

HISTORY OF THE TEXAS HIGHWAY DEPARTMENT IN HIDALGO COUNTY

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DEPARTMENTAL INFORMATION EXCHANGE

STATE DEPARTMENT OF HIGHWAYS
AND
PUBLIC TRANSPORTATION

**HISTORY OF
THE TEXAS HIGHWAY
DEPARTMENT
DISTRICT 21**



**IN
HIDALGO COUNTY**



**District Headquarters
Pharr, Texas 1933**



**BY
James F. Snyder
District Engineer
1948-1968 Retired**

**District Headquarters
Pharr, Texas 1951**

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HISTORY OF THE
TEXAS HIGHWAY DEPARTMENT

IN

HIDALGO COUNTY

1922 to 1968

BY

J. F. SNYDER

DISTRICT ENGINEER, (Retired) 1948-1968



A TRIBUTE TO MR. SNYDER

Jimmy Snyder "placed his mark" on expressways and highways in the ten county area between Brownsville, Texas and the Webb/La Salle county line. He was a professional engineer with a mind to work, took pride in a job well done with service to Texas motorists and kept "good neighbors" along the highway right of way.

Planning, construction and maintenance of highways was Jimmy's job and as an employee of the Texas Highway Department he made sure of a "good scald" on that part. During his tenure with the Department Mr. Snyder watched District 21 grow from 491 miles of unimproved and paved roads to 2,481 miles of State maintained highways.

The Hidalgo County Historical Committee requested Mr. Snyder to write a history of the Texas Highway Department's activities in Hidalgo County. He vigorously searched files in District 21's headquarter's office to assure accuracy of this work. His following account of State highway activities has been used as a reference by District 21 personnel on many occasions. They have found it accurate, informative, and time saving.

My Snyder died August 21, 1979 in Kearney, Missouri where he lived close to his daughter, Jil. Interment was at Roselawn Cemetery in McAllen, Texas. The valley expressway will always be a memorial to this man of vision and courage.

G.G. Garcia

May 29, 1987

The writer came to Pharr in April 1932 when Highway District 21 was organized, was Assistant District Engineer until 1948 (less 3½ years in the Corps of Engineers during World War II) when promoted to District Engineer upon District Engineer J. W. Puckett's retirement.

The history of the State Highway Department in Hidalgo County goes beyond this date of 1932, however, and is so closely tied into the history of the State that it seems necessary to go back to the beginning of the State and explain the methods of financing road construction in the State and the counties. Also because there were roads (trails or routes) before the organization of the State Highway Department and even before the organization of Hidalgo County in 1852, that should be mentioned when talking about roads and highways.

Since Sal del Rey, located in the northeast part of Hidalgo County, was the chief source of salt for Texas, Louisiana and northern Mexico, early routes or roads were established in 1749 to Reynosa and Camargo and in 1753 to Meir. One route apparently was from Sal del Rey through the Laguna Seca area, then to a crossing of the Rio Grande near the mouth of the Rio San Juan where there is a sandstone bottom in the river. A second route was south from Sal del Rey through Llana Grande Grant to Rosario on the Rio Grande. Rosario Banco, Toluca Banco and the Fernandez Ranch in the area south of present-day Progreso must have been the location of Rosario. There was other road work in this area because the Cameron County Commissioners Court provided funds for road improvement in 1849. This area was in Cameron County until Hidalgo County was established in 1852.

The Military Highway is the old road or route best known by Hidalgo County residents and was located along the southern end of the county roughly following the Rio Grande. The part of this old highway most easily seen today is at the Fernandez Ranch near the north end of the Progreso International Bridge. It is the first east and west dirt road north of the Progreso Bridge. In 1932 when the writer came to this area, many sections of the old highway were plainly visible. There was an old iron-pipe pole telephone line still standing in places. This route was named the Military Highway because it was used by General Zachary Taylor during the Mexican War (1846-48) for hauling military supplies from Brazos Santiago Pass to Fort Brown in Brownsville and up along the Rio Grande to a military camp at Rio Grande City. This camp was established as Fort Ringgold in 1848 and named for the first U.S. officer killed in the Mexican War at Palo Alto.

There was a trail or route along this area, even before the Military Highway, used by the Oblate Fathers. St. Joseph Church at the Toluca Ranch and the Mission La Lomito south of Mission are on this trail.

Texas was admitted to the Union (the second time) in 1870 and with this secured position was ready to begin real development and expansion. To meet the need for economic and cultural growth, it became obvious that good roads were necessary. The county collected a tax of 25¢ on the \$100 valuation until 1883 to meet the expense of providing better roads.

In 1883, a more definite movement for good roads was started. A constitutional amendment provided for the County tax rate for general purposes to be lowered and provisions made for a road tax of 15¢ on the \$100 valuation. The revenue from this tax proved insufficient so another constitutional amendment was passed in 1890 that provided for an ad valorem road tax not to exceed 15¢ on the \$100 valuation.

Continued growth of the State and need for more and better roads called for more road revenue and in 1903 the Legislature passed a law authorizing counties to issue bonds for public road improvement. Later, provisions were made for any county, political subdivision or a defined road district to vote bonds for public roads and levy an ad valorem tax for payment of the principal and interest. Most of the early paved county roads constructed by Hidalgo County were funded from the sale of road bonds.

Texas was now entering a period of cultural growth that brought the horse and buggy, the rubber-tired family surrey and finally the automobile. The increased use of these conveyances demanded more and better roads, and in 1911 clubs and other organizations were formed to promote construction of a system of public roads. A State-wide association began an educational campaign in the interest of good roads. This resulted in the 1913 passage of a resolution asking the Legislature to create a state department that would furnish the counties information, advice and aid on the construction of highways.

As early as 1903, the Legislature began investigating a Bureau of Public Highways; the creation of the Office of State Expert Engineer in 1905; the appointment of a State Highway Engineer in 1907; the Office of a Commissioner of Highways in 1909; and in 1911 and 1913, the establishment of a State Highway Department with State aid for the construction and maintenance of public highways and the levying of a license fee on automobiles.

Each successive Legislature measure had failed and very little was gained in the good roads movement until the approval of the Federal Road Act on July 11, 1916, which provided for appropriation of Federal funds to aid the states in construction of rural post roads. This Act stipulated, however, that such funds would not be expended until the State had an organized and established Highway Department because the cooperation with the State would be through the State Highway Department. The Act provided that such Federal funds advanced must be matched with funds raised by the counties.

In order to secure the Federal funds appropriated for Texas, the 35th Legislature passed a law agreeing to the provisions of the Federal Aid Road Act, and on April 4, 1917, made provisions for the establishment of a State Highway Department. This Act or law further provided that upon an application from a county for highway construction, accompanied by appropriate plans and specifications, the Highway Commission was to grant State aid to the counties in the order in which the applications were received, but not to exceed 25 percent of the cost of the work and not to exceed 10 miles per year. In counties of high valuations where major highways were warranted, the Highway Department was authorized to extend aid not to exceed 50 percent and to limit the aid to 10 miles per year. In the fourth called session of this same 35th Legislature, the amount of aid was changed to a limit of 25 percent and not to exceed 10 miles per year. This Act also provided that all highways constructed with State aid were to be maintained by the county in which the improvements were made.

The 36th Legislature provided for acquisition by condemnation of timber, earth, gravel or other materials needed for highway construction or maintenance.

The 37th Legislature of 1923 provided for nine District Engineers to supervise construction.

The 38th Legislature provided for an Occupation Tax of 1¢ per gallon of gasoline with three-quarters of this tax to the State Highway Fund and one-quarter to the available School Fund. This Legislature also increased the maximum amount of State aid to the counties to 50 percent of the cost of the construction. This Legislature also made provisions that when sufficient funds accrued to the Highway Fund the Department should assume the control and maintenance of State Highways.

The Maintenance Division of the Department was then created and organized and the number of District Engineers raised to 18. The maintenance of all State highways was taken over January 1, 1924; however, the Department's funds, personnel and equipment for maintenance were limited. Since some of the counties already owned equipment, agreements were made with those counties for maintenance of State highways under the supervision of the State Highway Department. Hidalgo County was one of those counties and such arrangements continued until 1927 when the Maintenance Department began maintenance with their own forces and equipment.

The Federal Aid Act of November 9, 1921, amended the Act of 1916 so as to provide that Federal funds appropriated for a State shall be matched by State funds, and that the Highway Department shall have "direct control" of the funds and maintenance of Federal Aid highways.

This Act required a radical change in highway construction procedures and in 1925 the 39th Legislature enacted laws that relieved the counties of construction responsibility and gave the Highway Department the responsibility of making surveys, plans, specifications and supervision. The duty of the counties was reduced to aiding the State in construction of highways by contributions agreed upon by County Commissioners and the State Highway Department, with such contributions paid into the State Treasurer.

The 39th Legislature also provided authority to acquire land needed for highways by either purchase or condemnation. These procedures were handled by the counties since right of way for highways was the responsibility of the counties.

The 40th Legislature raised the gasoline tax from 1¢ per gallon to 3¢ per gallon from March 16, 1927, to September 1, 1928; after which the tax was to be 2¢ per gallon.

In 1929 the 41st Legislature provided for a reduction and redistribution of automobile registration fees and increased the gasoline tax from 2¢ to 4¢ per gallon.

The Legislature in 1932, in special session, diverted the net proceeds from 1¢ of the State gasoline tax from the State Highway Fund to a special fund for the retirement of outstanding county and road district bonds, the proceeds of which were spent in the construction of highways that were then, or at any time, on the State Highway System. The funds for Hidalgo County by this action were quite substantial. This diversion left the Highway Department with proceeds from only 2¢ gasoline tax and approximately two-thirds of automobile registration fee, one-third going to counties for lateral road improvements.

District 21 of the Texas Highway Department was created April 1, 1932, from District 16 at Corpus Christi and encompassed the 10 southernmost counties of the State; namely, Brooks, Cameron, Willacy, Hidalgo, Starr, Duval, Jim Hogg, Zapata, Kenedy and Webb. Personnel and equipment located in this area were transferred with the counties.

The Administration of the State Highway Department at this time was Gibb Gilchrist, State Highway Engineer, W. R. Ely, Cone Johnson, and D. K. Martin, Highway Commissioners.

Personnel in the area created as District 21 numbered 244, with approximately 25 in Hidalgo County. Total State highway mileage in the District was 491 miles, with approximately 90 miles in Hidalgo County.

The new District was created so as to place additional engineering personnel in the area where highway expansion was needed and to get Highway representation closer to the people.

State-maintained highways in Hidalgo County at the time District 21 was organized were S.H. 66 (now U.S. 281) from Brooks County line south to Pharr, and S.H. 4 (now U.S. 83) from Starr County line to Cameron County line. Also included was a conditioned designation S.H. 48, from Mission south to Madero and on east to Cameron County line.

District 21 began operations on April 1, 1932, under the supervision of J. W. Puckett, District Engineer. The first District Headquarters Office was located in Pharr upstairs in the bank building at South Cage and Caffery, now the Hale Hardware Store. The first District Shop was on North Cage in Pharr in an old filling station.

The first order of business was to establish a headquarters. When considering the location and construction of a new District Headquarters buildings, the surrounding cities, as well as Pharr, were considered. Pharr offered to pay half the cost of the property needed, so Pharr was selected as Headquarters.

Plans and specifications were prepared for office and shop buildings. Contract was let to R. W. Briggs & Company in January 1933 and work was completed in late August 1933, just in time for the big hurricane on Labor Day 1933.

District Supervisory Personnel in 1933, when the District Headquarters moved into the new office building on North Cage, were J. W. Puckett, District Engineer; J. F. Snyder, Assistant Engineer; L. McKenzie, District Accountant; H. L. Teer, Warehouseman; C. H. Franks, District Mechanic; S. R. Busby, Office Engineer. Other supervisory personnel in Hidalgo County at that time were P. S. Devine, Resident Engineer; E. W. Pile, Maintenance Foreman.

The next order of business for the new District was to secure engineering personnel and establish engineering residencies for making surveys, preparation of plans and specifications for highway construction. One residency was established for Hidalgo County and located in Pharr. The existing maintenance headquarters were retained at their previous locations and the maintenance headquarters for Hidalgo County was located at McAllen. Mr. E. W. Pile was Maintenance Foreman.

The first occurrences of importance to the new District in 1932 were two floods in the Rio Grande that put water through the floodway system for the first time. The first flood was in September, the second in October. All county roads crossing the floodway were closed for several days, closing as the flood moved downstream and opening as the flow subsided. This floodway was constructed by Hidalgo and Cameron Counties to provide relief from the Rio Grande flooding from Hidalgo to Brownsville. One leg of the floodway began at a very low area near the river and

southwest of Mission and was called the Mission Floodway. The other leg began at a low area called Hackney Lake, just upstream and north of Hidalgo. Levees were built at these low overflow areas to lead overflow water to the east and northeast to a junction south of and between McAllen and Pharr, where the system formed one floodway. This channel or floodway then followed low ground toward the east, swinging to the southeast to a point $1\frac{1}{2}$ miles from the river south of Donna, then turned northeasterly to a point south of Weslaco and Mercedes where the floodway split. One leg following the Arroyo Colorado to Harlingen, Rio Hondo and east to the Laguna Madre. The other leg turned north along the west edge of Mercedes, ran north about 12 miles and within a mile of La Villa, then easterly into Cameron County and across the northwest corner of the county and crossing into Willacy County about 7 miles east of Sebastian. The floodway then continued in a northeasterly direction past Santa Monica to a point approximately $7\frac{1}{2}$ miles east, where water is released into the flats of Laguna Madre about 3 miles north of the Arroyo Colorado.

The location of this floodway is described rather carefully because as long as it exists it will affect road building and travel from west of Mission where it begins to a point within $7\frac{1}{2}$ miles of its end, for a distance of approximately 75 miles, 49 of which are in Hidalgo County.

The Highway Department's only trouble with this 1932 flood was at Mercedes, the only State highway crossing with the floodway in Hidalgo County at that time, where it was necessary to work and guide driftwood and small buildings under the wood trestle to prevent the collection of drift against the structure. The only damage was the levee being washed out on S.H. 96 where the north floodway crosses.

The International Boundary and Water Commission (IB&WC) took over the responsibilities of the floodway system in the early 1930's.

The principal objective of the new District was to plan and construct a public road network adequate to serve the needs of the area. The District Engineer began an immediate review of existing State highways and their needed improvements, county paved roads that should be added to the State System and county dirt roads that should be paved and placed on the State System. The District Engineer met with county and city officials to listen to their needs and thoughts concerning new and improved roads. The District Engineer discussed his ideas and thoughts relative to new designations with the State Highway Engineer and, following an agreement as to which roads seemed most important, presented the recommendations to the Highway Commission for consideration.

HISTORY OF ROADS EXISTING WHEN DISTRICT WAS FORMED

Before starting the history of events in District 21 road building, the story of the existing highways should be told. The histories will cover the period from the first construction to 1968.

U.S. Highway 83 from the Starr County line through Mission, McAllen, Pharr, San Juan, Alamo, Donna, Weslaco and Mercedes to the Cameron County line was constructed with State, County and Federal funds during the years of 1924, 1925 and 1926 when direct supervision and control passed from the county to the State in 1925. The records do not reveal the supervisory role, whether County or State, but do indicate that they were Federal Aid projects.

