Texas Section office in Austin, the Harry Ransom Center at the University of Texas in Austin, the Corpus Christi Public Library, the Corpus Christi Museum of Science and History, the Port of Corpus Christi, the *Corpus Christi Caller-Times* (newspaper), and personal collections of local citizens. Previously published histories of the Texas Section and Branch histories of the El Paso and Houston Branches also helped in this endeavor. The history of the Nueces Chapter of TSPE, compiled by W.W. McClendon in 1973, provided valuable information on early Branch activities.

Contents of the Publication

As the title implies, the primary purpose of our historical publication is to record and preserve the first fifty years of the Corpus Christi Branch's history. It provides a comprehensive account beginning with the Branch's formation in 1950 and ending with the present year, 2000. But it goes beyond that. The publication also chronicles significant civil engineering events in the 150-year history of Corpus Christi. These include early public works projects, the birth of the Texas Section in Corpus Christi in 1913, and the Texas Section meetings held in Corpus Christi in 1929 (a week prior to the stock market crash), 1939, 1948, 1955, 1959, 1966, 1971, 1978, 1983, 1988, and 1994. Coverage is also given to meetings hosted in Corpus Christi to celebrate the 80th and 85th anniversaries of the Texas Section. Selected events and dates in the history of Corpus Christi are depicted on a timeline at the conclusion of our publication. Photographs of people, projects, and events are used extensively throughout.



Felix von Blucher, Civil Engineer & first Nueces Co. Surveyor

Historical Overview

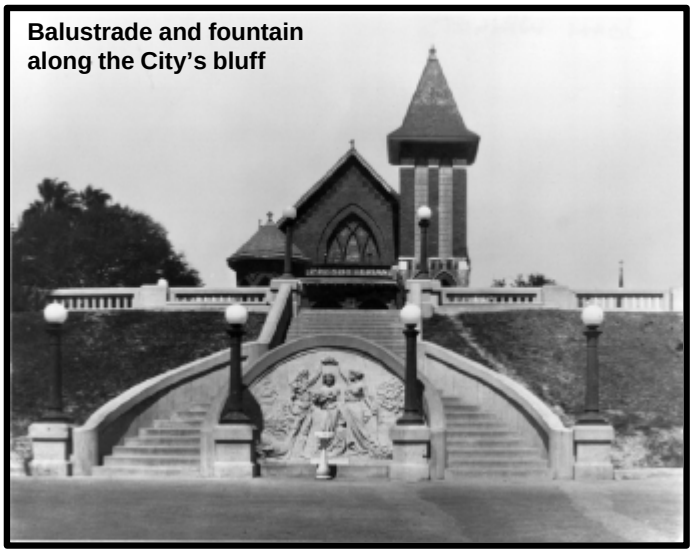
Civil engineering has played an integral role in the history of Corpus Christi from its early development as a trading post to the modern city it is today. One of the most prominent early civil engineers was Felix von Blucher, a nobleman from Germany with a Masters of Arts Degree in Civil Engineering. The von Blucher family of Corpus Christi (Felix, his son Charles, and his grandson Conrad) were civil engineers and land surveyors in South Texas for three generations. These three men held the position of Nueces County Surveyor almost continuously from 1852 to 1954. Their legacy continues today in the Conrad Blucher Institute for

Surveying and Science at Texas A&M University – Corpus Christi.

Between 1850 and 1900, the City's population grew slowly from about 650 to 4,703 residents. During this time local engineers struggled to bring deep water into the small city port, helped construct two railroads into the city, and began the long task of developing the City's infrastructure. By 1910, the City's population had almost doubled to 8,222 residents, and a third railroad was being completed into the City. Initial work was completed on the north jetty at Port Aransas, and authorization was given to the Army Corps of Engineers for construction of the south jetty and extension of the north jetty.

In 1913, when the Texas Section was conceived in Corpus Christi, the City was on the brink of a major metamorphosis. The population at this time was around 9,000. In the previous year, 1912, numerous major public works projects were completed, including: bringing deep water into Port Aransas; building a new City Hall; constructing a new $50,000 municipal wharf; securing a modern public water supply system; installing the first street lights; and opening the Beach Hotel on North Beach to meet the need of a growing tourist industry.

