

Transportation NEWS

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HAPPY ANNIVERSARY, TxDOT

The first meeting of the Texas Highway Commission took place on June 4, 1917, in the corner of the House Chamber in the unairconditioned Texas Capitol. The first order of business was a motion from Commissioner H.C. Odle that George A. Duren be appointed state highway engineer. The next motion was for adjournment. After all, with no highways, there really wasn't much business.

A few weeks later, the commission designated a highway system comprising 8,865 miles of "improved roadways." With that, employees of the fledgling Texas Highway Department rolled up their sleeves and got to work.

It's hard to imagine what Odle, Duren and the rest of those first employees would think if they could see the department now. Eight decades later, the state-maintained system has grown to encompass 76,843 miles. More than 14.6 million registered vehicles travel more than 122.8 billion miles on Texas highways every year. As of June 1, \$4.5 billion in construction was under contract.

Intelligent transportation systems

using cutting-edge technology facilitate driving in the state's congested urban areas. More than 4,000 Texans volunteer to pick up litter from highway rights of way. Crumb rubber, glass beads — even toilets — are recycled and used in construction projects. Travelers visit travel information centers 1.8 million times a year. More than 14,000 employees and countless retirees compose the TxDOT team.

As the 45th state to create a highway department, Texas may have been a late bloomer. But bloom is exactly what the department has done. In the past 80 years, Texans have gone from being "stuck in the mud" to boasting the most advanced highway system in the world. Employees are recognized worldwide for their innovation, ingenuity and achievements.

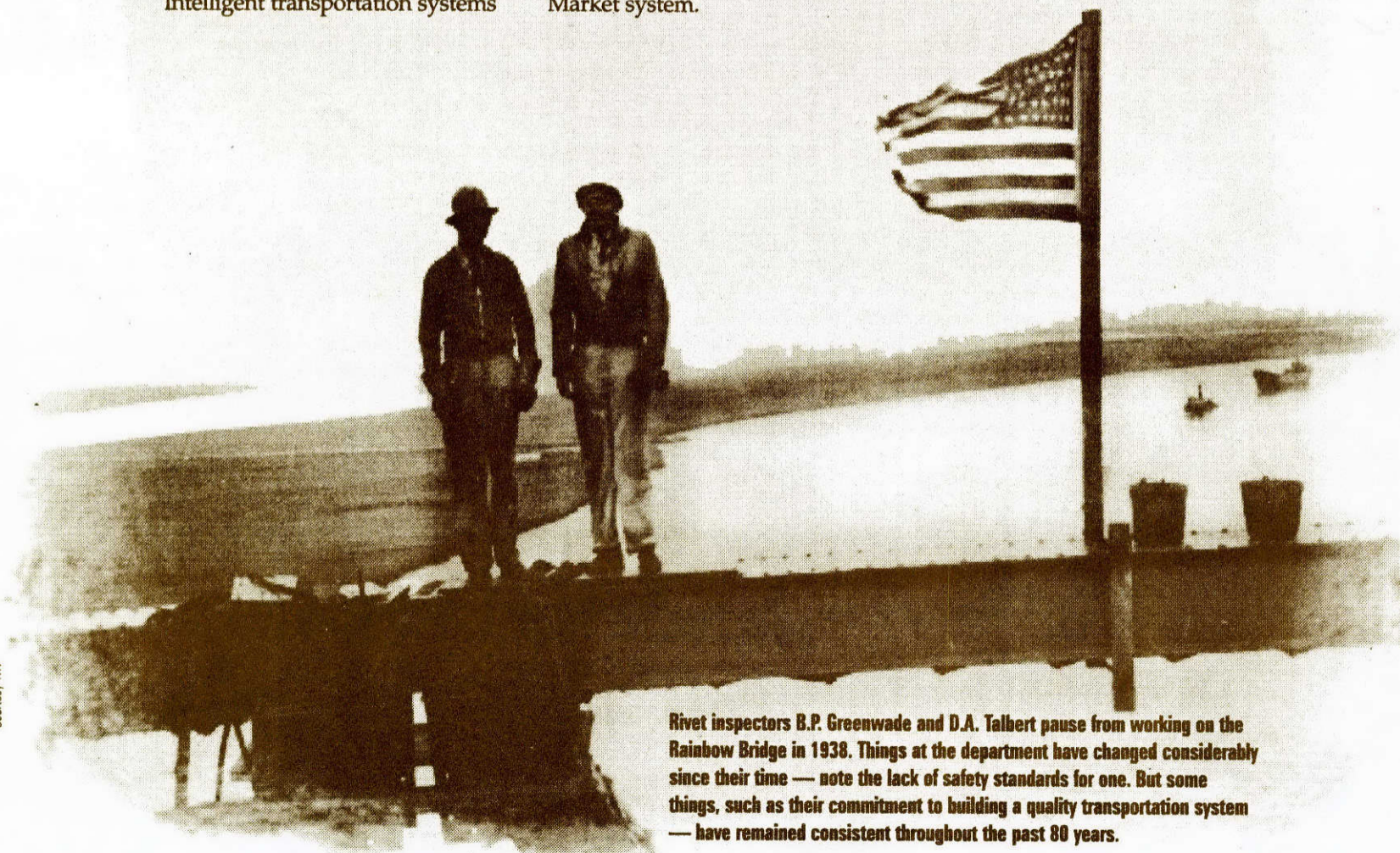
Oh, there've been moments we'd like to forget. Our fellow Texans were quick to tell us when they didn't want their license plates to sport the motto "The Friendship State." They were equally boisterous when the Urban Roads program threatened to do away with miles of their beloved Farm-to-Market system.