U.S. Highway 83 from the Starr County line to Mamie (a switch track on the Missouri Pacific Railroad $1\frac{1}{2}$ miles west of Mission) was built under Federal Aid Project (FAP) 376 and was completed in 1926. Type of construction was flexible base with limestone rock asphalt surface. In 1934-35, the Highway Department widened the crown and flattened the slopes under a National Recovery Work Relief (NRWR) Project (Federal relief project to create jobs during the depression). In 1939 the drainage structures were widened and in 1940 the base and pavement. In 1944 the highway was resurfaced. During 1966-67 the Highway Department rebuilt the entire section of road on widened right of way. From the Starr County line east, two lanes were reconstructed to a point just beyond La Joya; then four lanes were constructed on new location from the Penitas Road area to a junction with U.S. 83 Expressway at Mamie.

U.S. Highway 83 from Mamie to Pharr was constructed in 1924 under FAP 375. This construction consisted of concrete base and limestone rock asphalt surface. The roadway section of this road was built on 60-foot right of way with narrow shoulders, steep slopes and deep ditches. The road was adequate at the time of construction but, with increased motor vehicle traffic, became hazardous by the middle 1930's. An NRWR Project was approved to flatten the slopes and fill the ditches to a shallow depth. In this flat delta area the drainage was very poor, so a shallow ditch served as good as a deep one and collected less water to stand and stagnate. After securing borrow sources for soil, the trucks were loaded by hand with shovels, dumped on shoulders and slopes of the road and spread by hand. Hundreds of men were employed. In 1937 an NRWR Project was approved, extending from Mission to Weslaco, to widen the base two feet on each side and widen the pavement one foot on each side. In 1939-40 the 18-foot pavement was widened 14 feet with concrete pavement on the railroad side, and surfaced with asphalt to make a three-lane road.

U.S. Highway 83 from Pharr to the Cameron County line was constructed in 1924, 1925 and 1926 under FAP 301 and FAP 374. The type of construction from Pharr to Val Verde (FAP 301) consisted of 15-foot wide flexible base with an 18-inch flat concrete curb on each side for a total width of 18 feet and surfaced with limestone rock asphalt. From Val Verde to the Cameron County line (FAP 374 A, B, BII) the pavement was concrete base and limestone rock asphalt surfacing, the same as from Mamie to Pharr. The same type NRWR jobs as between Mission and Pharr were completed on this section. East of Mercedes a Works Progress Administration (WPA) Project was approved to lay concrete drainage pipe where drainage was necessary and then fill the extremely deep ditches to normal ditch depth. A Highway Department project to widen the pavement 14 feet on the railroad side was approved and completed giving a three-lane road from Mission to the Cameron County line. Another operation that was performed along with the slope-flattening and ditch-filling jobs was the three-up mile team and fresno work of leveling out the ridge of soil between the road and railroad ditches and forming one common ditch. This was done from Mission to Harlingen in Cameron County.

U.S. Highway 281 from Brooks County line to Pharr (FAP 250 and FAP 301) was constructed in 1922 and 1925. These projects were under the direct supervision of Hidalgo County personnel. From Brooks County line south to San Manuel, the pavement was flexible base (poor-quality caliche) with limestone rock asphalt surface. The specifications called for "hot mix asphalt." Since it would have to be hauled 35 miles in wagons, it could not be done. In 1934-35 the base and surface were reconstructed and widened under an NRWR Project, from seven miles south of Brooks County line to San Manuel. In 1937, the section from Brooks County line to seven miles south was reconstructed with concrete pavement. The section of flexible base and asphalt surface from San Manuel north to the concrete pavement was under continuous heavy maintenance and reconstruction of short sections. In 1952-53, caliche shoulders were added for the entire section from San Manuel to the Brooks County line.

From Edinburg to San Manuel, the pavement was flexible base (caliche) with limestone rock asphalt surface. This pavement was reconstructed in 1934-36 and the base and surface widened to 24 feet and 20 feet respectively. Continual improvement to short sections and heavy maintenance were the order of the day from 1937 to 1954. There were several rather sharp curves on this section as a result of the original location dodging waterholes or adjusting to land lines. To ease those spots, additional right of way was secured and two additional traffic lanes were constructed (as well as easing the curvature on the existing lanes some) to provide a four-lane divided highway. On the longer curves additional right of way was secured and two additional traffic lanes were constructed to provide a four-lane divided

highway. Finally, in 1963-64, with additional right of way secured to give 300-foot width, two new traffic lanes were added to tie into the short four-lane sections and also extended to two miles north of San Manuel. This construction provided a four-lane divided highway from north of San Manuel to Pharr.

U.S. Highway 281 from Edinburg to Pharr was constructed in 1925 under FAP 301. The type of construction on this project consisted of a 15-foot wide flexible base with an 18-inch flat concrete curb on each side for a total width of 18 feet. Surfacing was with limestone rock asphalt. In 1934 and 1935 the slopes were flattened and deep ditches eliminated under an NRWR Project. This project was to provide jobs for the unemployed and everything except the hauling of the soil was done by hand. In 1945-46, the pavement was widened six feet on the east side and resurfaced. Heavy maintenance continued, including another resurfacing job, up to 1954. In 1954-55 the right of way was widened to 100 feet and the road reconstructed to a four-lane divided highway. There were two additional traffic lanes constructed on each side of the existing pavement and the 15 feet of flexible base pavement between the two 18-inch curbs were removed. The median area was backfilled with soil for planting and beautification. Paved shoulders were added in 1956 and the pavements were resurfaced. Palm trees and bougainvillea shrubs were planted in the median area. Two types of colors of bougainvilleas were used: the purple Convent and the red Barbra Karst.

The first designation in Hidalgo County following the organization of the District was an extension of S.H. 66 (U.S. 281) from Pharr to the International Bridge at Hidalgo. Highway Department operations stopped at the river levee on the approach to the bridge.

At that time it was considered inappropriate to expend public funds to tie into or with private enterprise. This designation was made in early 1932 and a Highway Commission Minute in July 1932 provided authority and funds for the necessary surveys, and plans and specifications to pave the remaining section of this designation. Hidalgo County had paved from Pharr south 3.76 miles in 1928, and also from McAllen south to the International Bridge in 1927, a portion of which (from one mile east of Hidalgo to the International Bridge) was on the new designation. Plans and specifications were prepared, right of way was secured by Hidalgo County, the necessary funds provided in February 1934 and the contract for construction was let. R. W. Briggs & Company was successful bidder. Construction was completed in late 1934 and the designated route placed on the Highway System for maintenance.

State Highway 107 from Edinburg to the Cameron County line was conditionally designated in June 1932. As the conditions (which were mostly right of way) were met, the Highway Department took the road over for maintenance. The section from La Villa to the Cameron County line was not open except for the crossing of the floodway. In December 1935, authority was granted to make location survey for the new route and to prepare plans and specifications for grading and small structures. Hidalgo County secured and fenced the right of way. Grading was done in 1936. Base and surface construction was done in 1942 and taken on the State Highway System for maintenance. This section of road was rebuilt in the middle 1950's.

The IB&WC widened the floodway, raised the levees and dug a pilot channel through this area in 1939 and constructed a concrete structure in the pilot channel in 1939-40.

The Edinburg to La Villa section of S.H. 107 was constructed in 1928 by Hidalgo County. Construction was flexible base with asphalt surfacing on 60-foot right of way. An unusual project for the Highway Department in 1938 was the sidewalk for school children from Elsa to the Elsa-Edcouch School and on to Edcouch. The Highway Department prepared the subgrade for this sidewalk and a contractor working for the school placed the asphalt. In 1940, the roadbed was widened, slopes were flattened and drainage improved. In 1941, an asphalt seal coat was applied. In 1949, 1950 and 1951, sections of the road were reconstructed using flexible base with asphalt concrete surfacing. In 1954, the road was resurfaced and then again in 1958 a seal coat was applied. Extra right of way was secured by Hidalgo County and the road from Edinburg to one mile east of La Villa was made into a four-lane divided highway in 1965 and 1966.

State Highway 107 from Edinburg to Mission was designated and taken over for maintenance in 1940. This road was built by Hidalgo County in 1929 and the asphalt surface was deteriorating rapidly. The Highway Department placed an asphalt seal coat on the surface to stop raveling and help preserve the road until funds became available for reconstruction. Heavy maintenance continued until the beginning of World War II when most road work stopped. In 1948 and then again in 1951, sections of the road were reconstructed, drainage and irrigation structures widened and asphalt surface applied. In 1965, the section from Edinburg to S.H. 336 was reconstructed to four lanes.

The next designation in the new district was S.H. 186, December 1932 and January 1933, from S.H. 66 (U.S. 281) east to Raymondville, 9.2 miles of which was in Hidalgo County. The location surveys were made and approved and right of way was secured and fenced by Hidalgo County. In July 1933, the time of the Great Depression, Federal funds were made available for highway construction to create jobs for the unemployed. Jobs using mostly hand labor were preferred. With the right of way

secured and fenced, an NRWR Project was programmed in 1935 to do the clearing and grubbing by hand. When the clearing and grubbing was completed, a Works Progress Project was programmed in 1936 to do the grading and small drainage structures. Grading was roughed in with machinery and finished by hand labor.

The highway was maintained as a dirt road until 1939 when an experimental soil-asphalt-stabilized base was constructed. Each District at that time was required to have at least one experimental job.

In 1940, short sections of the soil-asphalt base were reconditioned by adding only select sandy soil and remixing. An asphalt surface was then applied. In 1955 the road was reconstructed by adding caliche and widening, then asphalt surfacing. The shoulders were paved in 1968. There is one place on S.H. 186 from which Sal del Rey can be seen, 3.8 miles east of U.S. Highway 281. There is a bronze plaque at this point.

The great hurricane of 1933 blew in on Labor Day, September 4 and 5. High winds and heavy rains had reached the Pharr area about 4:00 p.m., September 4th and continued until noon the next day. While everyone was secured at home or in a strong building, the District Engineer routed the writer out about noon to assess the damage. It did seem a little soon because sheets of galvanized iron roofing were flying through the air like razor blades. Heavy damage to residential areas, business buildings, industry, vegetable and citrus crops occurred. The heaviest damage seemed to be in the eastern part of Hidalgo County and the western part of Cameron County. Damage to the State Highway System was very light since only U.S. 83 and U.S. 281 were on the system. Quite a lot of debris was moved from the pavement. Telephone and power poles were down on roads in several places but the utility companies removed these as fast as possible. Trucks and personnel were sent to the District by the Austin Office. Since they were not needed for highway purposes, they were used to help the stranded and destitute residents. Total cost to District 21 was \$6,400. The flood that followed on the Rio Grande caused the same trouble at the timber trestle crossing floodway at Mercedes as did the 1932 floods. Trash and driftwood "hung up" on the timber trestle. Newly designated U.S. Highway 281 south of Pharr was closed at the floodway for several days.

In 1933 a Landscape Engineer was hired by the Highway Commission to counsel and advise the districts on roadway landscaping. This started the roadway beautification in Hidalgo County. All maintenance and construction personnel were coached toward this goal. This was a popular policy and District 21 moved into the program rapidly since District Engineer J. W. Puckett was already oriented along this theme. As early as 1928 in west Texas, Puckett would remind the writer, "don't cut down that tree, we'll leave it for a

watermelon tree." A "watermelon tree" was a place where a person could pull off the road, get in the shade and cut a watermelon. It is nice to think that those watermelon trees might be the first roadside parks. A roadside park was constructed on U.S. 281 Spur at the two canals 1.5 miles east of Hidalgo in the late 1930's.

In 1935, the Highway Commission authorized funds to complete the NRWR projects that were started for relief to the unemployed because that labor was no longer available. This must have been when the "give away" programs started.

In 1935, Project NRS 785 was approved for concrete paving on U.S. 281 from Progreso southeast to a junction with an asphalt-paved road 4.5 miles south of Mercedes. The project was completed in 1936. The asphalt road mentioned above began at Mercedes and ran south to the old Military Highway at the end of NRS 785 to the Cameron County line. This section of road from the end of NRS 785 to the Cameron County line was built by Hidalgo County in 1928 and taken over for maintenance in 1936. There was an asphalt-paved road or spur off U.S. 281 leading to the International Bridge to Rio Rico, Mexico. This International Bridge was washed out during the Rio Grande flood of 1941.

In 1935, additional land was purchased adjacent to and back of the District Headquarters layout for the Hidalgo County Maintenance Section. The maintenance section located at McAllen was moved to Pharr.

About this time the Highway Department developed a nursery at District Headquarters for propagating their own plants for highway beautification. Mr. J. E. Pitman was employed as District Landscape Supervisor.

There was a flood on the Rio Grande in late 1935 that washed out the earth embankment on the approach to the International Bridge between the river levee at Hidalgo and the bridge. This approach had just been taken over for maintenance by the Highway Department and the washout was repaired by a special maintenance job by the State. It was taken on the system for maintenance in early 1936. All county roads crossing the floodway were closed by the Rio Grande floodwaters from the 1935 flood.

A policy was adopted by the State Highway Department in 1936 to furnish and maintain a 4" x 4" post for rural mailboxes and to gravel a turnout from the pavement to the box for the convenience of the rural mail carrier. This was a very popular procedure.

In connection with the Texas Centennial Exposition, the Highway Department erected a granite monument for each county in the State with bronze inscription plates giving a brief history of the county. The monument for Hidalgo County was placed 1½ miles north of the Courthouse Square on U.S. 281, but later was moved to the new Courthouse Square.

In 1936, the Highway Department entered into an agreement with W. O. Washington, Civil Engineer at Brownsville, to study and prepare a Master Highway Plan for Hidalgo, Cameron, and Willacy Counties. This was the start of the advance planning for the Valley Expressway System.

In 1938, the county roads crossing the floodway were closed by the September flood, and again by the October flood.

The District Headquarters staff was constantly growing because of increasing highway activity, so in 1939 the District Office Building was enlarged by adding new wings on each end that almost doubled the size.

In 1939, the first major landscape project was initiated. From Pharr south to Hidalgo on U.S. 281 and U.S. 281 Spur, groups of palm trees, tiger apples and other shrubs were planted in areas where interference with maintenance would be at a minimum.

State Highway 336 from S.H. 107 south to U.S. 281 Spur at Hidalgo was designated and taken over for maintenance in 1940. The section from McAllen to Hidalgo was constructed by Hidalgo County in 1927, including the two timber trestles crossing the floodways and was nicknamed by local and county citizens as the "Nickel-Plated Road to Hell" partly because it was quite expensive but mostly because it led to the gambling and drinking at Reynosa.

From McAllen south to Spur 281, an asphalt seal coat was applied in 1943. In 1945 base and surface were widened. In 1947 the two timber trestles across the floodways were rebuilt by placing concrete decks. In 1950 the highway was again resurfaced and caliche gravel shoulders were added to the pavement in 1951. In 1965-66 the highway was completely reconstructed.

The north section from S.H. 107 to McAllen was built in 1929 by Hidalgo County. An asphalt surface treatment was applied to the pavement in 1943. In 1955 this section was completely rebuilt to 24-foot pavement, with all-weather shoulders. In 1960 the shoulders were paved with asphalt.