In 1913, when the nation was undergoing a national depression, the economy of Corpus Christi was booming. A young, progressive mayor named Roy Miller was elected that year. Miller ran on a ticket of modernizing the town, and is credited with wresting it into the twentieth century. The discovery of a major gas field in 1913 further fueled the area's economy. The Nueces Hotel opened just in time to host the founding members of the Texas Section while they attended the meeting of the Good Roads Association.



Balustrade and fountain along the City's bluff

Other engineering projects completed or underway during 1913 included: letting a contract by the Nueces County Commissioners to the firm of Bartlett & Ranney to design and supervise construction of the first causeway across the mouth of Nueces Bay; implementing major water improvement plans developed by consulting civil engineer Alexander Potter; constructing the first sanitary sewer collection system; surfacing ten miles of streets with bitulithic (asphalt) pavement; initiating installation of a natural gas system; nearing completion of a new County Court House; and letting a contract to consulting civil engineer Alexander Potter to design a balustrade along the City's bluff.

Over the next few years, Corpus Christi saw events of both prosperity and devastation. In 1916, a major hurricane with wind speeds of 100 mph and a tidal height of 5.9 feet above mean low tide struck the City, causing major damage along the bayfront. The newly constructed causeway was severely damaged and put out of service until repairs could be made. During that same year, prohibition was approved in a local election. At the national level, President Wilson signed into

law the Federal Good Roads Bill, appropriating $85,000,000 for national highway construction. This action "paved the way" for the creation of the Texas Highway Department in 1917, and set into motion a program of major highway improvements throughout the State.

On September 4, 1919, a severe tropical storm and tidal wave devastated the City causing widespread destruction and killing over 400 people. Wind speeds of 80 mph and a tidal height of 12.4 feet above mean low tide were recorded. Damages brought about by this storm are described in the November 1919 issue of Engineering News-Record in an article titled "The Tidal Storm at Corpus Christi and Its Effect on Engineering Structures", by Terrell Bartlett, of Bartlett & Ranney, Engineers, San Antonio, Texas. Engineer Bartlett states in his article, "The principal lessons to be learned from this storm are the great tidal height possible with one of the West Indian hurricanes, and – what has never before been demonstrated – the fact that the outer or barrier islands do not afford certain protection to the inner shore line". This storm brought about many changes in engineering design criteria and was a defining factor in the future development of Corpus Christi.

In 1920, the City's population had reached 10,522. During the next ten years, Corpus Christi would start reaping some of the benefits brought about by the 1919 storm. In 1921, the Texas Highway Department constructed a new causeway to replace the one washed away in 1919. In reaction to the storms of 1916 and 1919, landmark legislation was passed by the State in 1921. A portion of the State's ad valorem taxes on seven Gulf coast counties would be used for a period of twenty-five years to construct a seawall and breakwater to protect the City from future storms and tide surges. (In June 1939, the Legislature extended the tax remission for ten years to 1956.)

Port of Corpus Christi with railway-highway Bascule Bridge in foreground

In 1922, Congress designated Corpus Christi as the deep-water port for this area. The grand total initial expenditure of $4,000,000 was spent by local interests to fully comply with Federal requirements as a condition to digging the twenty one-mile ship channel from Port Aransas to the shoreline of Corpus Christi. This included $475,000 to erect a railway-highway bascule bridge over the entrance channel. Work on the project was completed and the new port was opened on September 14, 1926. A heavy rip-rap breakwater that was over two miles long was erected to provide some degree of storm protection for the City's bayfront. This project was completed in 1925 using State tax remission funds amounting to $1,530,000.

In 1929, the Texas Section held its fall meeting at the Nueces Hotel. Mayor Roy Miller and local civil engineer Robert J. Cummins gave talks on "The Development of Waterways" and "The

Development of the Port of Corpus Christi", respectively. Ten days later the stock market crashed, ushering in the great depression. The La Fruta Dam and reservoir, which was designed by Major John B. Hawley, consulting civil engineer for the City of Corpus Christi, was also completed in 1929. Unfortunately, the dam failed on November 30, 1930, less than a year after completion.