But if the first employees of the Texas Highway Department were among us today, they'd be proud of what those who followed in their footsteps have accomplished. We've taken their foundation of dedication, honesty and integrity and built on it. The result is a safe, effective, efficient transportation system used by millions every day.

But it's not the recognition and awards that matter most to employees. It's the transportation network we've built and maintained that helps us, our fellow Texans and visitors to our state travel safely, comfortably and affordably through miles and miles of Texas. It's the tradition of the department that's been passed down from generation to generation for eight decades. And it's the contributions we and our predecessors have made to the lives of all who live in and all who visit the Lone Star State.

So, as we celebrate the department's 80-year history, take a moment to reflect on what it means to be a part of the legacy that is the Texas Department of Transportation. Happy Anniversary!★

Courtesy TRV



Rivet inspectors B.P. Greenwade and D.A. Talbert pause from working on the Rainbow Bridge in 1938. Things at the department have changed considerably since their time — note the lack of safety standards for one. But some things, such as their commitment to building a quality transportation system — have remained consistent throughout the past 80 years.



David Laney

New tools help TxDOT meet state's growing needs

In a memo dated Oct. 7, 1960, Dewitt C. Greer told employees: "Over a period of more than thirty years the Texas Highway Department has merited the confidence of the people of Texas, due in great part to the basic Departmental principles of honesty, integrity and efficiency."

Greer's statement rings as true today as it did then. Honesty, integrity and efficiency are the pillars on which the Texas Department of Transportation stands. And these three principles will guide us as we head into the next century.

Texas is the second most populous state in the country. It is growing faster than any other state, and projected to continue to outpace the nation in growth well into the next decade. As Texas' population grows, it will be an ever-increasing challenge to meet our mission of safely, effectively and efficiently moving people and goods. It is a challenge I am confident the employees of this agency can handle.

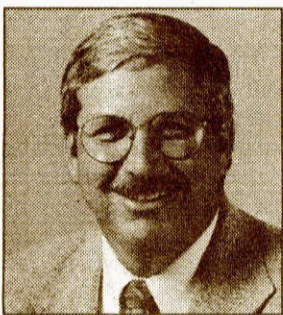
And it is not just Texans that we're serving. NAFTA and our booming economy are bringing people from all over the world onto Texas' highways, airways and waterways. More people mean more traffic, which in turn increases congestion as well as wear and tear on our transportation system. Given our current budget situation, it will become even more vital in the future to find innovative ways of funding transportation projects and programs.

One financial tool we will monitor closely is our State Infrastructure Bank. This innovative program allows us to lend a combination of federal and state moneys and provide other assistance to public and private entities to build transportation projects. The infrastruc-

ture bank gives us the flexibility to leverage transportation funds, accelerate projects and assist communities in meeting their transportation needs. This spirit of partnership will need to extend into all of our endeavors.

During the most recent legislative session, the responsibilities of the Texas Turnpike Authority were given to TxDOT. This adds yet another dimension to the future of Texas transportation. More than ever before, we'll rely on communities, citizens and businesses to become more involved in the process of selecting, planning and building transportation systems. The 21st century promises great strides in transportation. As our traditional role in transportation evolves, TxDOT and TxDOT employees will remain key. Our quality products and services have served generations of Texans, and department employees will ensure that quality transportation products and services continue in the future.

I am proud of the reputation that TxDOT and its employees have so deservedly earned over the past 80 years. I am confident that, as we look ahead, we will adhere to the high standards, innovative thinking and progressive planning laid out by our predecessors. And I venture a prediction: 80 years from now, people will look back at this time in the department's history and say, without hesitation, that the Texas Department of Transportation held true to its long tradition of excellence and accomplishment in planning, building, operating and maintaining a world-class transportation system. ★ Laney is chairman of the Texas Transportation Commission



Bill Burnett

Employees built department on integrity, dedication

For the past 80 years, this department has been a vital part of every Texan's life. And like many things in Texas, our transportation system is a source of pride for many Texans.

And it should be.

The multimodal network we boast today was built for Texans by Texans. It is one of the most advanced, most efficient and most well-maintained systems in the world.

As employees of this department, TxDOT is a vital part of each of our lives as well. With thousands of employees all across the state, the department has an unparalleled presence in communities statewide.

I firmly believe that the reason Texas has such an outstanding transportation system is because each employee who has worked for the department feels a personal connection with the work he or she is doing. And so it has been for the past 80 years.