In 1966, McAllen proposed to lengthen the runways at the airport and requested that S.H. 336 be relocated to the east around the runway extensions. The Highway Commission agreed subject to McAllen paying for the cost of relocation and construction of a like facility. McAllen agreed to this plan but before work could get underway the great flood following the heavy rains of Hurricane Beulah hit.

Following this flood the IB&WC changed their floodway plan. The Hackney Lake floodway was to be enlarged and the Mission floodway to be abandoned. This eliminated the need for the high water crossing on the Mission floodway and reduced the cost of

relocating S.H. 336 to the City of McAllen but, of course, created a problem for the Highway Department at the Hackney Lake floodway. Plans were completed for the relocation of S.H. 336, contract was let for reconstruction and work was done in 1968-69.

A considerable amount of detail concerning the construction, type of reconstruction, type of maintenance and dates of such work has been given for those State Highways that were in existence before, and those designated since, the organization of this District to help the reader to better understand the tremendous problem of maintaining a first-class highway system. In addition to the major projects listed and discussed for each of the preceding highways, there were numerous special improvement projects for each road such as lengthening culverts, lengthening irrigation siphons, flattening or superelevating curves, raising grade in low areas subjected to flooding, strengthening base in distressed areas, sealing sections where surface shows deterioration, improving edges and, of course, the ever-present daily maintenance.

With the threat of war in 1939, 1940 and 1941 growing, and with increased armament and defense building of training camps and airfields, the road-building program began to slow down and the last construction project in Hidalgo County before the war was from Elsa north to S.H. 186 under FAS 111-A. The project provided a mid-valley outlet to the north and resulted from District planning to provide a system of highways to meet the needs of the people.

With the declaration of war with Japan on December 7, 1941, and Germany on December 11, 1941 (World War II) engineering personnel began joining contracting firms and government agencies for construction of training camps and airfields. Everyone and everything that was geared for road building, except for defense purposes, came to a grinding halt and the highways declared expendable. This left the districts with little to do except planning and maintenance work on a reduced scale. Only minor construction work was done and was more heavy maintenance than construction.

The writer left the Highway Department on May 31, 1942, served with the Corps of Engineers in New Mexico building airfield runways, then to the Middle East (believe it or not) building roads on the Russian supply route, then to Germany and then with the German surrender on May 7, 1945, returned to the United States. With the surrender of Japan on August 14, 1945 the writer was discharged from the Army and returned to the Highway Department in October 1945.

With the end of the war in August 1945, the Highway Department geared itself for an expanded highway program and especially the reconstruction of highways badly deteriorated from the war years.

A new concept of highway building was started, the Farm-to-Market Road System. This system was conceived by the Highway Department Administration during the war years and with the war over, began planning and construction on a three-year Farm-to-Market Program. The passing of the Colson-Brisco Act in 1949 started the most dramatic rural road building program in history.

During the planning of the Farm-to-Market System it was realized that many of the county roads taken into the system would be burdened with unpaid bond indebtedness. If these bond debts were assumed by the State, as provided by the 1932 law, it would be very expensive and interfere with the development of the Farm-to-Market System. In 1943, Senate Bill 348 of the 48th Legislative Session was passed prohibiting the assumption of bond indebtedness on any county road taken into the Farm-to-Market System.

The first farm-to-market road in Hidalgo County was designated on May 18, 1943. This road, designated F.M. 88, began at Elsa, junction with S.H. 107, and extended south through Weslaco to Progreso and was taken over for maintenance in July 1944.

This road was constructed by Hidalgo County in 1930 and was concrete pavement. The timber trestle across the Arroyo Colorado Floodway was in poor condition and deteriorating rapidly, so in 1948 the Highway Department removed this trestle and replaced it with a low water concrete structure. This proved to be quite unpopular because the road was closed during flooding in the Rio Grande. In 1962, the route of F.M. 88 was changed to run straight south from Weslaco to U.S. Highway 281 and a high water concrete structure was built across the Arroyo Colorado Floodway.

The section of F.M. 88 between Weslaco and Elsa was reconstructed to 26-foot pavement with 10-foot paved shoulders in 1957.

In November 1943, the F.M. 88 designation was extended north from Elsa to S.H. 186 and took in the road paved by the Highway Department in 1942 under FAS 111-A.

In 1952, F.M. 88 was extended from U.S. 281 just east of Progreso to the International Bridge on the Rio Grande.

F.M. 681, the road from Cantu to Moore Airfield, was built in 1942 as a war highway by the Highway Department for the government and was to be maintained, by agreement, through the war to a time six months after the war.

The Highway Commission designated this road as F.M. 681 and assumed maintenance in April 1946. A short section of this highway from Cantu west two miles was built by Hidalgo County in 1929.

When the writer returned to the Highway Department following World War II, he was given the three-year Farm-to-Market Road Program and told to run with it. This was a fair-size job as you will realize when you see the projects listed for Hidalgo County, knowing that the program covered all 10 counties of District 21.

Projects approved for Hidalgo County were as follows:

1. F.M. 490 from junction U.S. 281, 10 miles north of Edinburg, east to Hargill.
2. F.M. 491 from La Villa north to Willacy County line.
3. F.M. 492 Goodwin Tract Road.
4. F.M. 493 from Donna south via old sugar mill to U.S. Highway 281.
5. F.M. 494 from end of concrete pavement on Sharyland Road, north to S.H. 107.
6. F.M. 495 from Ware Road, one mile north of U.S. Highway 83 in McAllen, east to Val Verde Road.
7. F.M. 676 from S.H. 107 at Alton, east to F.M. 494.

The farm-to-market roads were to be of light design, 20-foot base with 18-foot asphalt surface and to follow existing roads if possible and practical. Major drainage was handled with low water crossing for the present. It was hoped to keep the costs to around \$5,000 per mile. This was done in the upper counties of the District but in the Lower Valley it was not possible. Base material was non-existent in the east two-thirds of Hidalgo County; numerous Water Improvement District irrigation canals and drain ditches were involved. Paved county roads had to be crossed, railroad crossing required planking and utilities of all kinds interfered in this county of heavy population, plus high land valuation that made high right-of-way costs to the county.

Engineer personnel was scarce following the war so surveys, plans and specifications proceeded slower than normal but they were accomplished. Right of way was secured by Hidalgo County, contracts were let and construction proceeded to completion. The roads were taken over for maintenance as completed.

During the time these farm roads were being constructed and completed, other construction projects on State and State-Federal roads were underway. The reader will recall that the history of each such highway was given from its first construction through to the year 1968.

The planning for a major highway running the length of the Lower Valley, from near Mission to Brownsville, roughly paralleling the existing highway U.S. 83, began with the Washington Report of 1936. The results of this study were given to the county and city officials for their consideration.

In 1936, the Highway Planning Division began accumulating information on highway traffic and it was around 1940 when sufficient data was at hand to analyze, with any degree of accuracy, the traffic needs of the Valley.

It was not until after World War II that planning to any great degree got underway again. Origin and Destination Surveys to determine where traffic originated and where it was going were made, traffic census and traffic volume projections were continued. The data accumulated by the Planning Division and the Bureau of Public Roads on traffic and traffic behavior clearly outlined the need for a multiple-lane divided highway.

Approximately 75 percent of the population and approximately 8 percent of the commercial and industrial activities between Mission and Harlingen were largely confined to a strip about three miles in width from about three-quarters of a mile south of U.S. 83 to about two and one-quarter miles north. Practically all of the industries--that is, loading platforms for both truck and railroad shipments, packing plants and canning factories--are located north of the Missouri Pacific Railroad and, in general, immediately contiguous thereto. It seemed reasonable to believe that this strip would continue to maintain and even increase the high traffic density. The conclusion was reached that the additional traffic facility would afford the greatest relief to traffic and be of the most benefit to the entire area served, with a divided highway, if it was built along the north side of the Missouri Pacific tracks and as close thereto as practical and feasible so as to encourage further industrial development along the railroad.

The Valley Chamber of Commerce and county and city officials approached the Highway Commission in 1946 asking for a four-lane highway. The Highway Commission, considering the results of the highway studies by the Department, counter-offered with an expressway proposal on wide right of way.

In 1948, the Highway Commission passed a Minute Order designating an expressway at-grade from Mission to Harlingen.

A committee of civic-minded citizens was organized, with C. H. Britton of McAllen appointed chairman, to promote and carry the expressway proposal to a bond election. The cost of the right of way, based on tax valuations, was estimated at \$1,550,000 by District personnel. The bond election was to authorize the sale of \$1,500,000 in bonds to finance the cost of the right of way, which was the responsibility of Hidalgo County. The bond election was held on May 6, 1950, but failed to carry by only a small margin. Disappointment over the bond election failure resulted in temporary loss of interest in the expressway.

Right in the middle of this expressway proposal, the writer was promoted to District Engineer on March 1, 1948.

In 1948, a project was approved and financed for grading and paving with flexible base and asphalt surface on U.S. Highway 281 from a point seven miles south of Pharr at junction U.S. 281 and U.S. 281 Spur, east to Progreso. The project was completed in 1949. This project connected with the concrete pavement at Progreso, built in 1935 as an NRS job by the Highway Department.

In 1948, another group of farm-to-market roads was designated as follows:

1. F.M. 1016 from Mission south to Madero, then southeast and east to S.H. 336.
2. F.M. 1015 from Edcouch north five miles.
3. F.M. 1017 from San Manuel junction U.S. 281 and S.H. 186, west three miles.
4. F.M. 681, Moore Airfield north to McCook.
(This job later added to the McCook Road District Program.)
5. F.M. 495 from east end of F.M. 495, south on the Val Verde Road to U.S. 83.

Farm-to-market projects were selected by the District Engineer following studies relative to amount of existing traffic, traffic expected after completion, territory served (cultivated citrus or ranch land), farm residences, schools, mail routes, oil fields, industries, connections with other roads or possible future roads and cities or towns served. The projects selected were presented for approval to the County Commissioners, who usually gave their okay based on the merit of the job. Sometimes a commissioner would favor some other road (perhaps some political obligation) but when confronted with the supporting data usually withdrew his objection. The F.M. Program was then submitted to the State Highway Engineer for his review and approval and submitted to the Highway Commission for final approval.

In 1948, there were two floods in the Rio Grande. One in September and one in October. Both floods put water in the floodways and closed county roads.

Successful contractors bidding on farm-to-market roads through the first two programs were South Texas Construction Company, E. B. Darby & Company, and H. B. Zachry Company.

At the time the writer was made District Engineer, the Highway Commission members were John S. Redditt, Fred E. Knetch and Fred A. Wemple. The State Highway Engineer was Dewitt C. Greer.

On the highway approaches to the cities, where traffic was heavy, it was most difficult to maintain the slopes and ditches because of the in-and-out traffic from the pavement to business

establishments. During wet weather, traffic would rut the ditches and block drainage, the ditches would collect trash, and in general the highway entrances were not too attractive.

In the late 1940's the Highway Department adopted a policy of joining the cities in cooperative highway improvement projects. This plan provided that the city adjust the utilities, provide drainage, right of way if required, construct curbs and gutters, and maintain the city-constructed responsibilities, all of which was to be done under the general or direct supervision of the Highway Department. The Highway Department was to strengthen the pavement if necessary, and widen to meet the curb and gutter and maintain. These projects really cleaned up the highway approaches to the cities and were very popular. Most every city in Hidalgo County had one or more of these projects. In Hidalgo County the first curb and gutter street section job was in Elsa on F.M. 88 in July 1948.

Another Highway Department policy was inaugurated in the late 1940's because of the increased traffic and the increased traffic accidents at highway intersections. This policy was to provide traffic signals, flashing signals or fixed-time signals, at intersections with poor accident records. One of the first flashing light signals on the State Highway System in Hidalgo County was on U.S. 83 at Sharyland Road and was installed in July 1948. This program never slowed down and in the 1950's rapidly increased to the present.

The District Headquarters Building was air-conditioned in June 1949.

In July 1949, a Farm-to-Market Program was formed with projects approved for Hidalgo County as follows:

1. F.M. 1423 from S.H. 107, 5.8 miles east of Edinburg, south to F.M. 495.
2. F.M. 1423 from U.S. 83, 0.8 mile west of Donna, south 1.4 miles. This was a "politico" job.
3. F.M. 1425 from U.S. 83, 1.5 miles east of Mercedes, north 4.5 miles.
4. F.M. 2557 from U.S. 83, 0.2 mile east San Juan, south to U.S. 281.
5. F.M. 1427 from U.S. 83, 4.0 miles west of Mission, south through Abrams, then westerly to Penitas.
6. F.M. 676 from S.H. 107, 4.5 miles north of Mission, west 4 miles.
7. F.M. 491 from U.S. 83 in Mercedes, south to U.S. 281.

These projects were moved to construction the same as previous projects and assumed for maintenance upon completion.

The National Congress failed to pass a Highway Act in 1949 so the Highway Commission, in order to keep the Farm-to-Market Program moving, adopted a program of work based on the 75:25 basis and offered it to the counties for consideration. The program provided that the county pay 75 percent of the cost of construction and furnish the right of way on roads acceptable to the Highway Department for addition to the Farm-to-Market System. The State was to pay 25 percent of the cost of construction, perform all the engineering and take the road on the Farm-to-Market System for maintenance when completed.

The people in the area around McCook and those around Edcouch, decided they did not want to wait until the State reached their area with farm roads and were willing to vote themselves into debt to get the roads without further delay.

Representatives from these areas met with the District Engineer to discuss the procedures and the roads they wanted to build. The District was agreeable to the roads requested, the roads were cleared through the Austin Office and estimates of cost were furnished to the area representatives.

Road Districts were organized, bonds voted and money made available to the Highway Department through Hidalgo County. The persons most active in the McCook Road District were Henry Goedrich, A. D. Horn and Lucian Pilarczyk. The roads approved for the McCook Road District were as follows:

1. F.M. 681 from Moore Airfield north to McCook.
2. F.M. 681 continued, from McCook north to near Puerto Rico.
3. F.M. 1017, from end of F.M. 1017, 3 miles west of San Manuel, northwesterly to Puerto Rico and on west to Starr County line.
4. F.M. 2058 from McCook south 1.76 miles.
5. F.M. 490 from McCook west to Starr County line.
6. F.M. 590 from F.M. 681, 2.3 miles east of McCook, east 6.2 miles.

These projects were moved to construction the same as other Farm-to-Market projects and when completed were taken into the State Farm-to-Market System for maintenance. These projects were all completed by 1954.

The persons most active in promoting the Edcouch Road District were Albert Hughes, Mr. Archer, Leroy Haskell and Emmett Cooper. The projects approved for the Edcouch Road District were as follows:

1. F.M. 1015 from five miles north of Edcouch, north to the Willacy County line.

2. F.M. 1422 from junction with F.M. 1015, one mile north and two miles east of Monte Alto, east three miles to junction with F.M. 681, one mile west of Stockholm.

These projects were moved to construction the same as regular Farm-to-Market projects and when completed were taken into the State F.M. System for maintenance. These projects were completed in 1951.