In 1930, the population of Corpus Christi was 27,742. During the next ten years it would more than double to 57,301. Progress continued during this time despite the great depression that gripped the rest of the nation. The ship channel was deepened to 32 feet, the first commercial airport was opened (Cliff Maus), the La Fruta Dam was rehabilitated, and Del Mar Junior College was established. Also, work was begun on the seawall, the City's first wastewater treatment plant began operation, the City's first major industry (Southern Alkali) was built, and the first oil refinery (Taylor Refining) began production. The Texas Section returned to Corpus Christi in 1939 for a spring meeting at the White Plaza Hotel.

Two large public works projects were completed in 1941 before the outbreak of World War II. On July 12, 1940, the Navy secured title to 2,050 acres of sand dunes southeast of the City for the construction of the Naval Air Station Corpus Christi (main station at Flour Bluff). The station was commissioned on March 12, 1941; eight months after title to the property had been secured. Then on July 1, 1941 the Corpus Christi Seawall and marina improvements were completed. This project was designed by consulting engineers E.I. Meyers and E.N. Noyes. It was constructed by contractor Jay DePuy of San Antonio (the same contractor who erected the Breakwater).

Seawall & marina improvements completed in 1941

The outbreak of the war put a number of construction projects on hold, nevertheless progress continued. The Driscoll Hotel (the City's largest) was opened in 1942. This same year the Intracoastal Waterway was completed to Corpus Christi, American Smelting and Refining began production, the Oso Wastewater Treatment Plant was put in service, and the ship channel was deepened to 34 feet to handle wartime tankers. Corpus Christi civil engineer Ernest Noyes served as president of the Texas Section in 1944.

During the second half of the 1940s, the City converted from the Strong Mayor to the City Manager form of government. Corpus Christi consulting engineer Conrad M. Blucher served as President of the Texas Section in 1947, and the Texas Section held its spring meeting at the Driscoll Hotel in 1948. The last link in the Intracoastal Waterway was completed to Brownsville, and the two downtown stormwater pumping stations were put into service.

On April 15, 1950, a meeting of local civil engineers was held to approve a constitution for a new Branch and to submit it together with an application and petition to the Texas Section Board

of Directors for approval. At the following spring meeting in Dallas, Section President Lowber D. Snow announced the formation of the Corpus Christi Branch. By the end of the year, the membership had reached twenty-four. The 1950s decade was a period of slow growth for the Branch. By the close of 1959, the Branch boasted thirty-nine local subscribing members, thirteen local non-subscribing members, and thirty-four subscribing members from nearby towns assigned to the Corpus Christi Branch. The average attendance at Branch meetings by local members was in the 70% to 80% range.

In 1951, the Nueces Chapter of TSPE formed an Engineers Club, supposedly to be a permanent headquarters for the Chapter. The ASCE Branch and other area engineers were included in the club to support it. Located in a building at 1522 S. Staples, it served mixed drinks and catered meals for ASCE and other Society meetings. When liquor laws were later changed, allowing the sale of mixed drinks at restaurants, the club was closed down. In 1952, the Branch joined with other engineering societies to form a Joint Engineers Council, which coordinated Engineers' Week activities. The JEC also arranged annual Christmas parties that were well attended by members of all the area engineering societies. Two Texas Section meetings were sponsored by the Branch in the 1950s. The 1955 Meeting was held at the Driscoll Hotel and the 1958 Meeting was held at Exposition Hall on Shoreline Boulevard.

A number of large public works projects were completed during this decade. A second causeway was completed to Padre Island in 1950 (the first one was destroyed by the 1933 hurricane). Nueces County built the second causeway as a toll road. It was a two-lane facility with swing barges at the Intracoastal Waterway and Humble Channel. The Texas Highway Department built a new causeway across Nueces Bay in 1950 to replace the wooden structure built in 1921. Also in 1950, a Halliburton plant on North Beach began producing Portland cement from oyster shell.