In 1917, when the department was born, roads in Texas were some of the worst in the nation. "Getting the farmer out of the mud" is a phrase we use often around here. Some may say it's become cliched, but all you have to do is look at the condition of the roads 80 years ago and you'll understand how important that task was.

Over the years, we've broadened our horizons. When the department was created, registering vehicles and building roads were our focus. But along the way, as the state's needs and demands changed, we, too, changed.

We now emphasize all modes of transportation. We still register vehicles, but we also issue license plates and titles. We issue permits for trucks, salvage yards and used-car dealers.

We knew that travel went hand-in-hand with tourism. So, the department is one of the primary resources in the state for travel lit-

erature. Our department-operated Travel Information Centers are often the first taste of Texas many tourists get. And, in the glove box of almost every car in the state, you'll find a department-produced Texas map. Texans depend on us to provide them with hurricane evacuation routes, up-to-the-minute road condition reports and safe, well-maintained roads.

The department has mirrored changes in society. Indeed, looking over old newsletters, memos, spec books and policies is more than a stroll down memory lane — it's a history lesson. And it's an important lesson, because the work each and every employee over the past eight decades has done has benefitted Texas in some way.

Over the years, department offices have grown full of awards and recognition from all over the globe honoring our innovative, efficient, informative and successful contributions to transportation. But all the plaques and certificates don't mean anything without the commitment and dedication of each employee.

The department has been a vital part of my life, too, for the past 26 years. Like many of you, I came to the department as practically a kid. So, also like many of you, I can say I grew up in the department. I've gone through good times and bad times during my department career. I've learned life lessons and made life-long friends here.

Since the department was created 80 years ago, world wars have been waged, a man has walked on the moon and the planet has become connected by computers. But through it all, the honesty, dedication and commitment of department employees has remained constant.

For me, that is what stands out most about the department's history. It's something I am proud to be a part of. As we celebrate our 80th anniversary, I hope you feel the same way. ★ Burnett is acting executive director of TxDOT



Texas Department of Transportation

"80 Years of Service the TxDOT Way"

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Agency's mission more than highways



Take planes, trains and automobiles. Add bicycles, boats, buses and even pedestrians — all modes of transportation — and you get a picture of what today's Texas Department of Transportation is about — multimodalism and intermodalism.

From its creation on April 4, 1917, in response to the Federal Aid Road Act of 1916, the purpose of the Texas Highway Department was to move travelers across the state. In June 1917, the three members of the Texas Highway Commission took the first step in building Texas' transportation system when they established a statewide coordinated network of highways encompassing 8,865 miles of roads.

Congress passed the Federal-Aid Highway Act in 1944, calling for a national system of Interstate highways con-

necting principal metropolitan areas, cities and industrial centers. Federal dollars were available for three types of highways: an Interstate network, a system of major arterials and land-service roads (farm- and ranch-to-market roads in Texas).

In 1956, Texas received its first Interstate contract. A completed section of I-27 in the Lubbock District in 1992 culminated Texas' contribution of 3,200 miles to the nation's 45,000-mile Interstate system. With the completion of the system in sight and the tremendous growth experienced by many areas of the country came a new emphasis — instead of focusing solely on highways, transportation planners realized that all modes must be considered to efficiently get people from one point to another.

Multimodalism and intermodalism are not new concepts to Texans. In 1975, the 64th Legislature merged the 58-year old state highway department with the 6-year-old Mass Transportation Commission to form the State Department of Highways and Public Transportation (SDHPT). The new agency was directed to focus on an integrated transportation system.

Also in 1975, the three-member commission became overseer of the state's segment of the Gulf Intracoastal Waterway. Built in the 1930s and '40s, the 426-mile waterway connects Texas' Gulf coastline to railroads, highways and ports, and to an interstate marine thoroughfare that includes the Mississippi and Ohio rivers.

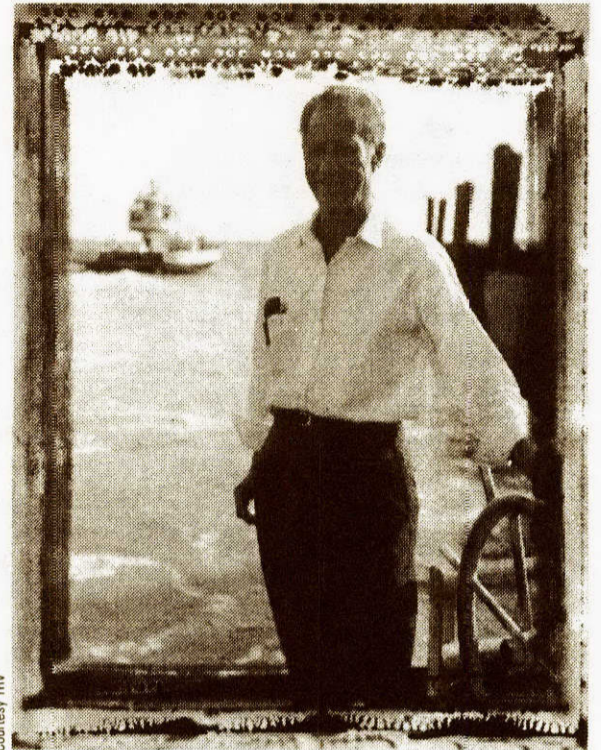
In the 1990s, with a completed nationwide Interstate system on the horizon, Congress' passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 mandated intermodal transportation systems, including bicycle and pedestrian facilities, and required all 50 states to appoint a bicycle and pedestrian coordinator. The department was already incorporating bicycles and pedestrians into its transportation system plans, and had designated a state bicycle coordinator before ISTEA mandated it.