In 1949, there was a small flood in the Rio Grande during the last part of April and water in the floodways closed most of the road crossings for about three days.

The first speed zoning in Hidalgo County was on U.S. 281 in Pharr by Highway Commission Minute No. 28949 in August 1950. With the rural speed limit at 60 mph and the cities with 30 mph, the city limits became speed traps. Quite often the city limit had been extended into the rural area and actually there was no need to reduce speed. The Highway Commission authorized the districts to work with the cities to provide a stepped-down speed approach to the cities that, in some cases, lowered the rural speed limit and raised the city speed limit to the built-up area where speeds should be lowered. The cities were very cooperative in this policy and the speeds were recommended and set only after an engineering and traffic study.

The District Headquarters Building was again enlarged in 1950-51 by adding to the back for the entire length of the building.

The land area occupied by the Hidalgo County Maintenance Forces adjacent to the back side of District Headquarters property was needed for District Headquarters expansion, and in January 1951 a five-acre tract of land was purchased on Polk Avenue in the northeast edge of Pharr. A new steel frame warehouse building was erected. Storage and equipment sheds were built and the Maintenance forces moved in. Shortly after this the District Nursery was also moved to this location.

Beginning in the middle 1950's the Highway Department began forming yearly State and Farm-to-Market Road Betterment Programs to perform heavy maintenance. These projects consisted of some reconstruction but mostly were asphalt seal coats and resurfacing of existing pavements. As the Farm-to-Market System expanded, these summer programs increased because the early farm roads were of lighter construction and heavy-load trucking was beginning to find cutoff or bypass routes as the system began to connect. In fact, in 1954, following the heavy rains accompanying Hurricane Alice, the Highway Department in Hidalgo County load zoned many of the farm roads. Those partly flooded roads were temporarily load zoned to an axle load of 12,000 pounds and a maximum 40,000 pounds gross load to provide some protection to the roads while the ground was water logged.

In December 1951, funds were authorized to revamp the roadside park on U.S. 281 Spur.

In May 1951, a Farm-to-Market Program was approved for Hidalgo County. The projects approved were as follows:

1. F.M. 492 from F.M. 681, 2 miles west of Cantu at S.H. 107, west and south to north end of existing F.M. 492.
2. F.M. 886 from U.S. 83, 1.5 miles east of Starr-Hidalgo County line, south to Los Ebanos.
3. F.M. 493 from F.M. 490 at Hargill, south to S.H. 107 at La Blanca.
4. F.M. 1422 from F.M. 88, east to F.M. 1015.
5. F.M. 491 from S.H. 107 at La Villa, south to U.S. 83 at Mercedes.
6. F.M. 907 from U.S. 83 at Alamo, south to U.S. 281.

In November 1951, a second Farm-to-Market Program was approved for Hidalgo County. The projects were as follows:

1. F.M. 1427, from U.S. 83 south through Penitas, then easterly to end F.M. 1427.
2. F.M. 1924 from S.H. 107, 3 miles north of Mission, west to F.M. 492.
3. F.M. 1925 from U.S. 281, 1.5 miles north of Edinburg, east 5.2 miles.
4. F.M. 1926 from U.S. 83 in McAllen, south to U.S. 281 Spur in Hidalgo.
5. F.M. 491 from U.S. 83 at east city limits of Mercedes, south to junction with F.M. 491. Relocation.
6. F.M. 1425 from S.H. 107 near Cameron County line, south, west, and south to end of existing F.M. 1425 pavement that had been constructed from U.S. 83 north.

In 1952, there was another Farm-to-Market Program for Hidalgo County. The projects approved were as follows:

1. F.M. 495 from end F.M. 495 at Ware Road, west to S.H. 107 in Mission.
2. F.M. 1925 from end of F.M. 1925, east to F.M. 88.
3. F.M. 1015 from U.S. 83, 2 miles east of Weslaco, south to junction with F.M. 88 just north of Arroyo Colorado floodway.
4. F.M. 2061 from S.H. 107, 1.1 miles east of S.H. 336, south to U.S. 83.
5. F.M. 2062 from U.S. 83, 1.4 miles east of F.M. 492, south to Bentsen State Park.
6. F.M. 676 from end F.M. 676 at Sharyland Road (F.M. 494) east to Taylor Road. This was another one of those roads the District did not know about until the order to build was issued.

The projects approved on the preceding three programs were moved to construction in the same manner as the previous projects. As construction was completed, the roads were taken over for maintenance.

Successful contractors bidding on Farm-to-Market projects through the 1949, 1951 and 1952 programs were:

1. South Texas Construction Company
2. E. B. Darby & Company
3. E & M Bohuskey Construction Company
4. Ballenger Construction Company

During the time so much emphasis was being directed toward the Farm-to-Market Program, other important State and State-Federal highway projects were underway. The reader may recall that the story on each State and U.S. highway was given from its beginning through 1968. Reference is made to the projects on pages 7 through 14.

In 1952, land for an additional maintenance section was purchased in Edcouch. New warehouse and storage sheds were constructed and Mr. C. W. Tipton was appointed Maintenance Foreman. Farm-to-Market mileage in Hidalgo County increased to a point where one maintenance section could not handle the work.

In 1953, air-conditioning was installed in the Resident Engineer offices.

Maintenance appropriations are approved each year for the preservation of the highways to their original condition. The funds appropriated will care for the ordinary runs of repairs, policing, signs, pavement markings, etc., but when the roads grow older the funds provided will not keep up with needed repairs. Therefore the Summer Betterment Programs were approved for heavy maintenance such as asphalt seal coats, resurfacing with premix materials and some reconstruction. The programs listed are not entirely for Hidalgo County. The number of miles and costs vary from one-third to one-half, and in some programs even two-thirds of the total for Hidalgo County.

The 1953 Betterment Program was for 85 miles at a cost of \$86,568 and was constructed by Cage Brothers of San Antonio.

The 1954 Betterment Program was for 85 miles at a cost of \$255,696 and was constructed by E. B. Darby & Company of Pharr, and Roy Drugger Company of San Antonio.

In 1954, a Farm-to-Market Road Program was approved for Hidalgo County. Projects approved were as follows:

1. F.M. 1015 from S.H. 107 at Edcouch, south to U.S. 83.
2. F.M. 907 from U.S. 83 at Alamo, north to S.H. 107.

3. F.M. 2220 from U.S. 83 at Ware Road, north to S.H. 107.
4. F.M. 494 from end F.M. 494 at north end of concrete pavement on Sharyland Road, south to U.S. 83.
5. F.M. 1926 from end of F.M. 1926 at junction with U.S. 83 in McAllen, north to F.M. 495.
6. F.M. 2221 from F.M. 492, four miles west of Cantu, west three miles.

Another Farm-to-Market Road Program was approved in 1955 for Hidalgo County. Projects approved were as follows:

1. F.M. 1924 from S.H. 107 extend 1924 east to F.M. 494.
2. F.M. 1925 from Intersection U.S. 281 and F.M. 1925 extend west to F.M. 681.
3. F.M. 1925 from intersection of F.M. 88 and existing F.M. 1925 extend east to F.M. 1015, then from F.M. 1015 east to F.M. 491.
4. Park Road 43 in Bentsen State Park, build park road and maintain it.

The projects on these two programs, 1954 and 1955, were moved to construction in the regular pattern and when completed added to the Farm-to-Market System for maintenance.

The Consolidated Highway Program for 1955-56 provided \$3,000,000 for expressway construction in Hidalgo County but because of lack of right of way, the funds were transferred to other districts.

In 1954-55 the route of U.S. 281 through Edinburg was straightened to run through the new Courthouse Square.

In 1955, the State gasoline tax was raised from 4¢ to 5¢ per gallon. This tax was still the lowest in the nation.

In 1955, the Betterment Program for 58 miles was constructed by E. B. Darby & Company for total cost of \$141,852. In 1956, the Betterment Program for 54 miles was constructed by E. B. Darby & Company for total cost of \$118,445.

In 1958, District 21 received the National Safety Council Award of Honor for working 2,341,599 manhours from June 20, 1956 to April 30, 1958, without a lost-time accident.

In 1956, a Farm-to-Market Program was formed for Hidalgo County. The projects approved were as follows:

1. F.M. 493 from U.S. 83 in east Donna, north to S.H. 107.
2. F.M. 494 from U.S. 83 at Sharyland, south to F.M. 1016.
3. F.M. 1426 from San Juan, north to S.H. 107. This was a paved road and it was taken on the system for maintenance in 1956 and rebuilt in 1961.

In October 1957, a Farm-to-Market Program was formed for Hidalgo County. The projects approved were as follows:

1. F.M. 490 from the end of F.M. 2059 (F.M. 490) 8 miles east of McCook, east to U.S. 281.
2. F.M. 2061 from U.S. 83, 1.3 miles west of U.S. 281 in Pharr, south to U.S. 281 Spur.
3. F.M. 2521, from U.S. 83 at La Joya, south 1.1 miles.
4. F.M. 2128, from U.S. 281 at Schunior St. in Edinburg, east to S.H. 107.

The projects on these two programs, 1956 and 1957, with the exception of Project No. 3 in the 1956 Program, were moved to construction in the normal pattern and when completed were added to the State F.M. System for maintenance.

Successful contractors bidding on Farm-to-Market projects through the 1954, 1955, 1956 and 1957 programs were:

E & M Bohuskey Construction Company.
Ballenger Construction Company.
E. B. Darby & Company.
South Texas Construction Company.
Border Road Construction Company
& Ross Watkins, Inc.
Dodds & Wedegartner, Inc.
Rio Paving Company.

In 1957, a Betterment Program for six miles was constructed by E. B. Darby & Company for total cost of \$219,834. This program was mainly pre-mix surfacing and hot and cold mix.

In 1958, a Betterment Program for 130 miles was constructed by R. B. Bowden, San Marcos, at a cost of \$156,172.

In October and November 1958, there were large floods in the Rio Grande and the Mexican rivers, Alamo and San Juan. These floods, combined with the steady release of some 30,000 second feet of water from Falcon Dam, closed all roads crossing the floodway system for 28 days.

In 1959, a Betterment Program for 84 miles was constructed by Brannan Brothers Construction Company, Victoria, at a total cost of \$76,623.

The 55th Legislature, by House Bill 620, put the State in the right-of-way business. The Highway Commission activated this law on June 1, 1957, by Commission Minute No. 42118, which put the State Highway Department in the right-of-way business for the first time. The State joined the counties in the purchasing of right of way on the 50-50 basis.

District 21 organized a Right of Way Department on August 22, 1957 and appointed S. T. Crosby as Right of Way Engineer.

A Farm-to-Market road, F.M. 2629, was designated in Hidalgo County in 1959, from F.M. 491 three miles south of F.M. 1422 to the Cameron County line.

In 1960, a farm road was designated for Hidalgo County, F.M. 493, beginning in Hargill at the end of F.M. 493 and extending north to S.H. 186.

The two projects on the 1959 and 1960 Programs were moved to construction in the usual pattern and added to the State F.M. System for maintenance when completed.

The Texas Legislature in 1959 passed a law allowing gross loads of 72,000 pounds on State highways effective January 1960. This law, however, delegated authority to the State Highway Commission to load zone highways not strong enough to carry this load without damage. The Highway Commission, by Minute Order No. 46593, load zoned most all Farm-to-Market highways to 58,420 pounds gross load, which was the load limit before the new law was passed.

In 1959, the State authorized mobile radios. The base station for District 21 was located in Pharr with a relay tower south of Mirando City.

Highway Commission Minute No. 45891 in April 1959 authorized the purchase of 26.4 acres of land for a new District Headquarters located on the expressway in the northwest part of Pharr. The land was purchased and, in 1960, \$75,000 was authorized for ground improvement.

A District Office, with Shop and Warehouse Buildings, a Sign Shop, Paint Shop, Carpenter Shop and Radio Shop all in one building, and a District Laboratory Building were authorized with funds available as needed. An architect, Zeb Rike of McAllen, was employed; plans and specifications were prepared and approved. Contract was awarded to W. D. Fergerson & Sons of Brownsville for construction. Work began in March 1962 and the office building was completed in February 1963. District office personnel moved in on Washington's birthday 1963. The warehouse and shop and other supporting buildings were completed in October 1964.

As the county road bonds were paid off by the State as provided by the Legislative Act of 1932, funds began to accumulate, so the Legislature in 1961 provided that these funds be redistributed; counties to get \$7½ million annually and the State to get the rest with the provision that the State could use up to 50 percent of the Bond Assumption Surplus to maintain the F.M. System.

In 1962, the District microfilmed all records, with a few exceptions, from 1932 to 1962.

In 1962, the speed limit was raised from 60 mph to 70 mph.

The Hidalgo County Maintenance Sections (Pharr and Edcouch) worked the whole year of 1964 without a lost-time accident.

Highway Commission Minute No. 52409 in February 1963 retained the old route of U.S. 83 as a business loop.

Highway Commission Minute No. 51635, August 1, 1962, authorized a boat ramp at Llano Grande Lake on F.M. 88. The Highway Department handles the boat registration and any funds in excess of costs of operation are put back into the recreational area in the form of boat ramps.

In 1960, a Betterment Program for 101 miles was constructed by J. H. Strain, Inc., Haskell, at a cost of \$97,230.

The Betterment Program for 1961 was for 152 miles and constructed by Brannan Brothers Construction Company, Victoria, at a cost of \$184,749.

In 1962, two roads were designated as farm-to-market highways for Hidalgo County:

1. F.M. 2220, from junction S.H. 107 & F.M. 2220, extend north to F.M. 1925.
2. F.M. 2812 from F.M. 493, five miles south of Hargill, east to F.M. 88 near Monte Alto.

In 1963, three roads were designated as farm-to-market highways for Hidalgo County:

1. F.M. 2058 from end F.M. 2058, 1.7 miles south of McCook south and east to F.M. 681.
2. F.M. 907 from junction S.H. 107 & F.M. 907, north to F.M. 1925.
3. A road from F.M. 2062 at Bentsen State Park southeast to Madero. (Never constructed because of right-of-way problems.)

In 1964, two farm roads were designated as farm-to-market highways for Hidalgo County. These projects were as follows:

1. F.M. 2894 from F.M. 1924, 2.5 miles west of S.H. 107, north to F.M. 492.
2. F.M. 1926 from end F.M. 1926 in McAllen, north to S.H. 107.

Spur 31, a connection between U.S. 83 Expressway and old U.S. 83 just west of the north floodway at Mercedes, was also designated in 1964.

These projects in the 1962, 1963 and 1964 programs were moved to construction in the usual pattern and added to the State Farm-to-Market System for maintenance when completed.

The Betterment Program for 1962 was for 89 miles constructed by Dodds & Wedegartner Inc., for \$89,935. Another project of 65 miles was constructed by Dodds & Wedegartner for \$171,169. There was still a third project for 28 miles constructed by Heldenfels Brothers of Corpus Christi at a cost of \$328,666.

In 1963, a Betterment Program was approved for 142 miles and was constructed by Brannan Brothers, Victoria, and Young Brothers, Inc., Waco, at a cost of \$219,361.