The Harbor Bridge replaced the Bascule Bridge at the entrance to the Port of Corpus Christi

In 1951, Nueces County purchased the Harbor Island Causeway and ferry system and operated it jointly with the Padre Island Causeway, charging a toll of one dollar. In 1952, the La Quinta Channel was dredged and the Reynolds Metal Plant began producing aluminum. Also this same year, a new City Hall was completed on Shoreline Boulevard. The O.N. Stevens Water Filtration Plant was put into service in 1955. Wesley Seale Dam was completed in 1958 and expanded the City's water reservoir at a cost of $7,540,000. Then, in 1959, the Harbor Bridge together with connecting expressway approaches, relocation of railway connections, and the Tule Lake Lift Bridge were completed. This was the largest public project undertaken in the City's history and involved the coordinated efforts of the City, County, State, Port of Corpus Christi, several Federal agencies, and four railroads.

By 1960, the City's population had reached 167,690. By the end of this decade, the Branch had a total membership of 101, with fifty-seven of these members residing in the Corpus Christi area. The Nueces Chapter of TSPE awarded six Branch members the honor of "Engineer of the Year" during the 1960s. The largest gathering of engineers in the City's history occurred at the 1962 Engineers' Week Banquet. In excess of 1,450 engineers and guests turned out to hear Ronald Reagan speak. After being introduced by Homer Innis, Mr. Reagan gave a moving speech on "The Price of Freedom".

In June 1962, the Branch held its meeting in McAllen, Texas. This was the first meeting outside of Corpus Christi. The Branch hosted the 1966 Texas Section Spring Meeting. The Driscoll Hotel was headquarters for the meeting.

On September 20, 1967, Hurricane Beulah struck Corpus Christi dumping 14.5 inches of rain on the City in a matter of hours, and causing major flooding throughout South Texas. Victor Jaeggli, Engineer for the Lower Nueces River Water District, spoke at the November Branch meeting and discussed the record rainfall that followed the storm. He reported that it was the largest flood on record and that Wesley Seale Dam functioned as expected with no apparent damage. The flow of 138,000 cfs was more than twice the previous flood on record and could have filled Lake Corpus Christi five and one half times.

Wesley Seale Dam and Lake Corpus Christi

Throughout the 1960s the City was making plans to create a new and larger water reservoir to serve the area's future water needs. The Branch got involved in the debate of selecting a new dam site and strongly supported the location recommended by Reagan & McCaughan, which was between Lake Corpus Christi and the City. Ultimately, the dam was built at the Choke Canyon site north of Lake Corpus Christi.

Some major projects completed during the 1960s included: building a second two-lane span of the Nueces Bay Causeway; deepening of the ship channel to 40 feet; initiating operations at the Allison Wastewater Treatment Plant; and turning over the Padre Island Causeway (renamed JFK Causeway), the Harbor Island Causeway, and the Port Aransas ferry system to the State Highway Department.

The decade of the 1970s was ushered in by hurricane Celia on August 4, 1970. Wind speeds in excess of 160 mph caused extensive damage and nine deaths were reported. The Branch hosted the 1971 Texas Section Fall Meeting at the Holiday Inn-Emerald Beach on Shoreline Boulevard. The meeting theme was appropriately named "Wind and Water".

Starting in 1972, an award for the "Young Engineer of the Year" was presented at the Engineers' Week Banquet. During the 1970s six Branch members received this award. Also during this ten-year period, seven civil engineers received the honor of "Engineer of the Year". In 1973 Branch member James P. Naismith served a term as Texas Section President. That same year Texas A & I University in Kingsville received a charter for an ASCE Student Chapter and a long tradition of holding an annual joint meeting with the student chapter members in Kingsville began. About this same time, the Branch got involved with the proposed deep-draft, in-shore port at Harbor Island. A committee was appointed to formulate a general resolution expressing the Branch's position on this issue and to present it to the Army Corps of Engineers.