To more accurately reflect the agency's mission, the Legislature in 1991 passed House Bill 9, establishing the Texas Department of Transportation by merging several transportation-related agencies:

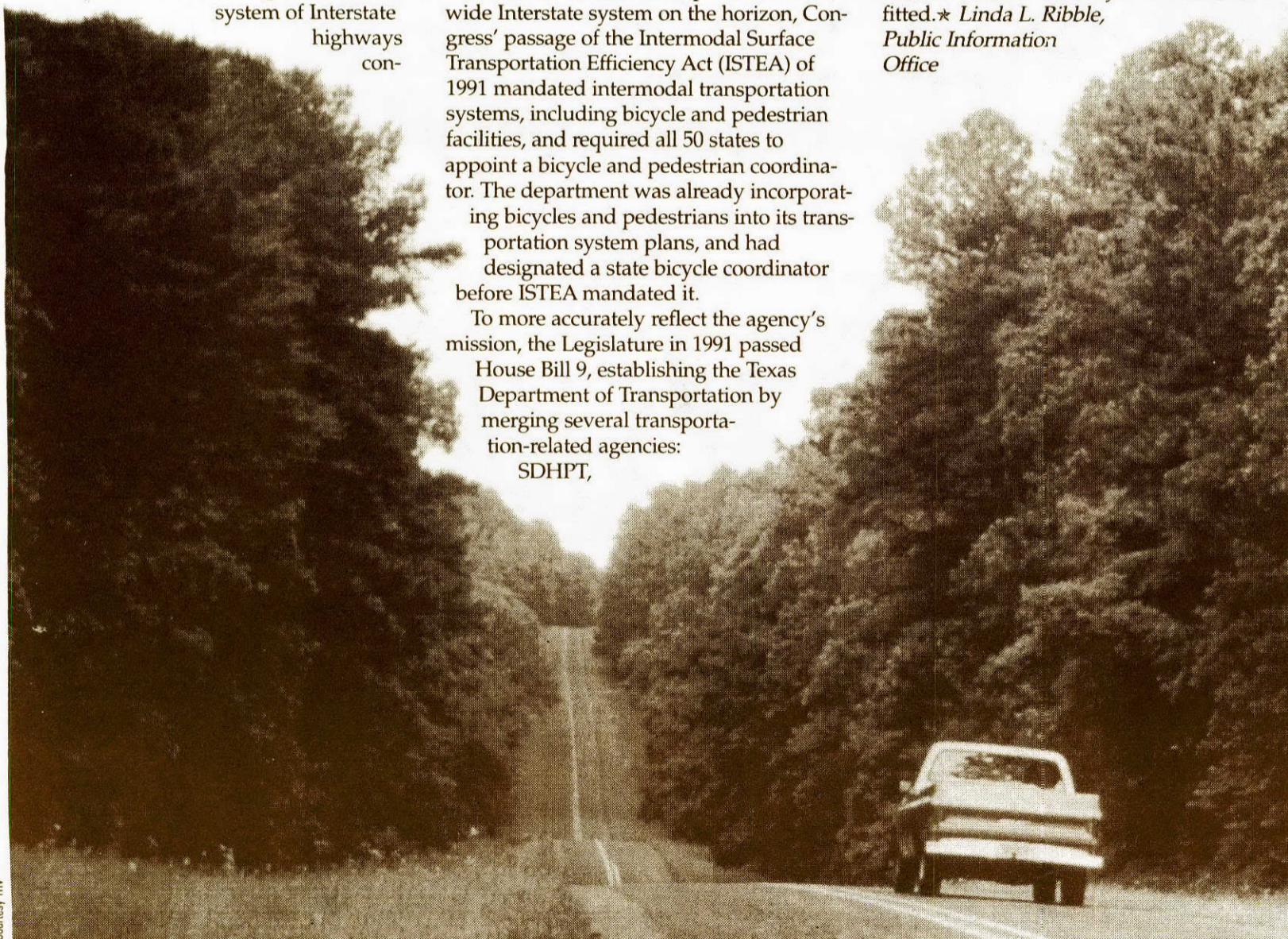
SDHPT,

the Department of Aviation and the Motor Vehicle Commission. Required by ISTEA and HB 9, Texas' first multimodal plan, the Texas Transportation Plan (TTP), covers all modes of transportation, moving people or goods by air, rail, highway, bicycle, transit, water, pipeline, telecommunication and human foot. The commission adopted the plan in 1994 and added it to the Strategic Plan in 1995.