The Federal Highway Beautification Act for landscaping the highways was passed in 1965. Actually, the Highway Department, from its own beautification programs since 1933, had more shrubs and trees than really needed, but more were planted because Lady Bird Johnson wanted to make Texas a model for all states. This problem did not affect Hidalgo County too much, being off the beaten track through Texas. The Highway Department in Hidalgo County had been carrying on a continuous roadway beautification program, building of roadside parks, planting on curves of four-lane divided highways to shield against headlight glare, and scattering of wildflower seeds. The first project under this Act was planting palm trees along Expressway U.S. 83.

One aspect of this program provided for roadside plantings that would shield from sight the junkyards and objectional signs, etc. In Hidalgo County there were two such projects. One was at U.S. 83 Expressway and F.M. 1926 in McAllen, shielding a junkyard, and the second project, located a little farther west at a big sand pit on the south side of Expressway U.S. 83. Both spots have been cleaned up.

A Betterment Program for 1964 was approved for 64 miles and was constructed by South Texas Construction Company of Corpus Christi at a cost of \$615,857. The program included a considerable mileage of pre-mix asphalt surfacing. A second project approved for 1964 was for 152 miles of slurry seal and was constructed by Schwope Inc., San Antonio, at a cost of \$153,246.

A Betterment Program for 1965 was approved for 231 miles of slurry seal and was constructed by Dodds and Wedegartner, Inc., San Benito, at a cost of \$215,775. A second project for 1965 was approved for 32 miles and was constructed at a cost of \$435,439 by Heldenfels Brothers, Corpus Christi, with considerable pre-mix asphalt surfacing.

In 1965, a Farm-to-Market Program was approved for Hidalgo County. The designated projects were as follows:

1. F.M. 2557 from junction of old U.S. 83 and F.M. 1426, north to U.S. 83 Expressway.

2. F.M. 2061 from junction S.H. 107 and F.M. 2061, north to F.M. 1925.
3. F.M. 2993 from Cantu junction of S.H. 107 and F.M. 681, north to F.M. 1925.

In 1966, a Farm-to-Market Program was formed for Hidalgo County. The projects designated were as follows:

1. F.M. 1921 from F.M. 1015, 1 mile south of Willacy County line, east to Willacy County line at F.M. 1921.
2. F.M. 2812 from U.S. 281, 1.5 miles south of Faysville, east to F.M. 493.
3. F.M. 3072 from F.M. 2061, 2 miles north of Spur U.S. 281 east to F.M. 907.
4. F.M. 3071 from S.H. 107, 1 mile east of F.M. 88, north to F.M. 1925 (between Elsa and Edcouch).
5. F.M. 396, from U.S. 83 Expressway, 1 mile east of F.M. 1016, north to old U.S. 83 at Bryan Road.
6. Spur 433, from U.S. 83 Expressway in Donna, south to old U.S. 83.

The 1968 road designations for a Farm-to-Market Program for Hidalgo County were as follows:

1. F.M. 494 from F.M. 1016, one mile southeast of Madero, southeast and east via Granjeno and north to junction F.M. 1016 and F.M. 494.
2. F.M. 1924 from junction F.M. 494 and F.M. 1924, east to F.M. 1926.
3. F.M. 907 from junction S.H. 107 and F.M. 907, north to F.M. 1925.

These projects in the 1965, 1966 and 1968 programs were moved to construction in the same pattern as all the rest and added to the State F.M. System for maintenance when completed.

The Betterment Program for 1966 was for 57 miles of seal coat and hot-mix asphalt surfacing, mostly on State and U.S. highways and was constructed by Heldenfels Brothers, Corpus Christi, at a cost of \$699,442. Two other projects were approved for a combined mileage of 363. These projects consisted of seal coats and slurry seals and were constructed by Rio Paving Company, Harlingen, and Schwope Brothers, Inc., San Antonio, at a total cost of \$458,661.

In 1966, a third maintenance headquarters in Mission was approved for Hidalgo County. The State purchased 6.5 acres on U.S. 83 Expressway in the southwestern part of Mission. E. E. Krnavek was appointed Maintenance Foreman on May 1, 1966. Mr. Krnavek and crews worked out of the old District Headquarters until new office and warehouse buildings were constructed in 1969.

Successful contractors bidding on farm-to-market projects through 1959, 1960, 1962, 1963, 1964, 1965, 1966 and 1968 programs were:

- Rio Paving Company, Harlingen.
- E & M Bohuskey Construction Company, Harlingen.
- Ballenger Construction Company, San Benito.
- Heldenfels Brothers, Corpus Christi.
- Motheral Contractors, Inc., Weslaco.

The Betterment Program for 1967 was approved for a slurry-seal job on 99 miles. This work was performed by Schwope, Inc., San Antonio, at a cost of \$157,068. A second project was approved for 67 miles of slurry-seal coat. This job was constructed by Heldenfels Brothers of Corpus Christi, at a cost of \$90,623. A third project was approved for 52 miles of asphalt seal coat and some pre-mix resurfacing. This job was also constructed by Heldenfels Brothers at a cost of \$709,054.

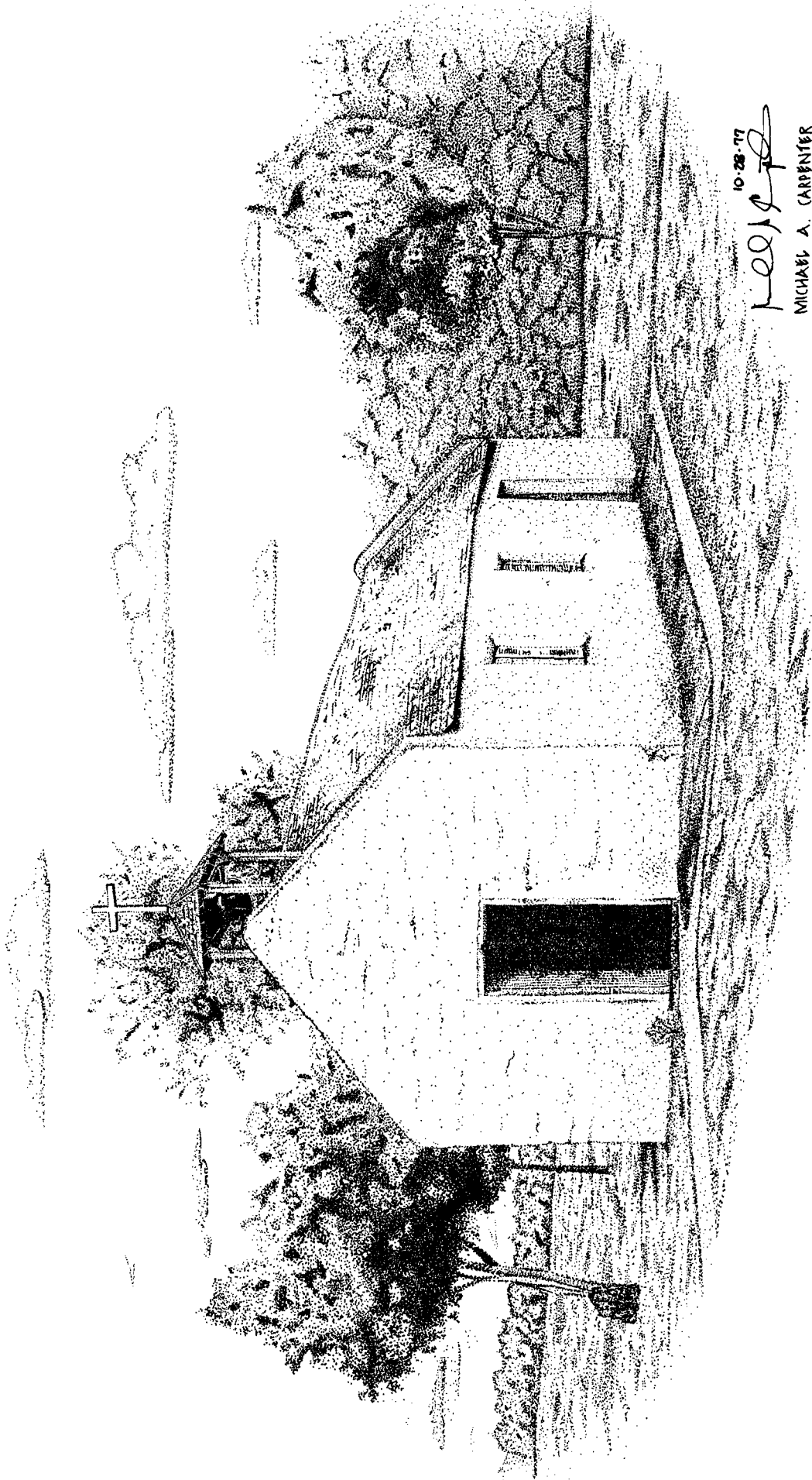
A Betterment Program for 1968 was approved for 199 miles of seal coat and the job was constructed by Schwope, Inc., San Antonio, at a cost of \$331,199.

An Urban Transportation Plan for the metropolitan area of Mission, McAllen, Pharr and San Juan was authorized by Highway Commission Minute No. 58760 in January 1967. Mr. John C. Herrera, District Design Engineer, was in charge of this type of planning for the District.

A key employee during all the years of farm-to-market planning and construction, and early planning for the expressway, was Terry A. Baker, with titles of District Office Engineer, Design Engineer, District Design Engineer, and Administrative Engineer. Mr. Baker kept the planning and programming of projects in order and did all the odd jobs the District Engineer or the Assistant District Engineer did not want to do. He was a very valuable employee.