During the 1970s, a Branch member was unofficially appointed to serve as "Bartender" at the dinner meetings. This member was responsible for bringing bottled liquor to the meetings where "set-ups" were provided by the restaurant. The "Bartender" was responsible for collecting money for drinks served and for maintaining a breakeven budget.

The Texas Section returned to Corpus Christi again in 1978 for its spring meeting. The meeting was held at the La Quinta Royale Hotel, 601 N Water Street, the site of the former historical Nueces Hotel. The meeting theme was "Civil Engineering – A People Serving Profession". The first concrete canoe race held in Corpus Christi was sponsored by the student members at the Yacht Basin. The student member registration was 240, and the total attendance of 600 exceeded the previous record attendance at a Texas Section Meeting by ninety-nine people.

A number of significant events and important engineering projects occurred during this decade, including: opening the City's largest enclosed mall (Padre Staples Mall) in 1970; opening Mustang State Park in 1972; dedicating the new and current Nueces County Courthouse in 1977; completing the largest offshore platform jacket ever constructed in the Gulf of Mexico (446-foot water depth) for Exxon Co. U.S.A. by Brown & Root at Harbor Island in 1978; and renourishing Corpus Christi Beach with river sand.

In 1980, the City's population had grown to 232,119. This decade, as with the last, was ushered in by a hurricane, this time named Allen. Wind speeds of 100 mph and a storm tide of 7.8 feet above mean sea level were recorded. This was the highest storm tide in Corpus Christi since 1919. The Texas Section Spring Meeting was hosted by the Branch in 1983 at the Holiday Inn-Emerald Beach. This marked the 70th anniversary of the Texas Section, and the meeting theme was "70 Years of Service – Texas Section 1913 – 1983". This meeting was marked by an historical event. A large group of civil engineers went to the site of the former Beach Hotel on North Beach and dedicated a marker commemorating the founding of the Texas Section in 1913.

Two of the founding members of the Corpus Christi Branch, Henry H. Nau and William W. Green at the Texas Section marker on North Beach
(Photo by Allan Hayes)

Another Texas Section Spring meeting was hosted in 1988 at the Marriott Hotel (currently named the Omni Marina Hotel). The theme of this meeting was “75 Years of Civil Engineering Contributions to Texas”. During this meeting a dedication ceremony was held on the bayfront naming the Corpus Christi Seawall as a Texas Section Historical Monument.

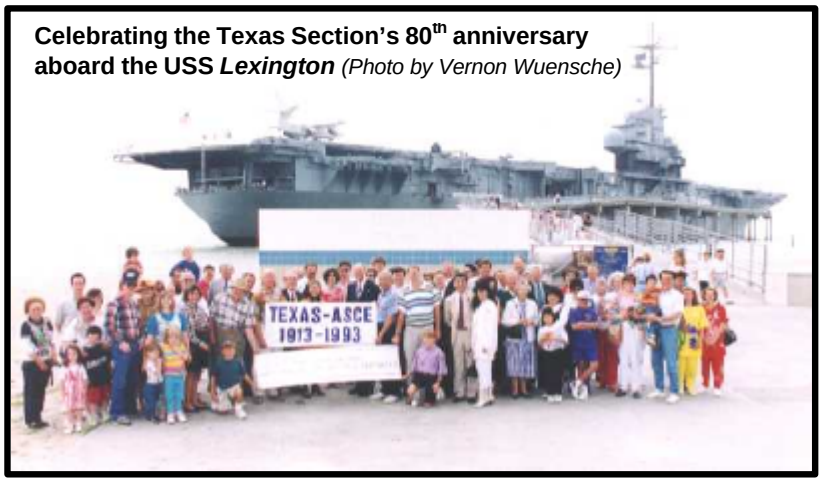
During this decade, Branch members took most of the honors at the Engineers’ Week Banquets. Six were named “Engineer of the Year”, and six were named “Young Engineer of the Year”. In December 1986, a special Branch meeting was held in Harlingen for the purpose of helping the Valley ASCE members break away from the Corpus Christi Branch and form a new branch. This led to the formation of the Rio Grande Branch the following year, thereby reducing the Corpus Christi Branch membership by about thirty-two members. Also in 1986, the Branch elected its first female president, Julie Kenfield. She is also believed to be the first female Branch president in the Texas Section. In 1988, the Branch appointed a “Newsletter Committee” and began publishing a monthly newsletter supported by advertisers. It replaced a former one page meeting notice.