Transportation in Texas today looks quite different from when the department was created. As the agency has grown and expanded its roles, all who travel through Texas — whether by plane, train, automobile, on foot, bike or ferry — have benefited. * Linda L. Ribble, Public Information Office



Ferries are an intricate link in Texas' transportation system. The Galveston and Port Aransas ferries serve as hurricane evacuation routes, and TxDOT's ferry operators are the last to leave during the storms. John Gray, above in 1972, supervised the Galveston ferries.



When the Texas Highway Department started out, its focus was roads. Over the years, the department's mission has shifted to include all modes of transportation, including,

rail, air, highways, public transit, bicycles, pedestrian and waterways. The agency's name — Texas Department of Transportation — has reflected this attitude since 1991.

Technology changed Texas transportation

Facts, trivia and tidbits

In the early 1900s, males 18-60 had to contribute five days a year to work free on roads in the area.

Gen. Roy Stone, the first director of the U.S. Office of Road Inquiry, told a Houston audience in 1895 that Texas had made less progress toward good roads than any other state. A century later, Texas' road system is considered one of the best in the world.

Texas Good Roads Association was founded in 1903, but folded in 1907. It was reborn in 1910, and heavily influenced the legislation that formed Texas' highway department.

In 1907, legislators set the first speed limit - 18 mph. Today, 47,000 miles of Texas highway have a speed limit of 70 mph.

In 1910, registration from 180 Texas counties showed a total of 14,286 vehicles. In 1995, there were 14,660,259 registered vehicles in the state's 254 counties.

Congress passed the Federal Highway Bill in 1916 to allocate federal funds to states for road construction. Only those with a state highway department could receive federal money for roads, so Texas was ineligible.

The Texas Highway Department was created on April 4, 1917, by the 35th Legislature. The department began operation on June 4.

When Gov. James E. Ferguson signed the bill creating the Texas Highway Department, Texas became the 45th state to set up a highway department.

When the department was created in 1917, there were 10 employees. After hitting a high of about 20,000 in the mid-1970s, there are 14,306 department employees today.

In 1917, the first auto registration fees were set at 35 cents per horsepower with a minimum of \$7.50. Today, fees average \$50.

Each of the three members of the first highway commission was paid \$10 per day plus expenses, total pay not to exceed \$1,000 per year. Today's members of the Texas Transportation Commission receive \$15,914 per year plus expenses.

At the first commission meeting in 1917, a state highway network of 8,865 miles was adopted. Today, the state-maintained systems includes 76,843 miles.

The transportation industry has gone incredibly high-tech. Highway construction, traffic management, material testing and other areas are light years beyond what anyone could have imagined when the department was born 80 years ago.

Along with its transportation-industry partners, the department has been on the cutting edge of transportation technology almost from the start.

In 1956, an IBM 650 Magnetic Drum Data Processing Machine was installed in the basement of the Main Office under the administration of the Highway Design Division. Applications such as construction contract letting, earthwork cut-and-fill and mass haul, and traverse closures were soon programmed. The letting system has the longest history of any computer function developed totally within the department's computer section.

By 1963, a larger computer was needed to handle the majority of the design calculations for the Interstate system.

In the fall of 1966, the department decided to use the central computer concept for automating fiscal management, motor vehicle registration and engineering operations. The central computer concept meant the transfer of computer sections operating in the Accounting, Right of Way, Planning Survey and Motor Vehicle Registration divisions to the Division of Automation.

In July 1967, the first third-generation computer, the IBM 360, was installed. By late 1967, the first fiscal management system - payroll - was completed. Paychecks were mailed to field personnel on Jan. 31, 1968, which was the first time in the 50-year history of the department that regular monthly employees in the field were paid on the same date as Austin office personnel.

On Feb. 5, 1968, the first group of certificates of title for motor vehicles issued from a computer was mailed to the vehicle owners. In 1987, development began on the Registration and Title System (RTS). It is the first client/server application developed at TxDOT.

TransGuide, the San Antonio District's Intelligent Transportation System, is a shining example of modern technology facilitating motorists.

Traffic operators monitor roadways from a state-of-the-art control center. The TransGuide network includes traffic loop detectors, fiber-optic cables, high-speed computers, high-resolution video cameras, changeable message signs and software programs, all of which allow employees to manage traffic on San Antonio's highways. A low-power television signal transfers the maps, scenario and lane closure information to the media and the public.

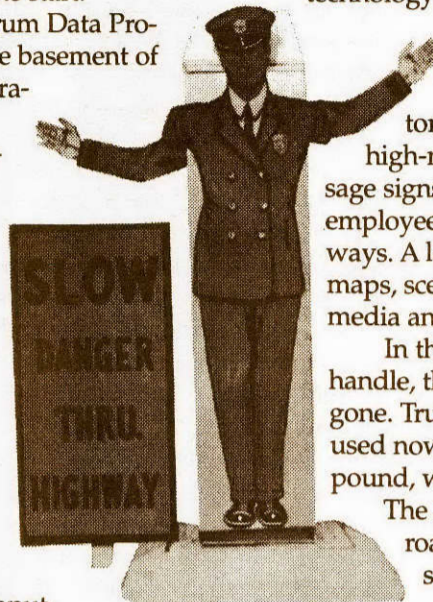
In the state's snow-prone areas, such as the Panhandle, the days of the horse-drawn plow blades are gone. Truck-mounted sand spreaders and de-icers are used now. Meltdown 20, a natural de-icing compound, was used during statewide ice storms in 1997.