District Headquarters
Pharr, Texas 1963 -

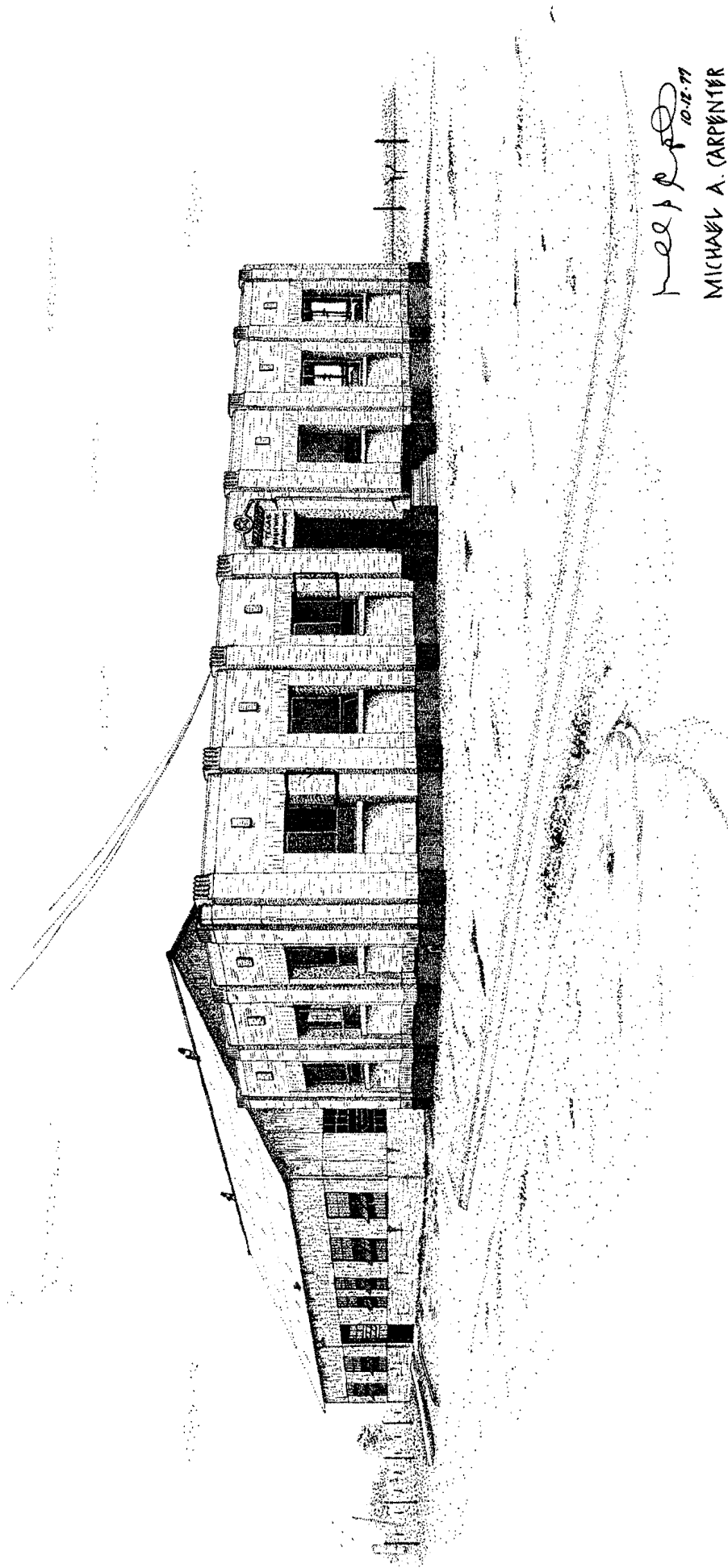


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Michael A. Carpenter

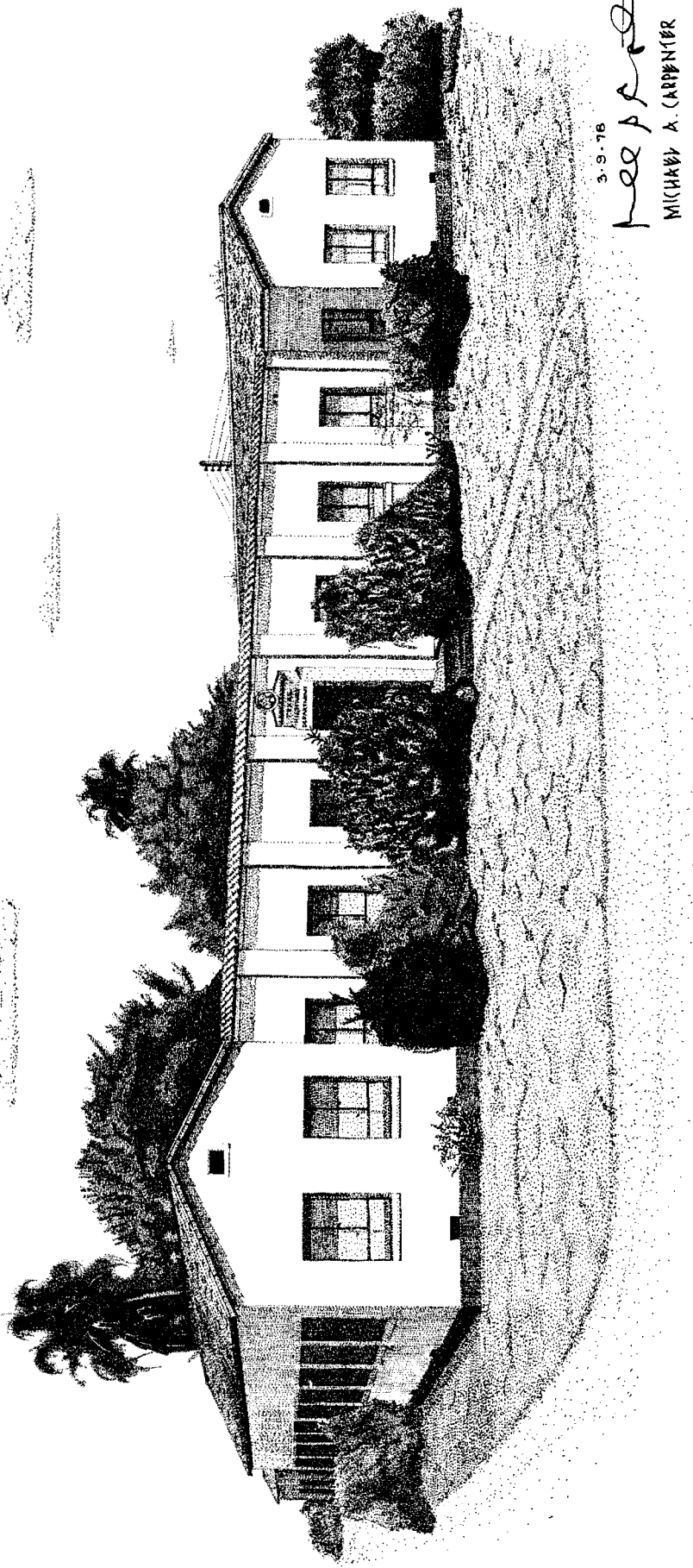
MICHAEL A. CARPENTER

La Lomita Mission



District 21 Headquarters, 1933

Michael A. Carpenter
10-18-33
MICHAEL A. CARPENTER

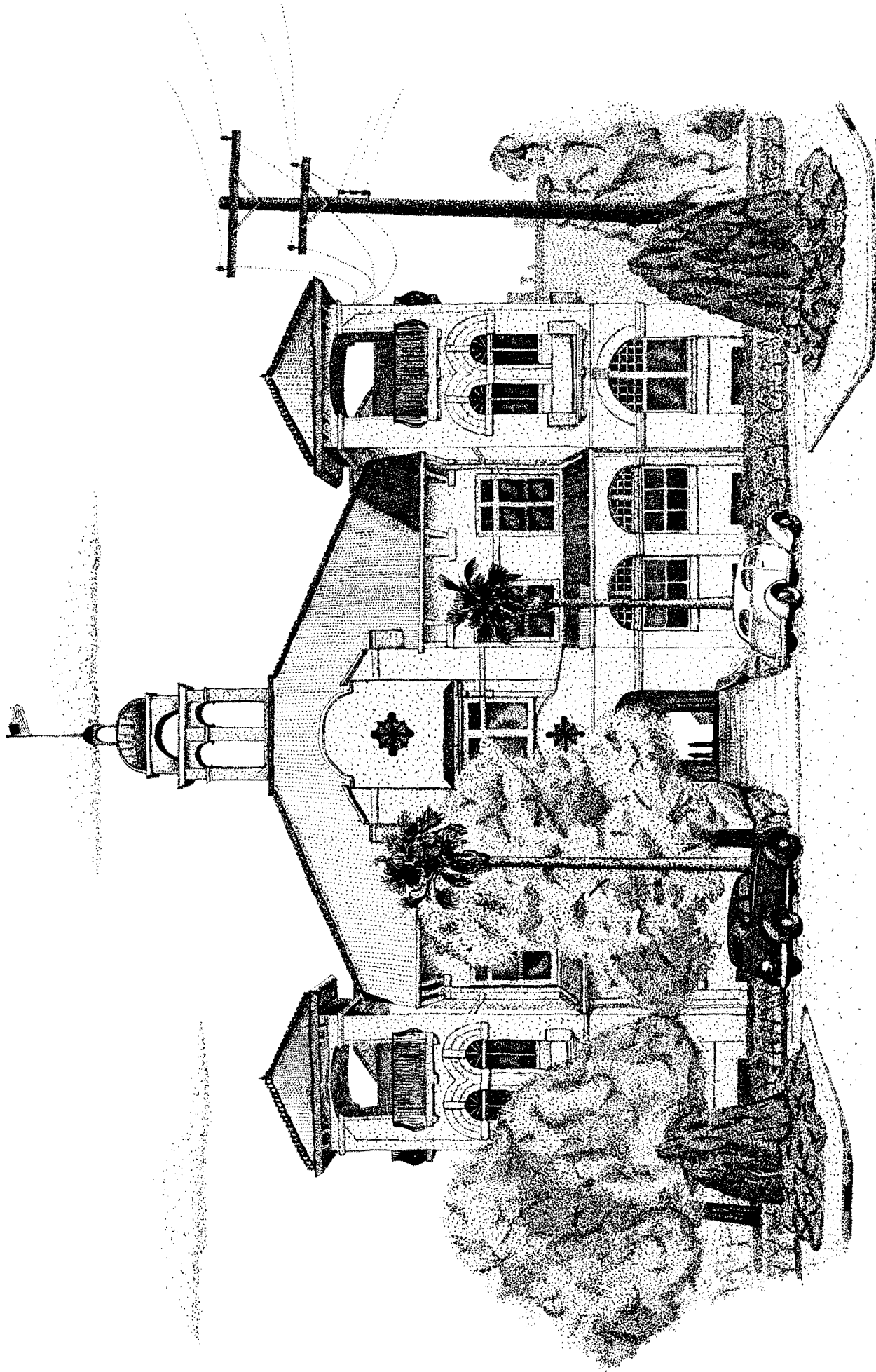


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Michael A. Carpenter

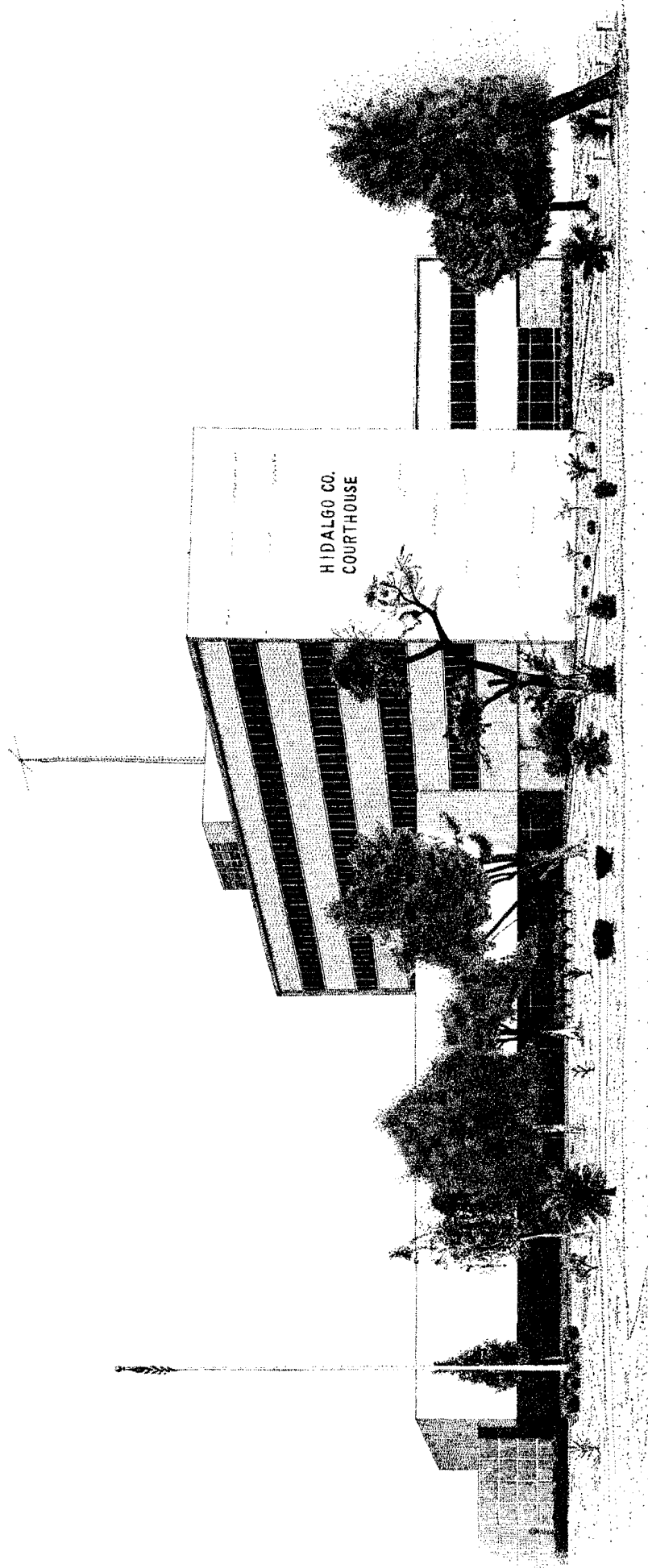
MICHAEL A. CARPENTER

District Office Revised 1951



Hidalgo County Courthouse

Edinburg, Texas 1908 - 1954



4-28-78

Michael A. Carpenter
MICHAEL A. CARPENTER

Hidalgo County Courthouse

Edinburg, Texas 1954 -

THE VALLEY EXPRESSWAY

The first studies for an overall highway transportation plan were made, as stated earlier in this history, in 1936 when W. O. Washington, Civil Engineer at Brownsville and Cameron County Engineer, was employed to prepare a Master Highway Plan for Hidalgo, Cameron and Willacy Counties.

Traffic data was accumulated by the District and the Highway Planning Division in Austin, in the years following the Washington Report, until sufficient information was available to reach a firm decision as to the general location for an expressway-type highway.

The expressway activity in Cameron County in 1951-52, the freeway designation of the ultimate route of U.S. 83, Mission to Brownsville, by Commission Minute No. 35319, December 1, 1953, the highway needs and expressway location studies for the Harlingen-San Benito area (also the Brownsville area), the urging of Highway Commissioner Bob Potts for the counties to take action on the expressway problem and the \$3,375,000 road bond election on May 26, 1956, in Cameron County for right of way, all had its effect on Hidalgo County and life was again breathed into the expressway issue.

In 1954, State Highway Engineer D. C. Greer sent the Expressway Managers from San Antonio, Houston, Fort Worth and Dallas to the Valley to consult with the District Engineer and study the location problem, then submit a report to the State Highway Engineer. It was the unanimous decision that the route of the expressway should be north of U.S. 83 and the Missouri Pacific Railroad tracks. Three of the engineers recommended the location to be as near to the railroad tracks as practical, while the fourth engineer recommended a location a mile or two north of the tracks.

In the District Office, W. A. Apperson, retired Resident Engineer on modified service, made location studies starting with valuation studies, using the county tax records to determine the most economical route through the cities and in the rural areas.

With this information, along with information concerning physical features of the rural land, business districts, residential districts, industries, schools, churches, existing roads, railroads, drainage, irrigation facilities, etc., a map was prepared showing a proposed expressway location with tentative schematics on 300-foot minimum right of way, from west of Mission east to the Cameron County line.

The bond election held in 1949 was without a map establishing a location but county and city officials felt positively that a map with an approximate location shown was necessary to carry a bond election. The State Highway Engineer and the Highway Commission reluctantly agreed to this.

A county-wide meeting was held in Edinburg in January 1955 and the proposal made public.

Public meetings were held in every city along the proposed route of the expressway. There was considerable opposition in all the cities, but particularly in Mission, McAllen and in Weslaco to some extent. The vociferous dominated the meetings while the study thinkers were reluctant to voice contrary opinions and the results showed opposition to the proposal.

Following the Edinburg meeting, Mr. Shelley Collier and Mayor O'Shea of Mercedes called on the District Engineer to suggest the location run through the drain ditch ("Stink Creek," as it was locally named) in the north part of Mercedes. It was pointed out that the construction costs would probably run a half a million dollars more to go through the drain ditch. Mr. Collier countered with the idea that the cost of land and improvements through Mercedes would be quite expensive and since the county and the State were in the right-of-way business together, that right-of-way costs might be put into construction costs. The idea made sense and if the county was agreeable, the District Engineer was highly favorable and would recommend it to the State Highway Engineer. The proposal was agreed to by the State Highway Engineer and during construction of the expressway this eyesore and health hazard was wiped off the map.

Additional studies were made and a new location, moving slightly to the north, was selected.

In April and May 1956, this new proposal was shown to each city along the route and all were more satisfied with the route except Mission and McAllen who still had some opposition. The cities, including Pharr and on to the east, registered very little real objection to the new route.

As early as July 1956, the Expressway Committee in McAllen was advocating a route to the south of McAllen while others in McAllen favored the route north of the Frontier Motel.

In late 1956 and early 1957, there was a strong movement by a select few to locate the whole route along the southern edge of the cities from the McAllen area east to beyond Donna.

In December 1956, a delegation from McAllen called on the District Engineer advocating a route south of McAllen for the expressway. It was explained carefully and earnestly how and why the location north of U.S. 83 was selected.

On February 7, 1957, the McAllen Expressway Committee held a meeting promoting a location south of town.

On February 28, 1957, a delegation from Hidalgo County appeared before the Highway Commission relative to a location south of U.S. 83 for the proposed expressway. Representation from Hidalgo County appeared in opposition to the south route. McAllen representatives stated they were interested only as McAllen was concerned.

In July, Mr. Greer advised that the Highway Commission had approved the northern route, and directed that the District hold public hearings and try to sell the proposed route but to let the public express their opinions, make tape recordings of the meetings, and submit the recordings to the Highway Commission.

Meetings were scheduled and held in all the cities along the proposed expressway route from August 2, 1957, through August 14, 1957. Beginning with Pharr, all the cities to the east were favorable to the new northern location. Mission was about evenly split, some wanting to go to a route south of town. McAllen was well organized for the meeting with an audience laced with strong opposition to the northern route. The vociferous as usual dominated the meeting while the careful and steady supporters of a proposal withheld their support. The reasons are obvious. The tape recordings registered strong opposition to the proposal.

Somewhere about this time Mission joined McAllen in the plan to go south of the two cities.

A meeting was also held in Edinburg, August 15, 1957, for the S.H. 107 cities. Representatives of the cities along the proposed route were invited to attend. The recordings at this meeting were favorable to the proposed location.

About this time, rumors, which were apparently well founded, were floating around that Mercedes and Weslaco would organize a road district, vote expressway right-of-way bonds and join the Cameron County expressway for their outlet to the north. The Highway Department was not approached on this proposition but it did stir things around a little on the west part of the proposed expressway.

On October 13, 1957, the Highway Commission and Mr. Greer came to the Valley to hold their regular executive meeting and to look over the expressway problem, especially in the McAllen and Mission areas. The Commission left without making any commitments.

In December 1957, by Highway Commission Minute No. 43150, the approximate location of the expressway was established: beginning west of Mission on U.S. 83, going south of Mission and McAllen, then crossing U.S. 83 and the Missouri Pacific Railroad tracks between McAllen and Pharr, then curving to the east and proceeding

on to the east along the north edge or part of the cities to the Cameron County line to join with the proposed expressway in Cameron County with a minimum of 300-foot right of way.