Shell’s Bullwinkle platform leaving Port Aransas
(Photo by Glen Lanmon)

Noteworthy events and engineering projects taking place during the 1980s included: completing Interstate Highway 37 between Corpus Christi and San Antonio in 1981 (almost twenty years after the 140-mile highway was started); completing Choke Canyon Dam and reservoir in 1982; designating the Port of Corpus Christi as a Foreign Trade Zone in 1985; establishing the Conrad Blucher Institute for Surveying and Science in 1987; dredging the ship channel to a depth of 45 feet in 1988 (creating the deepest sea port on the Gulf of Mexico); and completing Shell’s Bullwinkle offshore platform jacket at Ingleside in 1989 (Nationally recognized when it received the ASCE Outstanding Civil Engineering Achievement Award for 1989)

By 1990, Corpus Christi’s population had grown to 257,453 and the Branch had 163 assigned members. Local civil engineers continued to be held in high esteem by the engineering community throughout this decade. At the ten Engineers’ Week Banquets held during the 1990s, eight civil engineers received “Engineer of the Year” honors and eight others were awarded “Young Engineer of the Year” honors. During this decade the Branch began a very successful and popular practice of arranging pre-meeting technical session presenters to sponsor dinner.

In 1993, the Branch hosted the 80th anniversary celebration of the Texas Section aboard the USS *Lexington* aircraft carrier that was dedicated as a museum in Corpus Christi Bay a year earlier. The 85th anniversary celebration of the Texas Section was also hosted by the Branch in 1998 in conjunction with the annual Texas Section Leadership Conference.



Celebrating the Texas Section's 80th anniversary aboard the USS *Lexington* *(Photo by Vernon Wuensche)*

The 1994, Texas Section Spring Meeting was hosted by the Branch at the Omni Bayfront Hotel, 900 N. Shoreline Boulevard. The meeting theme was "Civil Engineering: Past, Present, and Future". At the general session, the Branch was presented with a membership drive contest award for the medium size branch category. Net receipts from the meeting exceeded $15,000.

By 1997, a webpage (http://www.geocities.com/asce-cc) had been established to provide information to Branch members. A new Branch committee and Webmaster were appointed to keep all Branch information on the webpage current. Major projects completed during this decade include construction of the Moore Plaza Shopping Center, dedication of Naval Station Ingleside (Homeport), dedication of the USS *Lexington* Museum, and completion of the 101-mile long Mary Rhodes Water Pipeline to Lake Texana. By the end of the century, the Corpus Christi Branch had grown from thirteen founding members in 1950 to 214 total members at the close of the 1999-2000 year.

Concluding Remarks

Early in the preparation of this report, the need to preserve Branch records became very evident. It has been common for Branch records to be passed down to incoming officers year after year without a plan for permanent storage. This has resulted in the loss of much Branch history. The Texas Section historical records are currently archived at an annex of the Sterling C. Evans Library at Texas A&M University in College Station. An index of each stored file is available to anyone wanting to undertake historical research. The Corpus Christi Branch is exploring locations in the City to permanently house its records. Locations under consideration include the Corpus Christi Public Library, the Conrad Blucher Institute for Surveying and Science, and the Texas A&M – Corpus Christi Library.

Preparing the Fifty-Year History of the Corpus Christi Branch has been an interesting and challenging project and we welcome the opportunity to share this experience with others wanting to publish Branch histories. The Corpus Christi Branch and the members of the History and Heritage Committee would like to thank Ms. Janis M. Meyer, the entire staff of the Texas Section office, the Texas Section Board of Directors, and others too numerous to mention here. Compiling the Branch history could not have been accomplished without their generous moral and monetary support.