The special compound can be spread before roads begin to ice, which saves time and could save lives.

Also, the Road Weather Information System predicts when bridges will freeze and allows maintenance workers to monitor weather from the comforts of the office

instead of driving treacherous roads.

Today the department's use of technology continues to grow. TxDOT is entering a new era with information available via the Internet/Intranet, Open Connect, Virtual Tape Drives, help desks, Client/Server application development and numerous new hardware and software enhancements. By the time TxDOT's 100th anniversary rolls around, the technology will have changed so much that we may no longer recognize it. ★ John Derr, Information Systems Division



This sign directed traffic on Texas 29 east of Austin in January 1941.



In 1926, the department's chief clerk's office was housed on the second floor of the Old Land Office building in Austin. Shown clockwise from left foreground are Marie Trueblood, Hazel Bergstrom, Johnny Byrnes, Irene Williams, Marie Midkiff and Bessie Bergstrom.

Department reflects Texas melting pot

When the department was created in 1917, there were 10 employees — all were men and seven were engineers. But the workforce that sprang from such homogenous beginnings is now more of a melting pot — professionally, culturally and socially.

Thousands of employees have contributed to building the Texas Department of Transportation. Each has brought unique perspectives, knowledge and experiences. As a result, the department's workforce has diversified dramatically over the years, and today it more truly reflects the state it serves.

Initially, the department developed a reputation as an "engineering organization," but changes in the mission over the years has caused the professions employed within the department to vary greatly. Today's workforce encompasses engineers as well as archaeologists, accountants, editors, surveyors, computer technicians, legislative analysts, planners, designers, lawyers, botanists, chemists and much more.

The road to diversity was not always straight and smooth. When the department was created, women couldn't vote. There was no Family Leave Act, no worker's comp and no cultural diversity training. To get where we are today, the department survived the shock of letting women wear pants. Professions other than engineering were recognized as vital to building quality transportation systems. And customs and traditions from all cultural, social and religious backgrounds are honored.



Courtesy TRV

Underwater bridge inspectors, such as these two in 1972, exemplify the varied types of jobs employees hold. TxDOT's workforce has diversified professionally, culturally and socially.

The Conditional Grant program, TRAC, and the HUB and DBE programs now encourage people of all creed and color to consider department careers or to do business with TxDOT.

Bessie Bergstrom was listed as chief clerk in 1929. It wasn't until Dian Neill became head of the Motor Vehicle Division in 1986, that another woman made it to top management. Maribel Chavez became the first female district engineer when she took the helm in Abilene in 1993. Today, women account for 22.2 percent of TxDOT's workforce. Minorities make up 29.2 percent, a significant change from 1917, when all 10 employees were white.★
Meredith Whitten, Public Information Office

The Materials and Tests Division was established in 1919 to examine the quality of materials and supervise testing at labs at Texas A&M and UT.

In May 1919, eight divisions (now called districts) were established at Dallas, Fort Worth, Abilene, Amarillo, El Paso, San Antonio, Austin and Eagle Lake. Later that year, the Abilene office was moved to San Angelo. In 1920, the Eagle Lake office was shifted to Bryan.

The first construction under the supervision of the Highway Department was a 20-mile section of untreated flexible base 16 feet wide between Falfurrias and Encino. Work began in October 1918 and completed in June 1920. The corridor is in the same location as present-day U.S. 281.

Congress passed a new Federal Aid to Roads Act in 1921 requiring states to have exclusive control in road design, construction and maintenance.

In 1921, the department expanded to four divisions: Administrative, which included the state highway engineer, clerical, auditing and bookkeeping; Registration, which issued and recorded motor vehicle licenses; Engineering, made up of materials and tests, bridge engineering, maintenance, drafting and checking; and Federal Equipment, which obtained and distributed surplus World War I equipment for road construction.

In 1923, the department expanded by adding the following divisions: Construction, which supervised the county engineers in design and construction; Equipment, which purchased equipment, materials and supplies; and Maintenance, which oversaw general maintenance of state highways.

In 1923, the 38th Legislature imposed the first gas tax — one cent per gallon. Three-fourths of the revenue went to the State Highway Fund. The remainder went to the School Fund. Since 1991, the state gas tax has been 20 cents a gallon.

The Highway Department assumed responsibility for maintenance on Jan. 1, 1924. Before that, maintenance was a concern of each county. During the first year, costs reached \$4.5 million.

In 1924, an Equipment Division was organized on a corner of the National Guard's Camp Mabry in Austin. This was the birth of the Camp Hubbard complex.

Maintenance crews called job site home

Life for maintenance crews has changed considerably since the early days. Sure, technological innovations have vastly improved the efficiency and quality of the work. But the environment in which employees work has undergone drastic changes, too. Today, when the workday is over, employees go their separate ways. But this wasn't always the case.