The Hidalgo County Commissioners Court, composed of Judge Milton D. Richardson and Commissioners Charles Curtis, Thurman Carter, Charles Green and Herb Pike (who were all strong supporters of the expressway) appointed a Hidalgo County Right of Way Committee to promote and make sure all the facts concerning the right-of-way bond election for the proposed expressway, State and farm-to-market roads were made known to every voter. The Committee members were as follows: Shelley Collier, Mercedes; Ernest Johnson, Edinburg; Horace Etchison and Bill Whalen, McAllen; Warren Suter, Mission; Karl Klinger, Pharr; Don Sherer, San Juan; Leonard Johnson, Alamo; Raymond Mills, Weslaco; Cedric Wood, Donna; Emmett Cooper, LaVilla-Edcouch; Joe Chapa, San Manuel; Frank Smith, Elsa; and Al Ady of Mission.

The Highway Department furnished Hidalgo County with an estimate of the right-of-way costs for the expressway at approximately \$3,800,000; for State and U.S. highways at approximately \$3,116,000; and for the farm-to-market roads approved, plus some rural roads the county added, at approximately \$1,078,000.

Hidalgo County called for a County Rights of Way Bond Election on May 24, 1958, for \$8,000,000. It carried by 3 to 1.

Following approval of the right-of-way bonds, the Highway Department made accurate alignment surveys, prepared new alignment maps showing the location and proposed schematics for the expressway. With the completion of these maps, public hearings were held as required by law. Meetings in Mission, McAllen and Pharr were held in September 1958 and recordings made. On the eastern section the maps were completed in April and public hearings in San Juan, Alamo, Donna, Weslaco and Mercedes were held in April 1959 and recordings made.

Protective right-of-way purchasing on the west end was authorized in April 1959 and on the east end in July 1959 and February 1960.

The Right of Way Department expanded rapidly and two engineers were added to the force: Mr. Sam Cox, Senior Resident Engineer, and Mr. Werner Larson, a Mechanical Engineer. Adding engineers to the organization seemed necessary because of the involvement with a variety of utilities (city, private and public) surface and underground irrigation facilities, both private and Irrigation Districts, drain ditches, railroads and county roads. With the right-of-way maps and field notes completed, appraisals for value of the property to be taken were made and the county began negotiation with the property owners. The first parcel of right of way was purchased April 24, 1959.

The Design Section at District Headquarters, under the supervision of Wade Barnes, District Design Engineer, began plans and specifications for the expressway with the frontage roads to be constructed first, to give a four-lane highway as soon as possible for traffic relief on existing U.S. 83. The projects were moved as fast as plans and specifications could be prepared, right of way cleared and funds for construction provided.

Mr. Barnes supervised the preparation of plans and specifications for the entire length of the expressway. He and his supporting engineers did an outstanding job.

Highway Commission Minute No. 47377, March 1, 1960, designated the expressway as a Controlled Access Highway.

The first project approved for frontage road construction was from F.M. 1016 at Mission east to F.M. 1926 in McAllen. The Highway Engineer in charge of the work for this project was Jean Wagener, Senior Resident Engineer. Construction began on this project in June 1960 and was completed February 1961. The contractor was Border Construction Company and Ross Watkins, Inc., Laredo, Texas.

Construction work on the frontage roads continued as fast as plans and specifications could be prepared, right of way cleared and funds provided. The last section of the frontage roads, from the east levee of the north floodway at Mercedes east to Cameron County line, went to construction in March 1963 and was completed in August 1964. The Highway Engineer in charge of this work was Jean Wagener, Senior Resident Engineer.

The frontage road projects from Inspiration Road west of Mission, east to the Cameron County line are listed in order with the contractor doing the construction:

1. West of Inspiration Road west of Mission, southeast to F.M. 1016 south of Mission.
Contractor: Heldenfels Brothers, Corpus Christi, Texas.
Cost: \$353,000
2. F.M. 1016 east to F.M. 1926 (South Depot Rd.).
Contractor: Border Construction Company & Ross Watkins, Inc., Laredo, Texas.
Cost: \$560,354
3. F.M. 1926 east to U.S. 83.
Contractor: South Texas Construction Company and Southwestern Materials Company.
Sub-contractor: R. & L. Reising Construction Company, Corpus Christi and Edinburg, Texas.
Cost: \$1,195,767

4. From U.S. 83 east to U.S. 281.
Contractor: E. B. Darby Construction Co., Inc., Pharr,
Texas.
Cost: \$210,066
5. U.S. 281 in Pharr east to F.M. 1426 in San Juan.
Contractor: Heldenfels Bros., Corpus Christi, Texas.
Cost: \$1,193,573
6. F.M. 1426 at San Juan east to F.M. 88 at Weslaco.
Contractor: Heldenfels Bros., Corpus Christi, Texas.
Cost: \$920,235

A pumping plant for the disposal of storm waters collected by the storm sewer system east of Alamo was constructed by Dodds & Wedegartner, Inc., San Benito, Texas, at a cost of \$251,467.

7. F.M. 88 at Weslaco east to east levee of north floodway at Mercedes.
Contractor: Heldenfels Bros., Corpus Christi, Texas
Cost: \$1,231,300. This cost includes the low water bridges in the floodway that were built in the main lanes position.
8. From east levee of north floodway east to Cameron County line.
Contractor: Dodds & Wedegartner, Inc., San Benito, Texas.
Cost: \$1,531,838

A key District employee during this time of heavy construction was June T. Martin, District Construction Engineer, who assisted the Resident Engineers with engineering problems when they arose.

The first project approved for the expressway lanes was from west of F.M. 2061, east to just past F.M. 1426 at San Juan. The Highway Engineer in charge of this work was Mr. Duwain Fagala, Senior Resident Engineer.

Construction began on this project in October 1964 and was completed November 1966. The contractor was Heldenfels Brothers, Corpus Christi, Texas.

Construction work on the main expressway lanes proceeded as fast as plans and specifications could be prepared and funds authorized. The last section of the expressway lanes in Hidalgo County was from 0.2 mile west of Mile Two East Road to the Cameron County line; the contract, however, went on to F.M. 506. Highway Engineer in charge of this work was Duwain E. Fagala, Senior Resident Engineer.

Construction work on this section began in March 1968 and was completed in October 1969. The Contractor was South Texas Construction Company and Austin Bridge Company, Corpus Christi and San Antonio, Texas.

The expressway lane projects from Inspiration Road west of Mission to the Cameron County line, for a total length of 32.4 miles, are listed in order with the contractor doing the construction.

1. West of Inspiration Road to 0.1 mile west of Bryan Road.
Contractor: Heldenfels Brothers, Corpus Christi, Texas.
Sub-contractor: Guy Shinn.
Cost: \$2,019,876
2. 0.1 mile west Bryan Road, east to 0.2 mile east of Ware Road.
Contractor: Heldenfels Brothers, Corpus Christi, Texas.
Cost: \$1,594,423
3. East of Ware Road to west of Jackson Road (F.M. 2061).
Contractor: Dodds & Wedegartner, Inc., San Benito, Texas.
Cost: \$1,465,116
4. West of Jackson Road to east of F.M. 1426.
Contractor: Heldenfels Brothers, Corpus Christi, Texas.
Cost: \$2,621,456
5. East of F.M. 1426 to east of Hutto Road.
Contractor: Dodds & Wedegartner, Inc., San Benito, Texas.
Cost: \$1,810,759
6. East of Hutto Road to west of F.M. 88.
Contractor: South Texas Construction Company and Austin Bridge Company, Corpus Christi and San Antonio, Texas.
Cost: \$1,520,806
7. West of F.M. 88 at Weslaco to west levee of the north floodway at Mercedes.
Contractor: Dodds & Wedegartner, Inc., San Benito, Texas.
Cost: \$2,593,358.
8. East levee of North Floodway to 0.2 mile west of Mile 1 East Road.
Contractor: Dodds & Wedegartner, Inc., San Benito, Texas.
Cost: \$793,989
9. From 0.2 mile west of Mile 1 East Road to Cameron County line. (Contract, however, went on to F.M. 506 in Cameron County.)
Contractor: South Texas Construction Company and Austin Bridge Company, Corpus Christi and San Antonio, Texas.
Cost: Hidalgo County, \$1,168,882; Cameron County, \$2,012,584

The total cost of the frontage roads on the expressway was \$7,447,600. The total cost of the main lanes of the expressway was \$15,588,665, for a grand total of \$23,036,265. Total mileage of 32.4 at \$710,995 per mile.

Contracts for signing the expressway were let in 1968 to Loyd Electric Company, Inc., San Antonio, Texas, from west of Mission to Ware Road, including the signing of U.S. 83 and 77 Expressway and U.S. 77 Business Route intersection south of San Benito, in the amount of \$93,790, and to the Aztec Manufacturing Company, Fort Worth, Texas, from Ware Road east to F.M. 88 at Weslaco in the amount of \$75,650.

The construction of the expressway in Hidalgo County was a major accomplishment and the engineers in charge, Duwain Fagala, and Jean Wagener, both Senior Resident Engineers, with their assistants and technicians are to be complimented for a job well done.

An indispensable employee throughout the 36 years covered by this history was S. R. Busby. Mr. Busby advanced from Office Engineer in 1933 to Assistant District Engineer in 1948 to 1968. Through the maze of planning, location, programming, estimating, preparation of plans and specifications and construction, he was able to stay oriented toward the successful operation and completion of the District's mission of providing an adequate system of State Highways for District 21. He was a most valuable engineer.

EDINBURG U.S. 281 RELOCATION

Studies and planning for an expressway-type facility on U.S. Highway 281 around Edinburg started in the District Office about the same time studies started for the second bond election for U.S. 83 and U.S. 281. These studies, of course, were based on traffic density, population and land culture. Using U.S. 281 as a base line, the area to the west for 12 miles outweighed a similar area to the east by approximately 2 to 1. The studies indicated the relocation of U.S. 281 to either the west or east would adequately serve Edinburg. However, after passing Edinburg, the west route was definitely the most favorable. There was open area to the west just beyond Pan American University, an open area along the Jackson Road area to a junction with the proposed location of Expressway U.S. 83, where the area was wide open for a directional high-speed interchange. The feeling in Edinburg was about evenly split on the east or west route at that time. However, the east route was placed on the bond election map by the Expressway Committee and did not reflect the District Office ideas. The bond election passed, so the location area of U.S. 281 was tied down, unless public hearing dictated otherwise.

In May 1964, Edinburg was pushing for the expressway location. At that time an Urban Renewal Project in East Edinburg was underway and it would be advantageous to have the location known. The District Engineer wanted to delay making a location because U.S. 83 Expressway work was using all the funds available to the District. If the location was made, the land prices adjacent to the route would increase immediately and by the time the District could get to it, the right-of-way costs would be extremely high.

An Edinburg delegation went before the Highway Commission on July 30, 1964, requesting a location for U.S. 281.

The Highway Commission by Minute Order No. 55201, October 30, 1964, authorized engineering studies for an expressway around the Edinburg area; limits of the study to be from approximately two miles north of Edinburg and passing Edinburg on the east edge, then southwesterly to U.S. Highway 281 at a point one mile south of Edinburg. This was the location band or area shown on the map for the bond election.

Maps were prepared showing a proposed location, with schematics, based on the route shown on the bond election map. The District Engineer felt certain the route would be objected to, but it was decided a location following roughly the area shown on the bond election map must be shown and, if objected to, would free the Highway Department to select some other route.

A public hearing was held in Edinburg January 28, 1965, on the proposed route. This route was objected to by owners along the southeast area of the route; also by housing project representatives and public school representatives in the northeast area of Edinburg. Taped records show opposition to the location. Meetings were held with the Housing Authority and public school representatives and differences were worked out for the most part. The land owners on the south leg were unyielding.

By June 1965, no action had been taken by the Highway Commission on the problem. Discussions with Mr. Greer, Design Division, and Highway Planning Division (all of whom favored west of Edinburg route) resulted in the idea of offering two four-lane roads; one east of Edinburg and one west. This would divide the eastbound and the westbound traffic for U.S. 83 Expressway at a point north of Edinburg.

The Highway Commission agreed with the idea, and by Minute Order No. 56456, July 30, 1965, offered Edinburg such a solution. The City Commission of Edinburg rejected the offer.

In April 1966, McAllen joined Edinburg and a resolution was submitted to the Highway Commission asking for a U.S. 281 location east of Edinburg then back to U.S. 281, farther south than the first location, and following U.S. 281 south to Pharr at a junction with U.S. 83 Expressway. Mr. Greer asked for sketches and estimates of cost for the requested route. These were furnished and on May 5, 1966, by Minute Order No. 57478, the route of U.S. 281 was established to the east of Edinburg along 24-25 streets, then south and southwesterly to U.S. 281 approximately three miles south of Edinburg, then following U.S. 281 to Pharr to a junction with U.S. 83 Expressway. Alignment surveys were made, maps showing approximate location (with schematics) were prepared and a public hearing held September 7, 1966. The location of U.S. 281 bypass was approved.

Detailed surveys, land maps and field notes for right of way to be purchased were prepared. Appraisal of property began and right-of-way purchase followed. At the time of the writer's retirement no funds had been authorized for construction.

HURRICANE BEULAH

Gale winds with heavy rains preceding Beulah reached the Pharr area about 3:00 a.m. on Wednesday, September 20, 1967, and continued to blow all day, but not quite to hurricane force in the Pharr-McAllen area. At about 3:00 p.m., gusts may have reached hurricane force of 74 miles per hour. Accompanied by heavy rains the hurricane passed just east of Brownsville, San Benito-Harlingen, over Raymondville, up U.S. Highway 77 to Sarita then turned west to the Falfurrias area, where it made a complete circle, then on to Hebbronville, turned southwest to Randado and on into Mexico just south of Zapata. It had lost most of its force by the time it reached the Rio Grande, but continued southeasterly across Mexico and entered the Gulf about 200 miles south of Brownsville. By that time Beulah was just a squall but still with a discernible "eye" and if wind circulation had been right, could have regenerated and gone right back at Brownsville again.

The damage in Hidalgo County from winds was not too great, but the flood damage following was extremely costly. Heavy rains continued through Thursday, and Valley roads were mostly flooded but still passable except in low areas. Roads into the Valley were open except U.S. 83 in Starr County, which closed and opened, closed and opened again as floodwaters proceeded down the Rio Grande. IB&WC gauges on the river measured 123,000 second feet of water just below Rio Grande City.

On Friday, September 22, the rain continued on and off, and impounding of water became serious. Homes and businesses in low areas were flooded. U.S. Highway 281 was closed in the south part of Brooks County, but traffic was routed over F.M. 1017 to Hebbronville and north. U.S. Highway 77 was kept open but was becoming difficult. U.S. Highway 83 up the river was open. The expressway, except frontage roads, remained open.

Water began entering the floodway system late Friday and closed all north and south roads as the water proceeded down the system. When water enters the floodway, all drainage entrances are closed. Local drainage is then blocked and water impounds outside the levees and in all ditches leading to the floodway. Natural drainage is to the northeast on a slope of about one foot to the mile. With all the manmade obstacles--roads, railroads, irrigation canals, etc.--drainage is practically nonexistent. The only high-water crossings on the floodways were at McAllen, Weslaco and Mercedes in Hidalgo County, and at Harlingen, Sebastian and Rio Hondo in Cameron County.