As John Trojcak, Yoakum District safety coordinator recalled, maintenance crews used to spend days — even weeks — living with co-workers in a trailer or tent at the job site.

"We'd leave Yoakum Monday morning and wouldn't return until Friday night," said Trojcak, who joined the department in 1959. "Living in the trailers was rough and getting there in the back of a pickup wasn't any fun in the winter, either."

Trojckak remembered crawling into a plywood tool box in the back of the pickup one cold winter morning.

"Another man and I were so cold we decided that riding in the toolbox was the only way to keep from freezing," he said.

The crew had two trailers with four men in each. They parked the

trailers in the maintenance yard in whatever county the crew was working in that day.

"We had no air-conditioning, no stove, and only a shower and sink. There was an Army bed in each corner and propane heaters at each end of the trailer," Trojcak said.

Because trailers were equipped with only a shower and sink, the men used the maintenance latrines.

"Some maintenance foremen would lock the bathroom doors at night, and we'd have to crawl through the windows. Luckily, they were big windows close to the ground," Trojcak said. "We never knew if they did it on purpose or just forgot we needed access."

In nice weather, the crews sat outside and told stories. Each worker received \$1.30 a day for his efforts.

Sometimes the various floating crews — mudjack, construction, bridge, etc. — were in the same county at the same time.

"Whenever that happened, we'd have someone cook a meal for all of us in the construction

crew's kitchen trailer. This was a treat because we got tired of eating out all the time," Trojcak said. Trojcak worked on the mudjack crew for 18 months before transferring to the asphalt crew.

"They had trailers, too, but four of us carpoled each day. I got married and took care of my mother and siblings. I needed to be home at nights. To tell the truth, I didn't miss living in the trailer," he said.

Trojckak liked being home at nights, but he had to leave by 5 a.m. to reach that day's location.

The floating crews were disbanded in 1973.★
Pearlie Bushong, Yoakum District



Department employees lived in this bunkhouse on a job site in South Texas.



Traffic safety is a crucial function performed by employees, such as this flagman in 1961.

Department, employees weather ups, d

In 1925, the Supreme Court ruled that ownership of roads is vested in the states.

The U.S. Bureau of Public Roads shut off all federal highway aid to Texas in 1925 because of the poor state of maintenance.

In 1925, the 39th Legislature gives the department authority to acquire land for highways by purchase or condemnation.

The department underwent its first reorganization in 1927. An entirely new commission took office and there were sweeping changes among key personnel.

The highway department's safety program to prevent on-the-job accidents was started in 1928.

In 1928, the department had 18,000 highway miles: 96 miles of concrete, 1,060 miles of asphalt, 3,000 miles of gravel, shell or stone, and 10,000 miles of just plain dirt.

The department spent \$495 per mile for maintenance in 1928, most of it for work to satisfy the U.S. Bureau of Public Roads to regain federal aid.

From 1928-1930, 1,100 miles of gravel roads received asphalt surface treatments. A single treatment ranged from 12-16 cents a square yard and double bituminous treatments from 17-21 cents a yard.

A July 1929 state law set a \$5 fee for vehicles on the highways that exceeded a certain size or weight. Today the basic issuance fee is \$30 plus a highway maintenance fee for vehicles exceeding a certain limit.

The State Highway Patrol, created on Sept. 1, 1929, was a part of the Highway Department until 1935, when the Texas Department of Public Safety was formed.

Highway crews started erecting signs and marking pavements in 1929 in accordance with standards set by the states through the American Association of State Highway Officials. During this first year, Texas crews erected more than 100,000 signs.

From 1929-1930, the department built 1,773 miles of new highways and improved 629 miles of existing roads.

As his last assignment, Travel and Information Division staffer Hilton Hagan wrote a history of the department through 1991. In celebration of the department's 80th anniversary, *Transportation News* is running excerpts from that work. This is the final chapter. *T-News* Executive Editor Helen Havelka continued the history from 1991 to the present.

Raymond Stotzer was district engineer in San Antonio. As in 1927, when Gibb Gilchrist took over the top job, Stotzer, too, could hardly object to many of the people in high places in the department. He had trained a lot of them himself.

As Stotzer took over the engineer-director's job, the great economic downturn in Texas was beginning. Times were tough all over. On top of that, the Legislature put together a retirement incentive plan to reduce state employee numbers. The mass departures left a deep hole. Between November 1986 and May 1987, 977 employees took advantage of the sweetened retirement benefits. Average length of service of those who left was about 29 years, creating a loss of 28,445 years' experience.

The department was hurting in other ways. Success was about to spoil a good thing. Good weather was allowing contractors to earn money for work performed at a sizzling rate. The department's "bank balance" got lower despite a nickel-a-gallon increase in gas taxes in 1986. Contractors are paid on monthly estimates filed by project engineers. When the weather is good, contractors, naturally, get more work done and earn more money that month. At last, the situation got so tense

within the administration that daily assessments of just how much money was left in the account were prepared. There were real worries that the department wouldn't be able to pay its obligations. For once in their lives, highway engineers prayed for bad weather. In time, revenue caught up with the outgo, the Legislature made the gas tax increase permanent, more projects were finished, a little bad weather turned up and the crisis passed.