Saturday, September 23rd, the water in the Mission floodway topped the levees on high ground just west of McAllen and began filling low areas from F.M. 494 east to S.H. 336 along the expressway and flooding the McAllen Airfield. U.S. 281 was still flooded at San Manuel and passable only with high-wheeled trucks. U.S. 77 at Sarita was open to only high-wheeled trucks. Water was 24 inches deep.

Supervision of the Highway Department's operation through the hurricane and flood stage, when personnel and equipment were scattered over a three-county area, could be handled efficiently and effectively (with the help of radios) by one man only. Mr. Sam Cox, District Maintenance Engineer, did the job, supported by District supervisory personnel. Because of the good job he did, he was awarded the Dewitt C. Greer Award for Outstanding Service in 1968.

Supervisory personnel S. R. Busby (Assistant Engineer), Duwain Fagala (Senior Resident Engineer), Wade Barnes (District Design Engineer) and Jim Todd (Senior Resident Engineer) supported Mr. Cox in planning protective operations with the IB&WC who had only a small maintenance force and were unable to handle emergency operations.

The IB&WC maintains their levees with a three-foot freeboard and allows the Highway Department to cross the floodway levees at a grade three feet below levee top. With the amount of water on hand and in sight upstream, it was evident that all road crossings must be sandbagged. Maintenance crews began this operation and worked along with the flood as it moved downstream.

Sunday, September 24th. The water continued to pour into McAllen and impounded water became deeper. The low water crossing in the floodway at Mercedes was closed but traffic was routed over U.S. 83 Business Route on the high bridge.

Monday, September 25th. Water still pouring into McAllen. Highway Department maintenance crews are helping IB&WC crews strengthen and raise levees in critical spots. The Arroyo Colorado floodway at Harlingen was bank full and the crest of the flood not in sight at McAllen.

Tuesday, September 26th. Water still pouring into McAllen. Impounded water getting deeper. Highway maintenance crews working with IB&WC on levee strengthening and raising in critical areas. Water overflowing Arroyo Colorado banks in Harlingen and flooding the area west of Harlingen, and along U.S. Highway 83 Business Route. Fortunately, a large irrigation canal skirts the south and west sides of Harlingen and streets could be blocked at the canal if necessary.

Wednesday, September 27th. Water still pouring into McAllen and getting deeper. Flood water covered the floor in the Fairway Motel lobby but did not quite reach the Holiday Inn. Harlingen sandbagging all street crossings with the large canal to block water out of downtown business district. Floodwaters topped the frontage road bridges at the Arroyo Colorado. Looked like the crest of the flood was reached at McAllen.

Thursday, September 28th. Highway Department maintenance crews under the supervision of Sam Cox, District Maintenance Engineer, continued working with the IB&WC crews; however, Wednesday evening IB&WC authorities asked State forces to pull off because the levee between F.M. 506 and F.M. 800 south of the La Feria area could not be saved. Mr. Cox and the Highway Department forces refused to believe that. Along with local residents, they continued to work into the night and saved the levee, which prevented the flooding of the four- to five-mile area south to the river and the flooding of U.S. Highway 281.

During the battle on the floodway levees there was not much to be done on the flooded highways except help traffic. Highways were barricaded where water was too deep to travel and traffic was directed to roads that were open. Pavement edges were marked with laths and the culverts and bridges checked for erosion and washouts.

When the floodwaters in the Arroyo Colorado receded, extensive damage to the north abutments of the main-lane expressway bridges was revealed. Later the bridges were lengthened one span with embankment and rip-rap replaced at a cost of \$649,375.

Damage to farm-to-market, State, and U.S. highways, including the cost of the Arroyo Colorado damage, amounted to \$2,234,212.03.

Mrs. Minta Riddle, Secretary to the District Engineer, summed up the operations of the Highway Department personnel during Beulah and the flood exceptionally well in her editorial in the "El Paisano" (District 21 newsletter). The editorial follows:

"She came in easy and then hit! I need not tell you how. Each of you had your own personal worries with her, but the employees of District 21 left their homes, their personal problems with this contrary lady, and went to aid the traveling public; to keep the roads open so vehicles that bring in food and supplies and everything that makes your and my existence comfortable could continue to move.

"Around the clock they worked, keeping in touch with every part of our District. From Laredo to Brownsville to Raymondville and on up to Freer to find out which roads were passable, which ones to close, and which ones to watch. The telephone was manned or womanned, whichever was handy, 24 hours a day. Mobile radios went to work. Employees put up barricades, helped stranded motorists and calmed many fears of people calling in who needed or wanted to leave the area or wanted to get in. Communications with every part of the District that phone lines could reach were put into operation, and on-the-ground inspection by personnel saw which routes were beginning to open.

"These Department people slept at the office and ate when they could. Truck drivers had to be ordered to go home and rest. These people went to work with only one idea ... there was a job to do. Supervisors, crews, engineering and office personnel came out in the rain, the destruction, and moved in to help people who perhaps never knew they were being helped.

"Putting it mildly, the traveling public was inconvenienced by the racy Beulah, but one call to the Highway Department gave factual information about how to get to a certain location or whether it could be done.

"The Highway Department's job is to construct and maintain the highways, and during the crisis they maintained the roads with an A+ excellent. Suddenly, the highways, which all of us travel without a thought, became lifelines, routes to our loved ones, byways for supplies to come to us.

"Anyone employed by District 21 who experienced Beulah and her aftermath and saw the workings of the Highway Department at first hand, will never again be able to think casually about his job. As they put in their day's time, they know they are working for an organization which can be counted on when the chips are down. They know they are working for an organization which serves the traveling public.

"During Beulah, it did just that."

The Highway Department was reimbursed by the IB&WC for helping on the floodway levees in the amount of \$6,970.32, but complained because a firm agreement for such work was not prepared in advance. Can you imagine that? The IB&WC asked for help, the Highway Department responded.

RECYCLING ASPHALT PAVEMENT MATERIAL

At the time of this writing (1977) everyone is recycle conscious and everyone is striving to be first in the field.

The Texas Highway Department claims first in the nation in recycling asphalt pavements with their job on U.S. 83 in Hidalgo County.

The Texas Highway Department may be first all right, but it was 40 years ago on U.S. 281 in Hidalgo County that the first asphalt pavement was reclaimed.

U.S. Highway 281 from the end of the concrete pavement 12 miles south of Falfurrias to San Manuel, a distance of 33 miles, was constructed of flexible base (poor-quality caliche) with rock asphalt surfacing. These 33 miles are through the sand beds and the pavement was in a constant state of failure. The pavement from its construction, in the early 20's, to the mid 30's was maintained mostly by adding asphalt patches to the failed areas. Over this period of years the pavement, in places, was 8 to 10 inches thick.

When District 21 was organized, the maintenance was changed to remove the asphalt surface material, then dig out the rotten base material and enough subgrade to allow replacement with about eight inches of good base material. After traffic beat the patch around for a few days, an asphalt patch of pre-mix material was placed over it.

The asphalt surface material removed in the repair of the failed areas was salvaged and placed in stockpiles along the highway where the ranches gave permission to stockpile off the right of way. It was not known just exactly what to do with the material but it seemed too good to waste and it was too rich in asphalt content to crush in a conventional crusher.

J. W. Puckett, District Engineer, during an inspection trip to the Webb County area, noticed an old "chain beater" lying near a railroad switch track in Laredo. On inquiry, he learned the machine belonged to an asphalt contractor in San Antonio. Mr. Puckett contacted this contractor with an offer to buy the beater but the contractor gave it to him. The machine had been used to beat up and pulverize limestone rock asphalt fines that had balled or set up. This gave Mr. Puckett the idea for crushing the salvaged asphalt surface material stockpiled in Hidalgo and Brooks Counties.

The beater was taken to the District Shop for cleaning, minor repairs, greasing and new chains. The wooden shell or box of the machine showed signs of wear but it was decided to try it out before investing any money in overhauling. The beater was made up

of a circular metal grate, shaped to about half a circle, about 4 feet long and about 20 inches wide. This grate was secured in a wooden box or shell about 4 feet square and 20 inches wide to fit the grate. The grate was placed in the box with about one foot of its length near the bottom and the remaining three feet curving up along one side. An axle was placed through the box and placed so that 14-inch chains suspended from the axle would clear the grate about one inch when revolving. An opening was provided at the top for feeding the material to be crushed and an opening was left in the bottom for discharge.

An old Fordson Tractor with power takeoff was available for power.

The cost of labor was low at this time, so the beater was to be fed by hand and the crushed material also handled by hand.

The tractor and beater were taken to one of the stockpiles and hooked up. A plank ramp with a platform was constructed so that salvaged material could be fed into the beater with wheelbarrows. The machine was started and operations began. It worked.

The salvaged surface material had considerable caliche base stuck to it when stockpiled but had dried out during storage and with hand handling, lost most of it by the time it got to the beater. The amount remaining was not considered too serious.

Since the cost of rock asphalt material was rather high and labor was cheap, this reclaiming operation continued until the stockpiles were used up.

Work orders were made for this operation and the material was placed in stock at the cost of crushing.

This salvaged material was mixed in asphalt mixers with a small amount of flux oil or cut-back asphalt added and used for surface repairs.

No records seem to be available at this time for costs on the salvaged material. Pictures seem to be nonexistent. The operation at that time did not seem to be anything unusual and nothing much was said about it. It was just another job.

A side benefit of the expressway construction of major importance to Hidalgo County and the cities of McAllen, Pharr, San Juan and Alamo was the drainage ditches made during the construction work. These drain ditches served as borrow sources for dirt used in the construction of the embankments for the overpass structures.

The right of way for the ditches was furnished by Hidalgo County. These ditches gave the cities a place to get rid of their drainage water that before only stood and seeped off slowly or evaporated. The natural slope of the ground from the south edge or part of the cities mentioned is toward the north and east. To move water in

a northerly direction only adds to the drainage problem because there is no place to dispose of it. To construct a storm sewer system to provide drainage of the northern part of the cities to the south requires a cut through the high ground on the south of some 22 feet. An open ditch is objectional (based on many points) and the cost of an underground system of adequate size is practically prohibitive for the small cities.

This was a job profitable to everyone.

THE TEXAS HIGHWAY DEPARTMENT

The Texas Highway Commission, appointed by the Governor, establishes and sets the policies of the Department, authorizes and approves the expenditure of highway funds and employs the State Highway Engineer, who acts as Executive Officer for the Commission.

The District Engineer is appointed by the State Highway Engineer and is charged with the responsibility of carrying out the policies of the Highway Commission, forming programs of work and moving them through construction to provide an adequate highway system for the District, and properly maintaining the system of roads.

The District Headquarters at Pharr is the center of control and supervision of all operations for the 10 counties of the District. The basic programming and planning are done at District Headquarters, while the surveys, plans and specifications, and construction are supervised by the Resident Engineers, and when construction is completed the District Maintenance Division takes the road over for supervision and maintenance.

Within the District Headquarters organization are several divisions, such as the Accounting Department, which prepares accounting records of all construction and maintenance operations, prepares salary payrolls for all personnel, prepares payrolls for payment of all material and supplies purchased for the District, maintains records of all supplies in stock and prepares records of all equipment and its operation.

The District Warehouse is the purchasing and supply department for the District operations. The warehouse stock is made up of hundreds of items regularly used by the District.

The District Sign and Carpenter Shop makes and paints all the highway signs used in the District. It also maintains all office, warehouse and shop buildings in the District.

The District Right of Way Section handles the acquisition of all right of way needed for highway purposes. The counties join the Highway Department on a 50-50 basis in purchasing right of way on all State and U.S. highways and the counties furnish all right of way for farm-to-market roads.

The District Shop is responsible for the maintenance and repair of all District equipment, some 750 major units.

The Permit Office handles all overload and oversize permits for trucks on the highways. It also handles permits for utility installations on the right of way in keeping with Commission Policy in addition to issuing entrance permits for residences and business operations as allowed by Commission Policy.

The Radio and Traffic Signal Shop installs and maintains all radios and traffic signals in the District.

The District Laboratory tests road construction materials, performs experimental work with road materials and correlates residency laboratory tests.

The Traffic Engineering Section is responsible for planning, design and operation of traffic control systems, safety lighting, railroad protective devices and inspection of railroad grade crossings.

The Design Section of District Headquarters reviews all construction plans and specifications, cost estimates and supporting papers for submitting to the State Highway Engineer. It also prepares specialized and technical reports and supervises the preparation of Metropolitan Transportation Plans.

The information for the discussion of activities in the State by various clubs, organizations and associations formed to promote better roads, the action in the Legislature relative to and leading to the creation of the State Highway Department, and the actions by the Legislature since the creation of the Department in providing laws to raise the necessary funds to construct and maintain a system of public highways was taken from the booklets prepared by the Department titled "History of the Texas Highway Department" and with the permission of the Texas Highway Department.

HIGHWAY DISTRICT 21
HEADQUARTERS SUPERVISORY PERSONNEL 1968
AND
HIDALGO COUNTY
SUPERVISORY PERSONNEL 1968

J. F. Snyder	District Engineer
S. R. Busby	Asst. District Engineer
Terry A. Baker	District Administrative Engineer
S. G. Cox, Jr.	District Maintenance Engineer
Wade D. Barnes	Supervising Design Engineer
John C. Herrera	District Design Engineer
S. T. Crosby	District Right of Way Engineer
Ross L. Fitzpatrick	Senior Traffic Engineer
Sim M. Giles	Laboratory Technician
Van W. Wheat	Chief Accountant
James E. Greenwalt	District Shop Foreman
V. F. Scribner	Communication Superintendent
George W. Goeser	Sign Shop Foreman
James E. Carlson	Accountant, Warehouse
Clyde Salter	Maintenance Construction Supervisor
John B. Coston	Landscape Architect
Duwain E. Fagala	Supervising Resident Engineer, Hidalgo County
Jean S. Wagener	Supervising Resident Engineer, Hidalgo County
A. C. Wood	Maintenance Construction Foreman
C. W. Tipton	Maintenance Construction Foreman
E. E. Krnavek	Maintenance Construction Foreman

TEXAS HIGHWAY DEPARTMENT
ADMINISTRATIVE PERSONNEL

J. H. Kultgen	Waco
Herbert Petry	Carrizo Springs
Hal Woodward	Coleman (retiring)
Garrett Morris	Coleman (taking office)
J. C. Dingwall	State Highway Engineer
D. C. Greer	Retired in 1967

SUMMARY

Highway construction costs in Hidalgo County from 1917 to August 31, 1968, was \$55,238,191, with \$53,252,550 expended since District 21 was organized.

Highway maintenance costs in Hidalgo County from 1925 to August 31, 1968, was \$10,053,866, with \$9,746,669 expended since District 21 was organized.

A grand total of \$67,584,895 Highway Department funds have been expended in Hidalgo County since its organization in 1917.

When the writer retired in 1968, District 21 had \$25,619,924.28 under contract.

In September 1968, District 21 had 1,368 miles of farm-to-market highways and with State and U.S. highways, a total of 2,481 miles were under maintenance. Of this total mileage, 629 miles were in Hidalgo County of which 406 miles were farm-to-market highways.

The writer is very proud to have been a part of this tremendous operation, and when considering the many miles of highways constructed, the many miles of highways reconstructed, and the continuous never-ending maintenance of these highways, it gives one pause to stop and think. "It surely do."