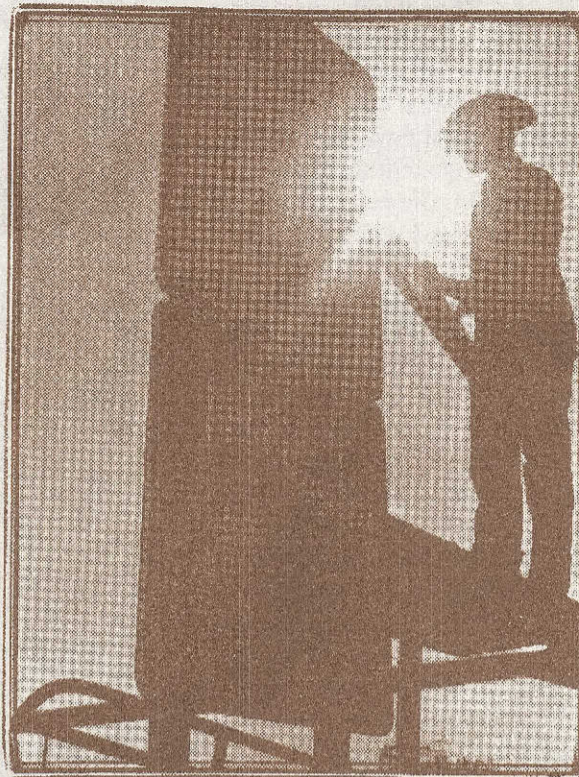
Stotzer stirred up a lot of the old hands when he told them that construction and maintenance were going to be combined under resident engineers "with you or without you."

For the whole history of the department, construction, represented by the residency offices, and maintenance had been separate entities. Sometimes, they were too separate. In some cases, there was a rift so deep between the two entities that members of the two groups hardly spoke to each other, even though they sometimes occupied space in the same building.

Stotzer sincerely loved the highway department and was proud to be a part of it. And he could not understand those who didn't. He once suggested in an engineer-director's column in *Transportation News* that people who were not happy in their work with the department owed it to themselves to find a job somewhere else. Love it or leave it, in other words.

Stotzer signed on in his native Seguin. He worked in residencies in Medina and Comal counties before becoming the engineer in charge of Comal and Guadalupe counties, during construction of major portions of the Interstate in those areas.

In 1968, he was



The Arab oil embargo caused Congress to set the speed limit at 55 mph in 1973. Speed limits returned to 70 mph in 1995.

appointed district engineer at Pharr. One of his major accomplishments there was the construction of the Queen Isabella Causeway from Port Isabel to South Padre Island, the longest bridge in Texas. In 1974, he moved to San Antonio as district engineer.

Late in his career, Stotzer was beginning to receive recognition. He won the DeBerry Award in 1985 for his work in San Antonio. Texas A&M University honored him with the College of Engineering Alumni Award in 1989. In July, the Western Association of Highway and Transportation Officials elected him president. On Oct. 3, 1989, he died, after a four-month battle with cancer. Byron Blaschke, one of the Comal Residency alumni, delivered the eulogy at Stotzer's funeral:

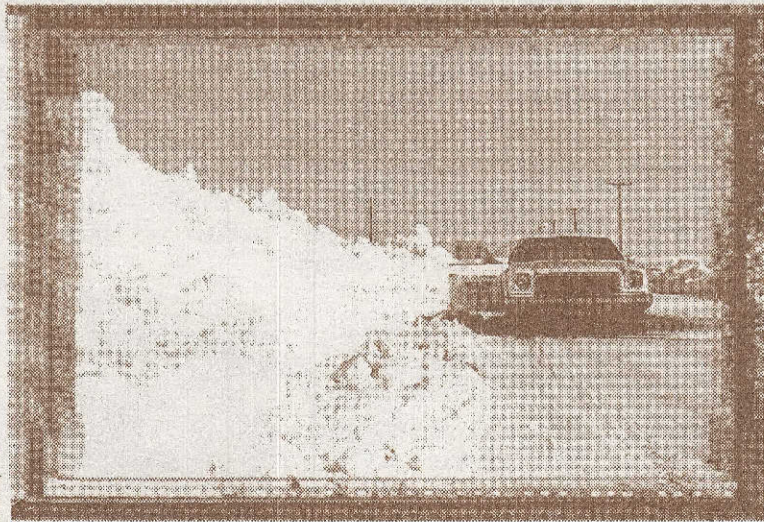
"Perhaps his greatest legacy will be the many people both inside and outside our department whose lives and careers have been so positively influenced by Raymond's guidance, motivation, management and philosophies. The legacies, the product of his love, caring and sincere dedication, will long serve the people of Texas. We know the highway of heaven will be much straighter and smoother."

Ten days later, the commission selected Dallas District Engineer Arnold W. Oliver to be engineer-director. He represented a new generation in the highway department. All engineer-directors since Greer had been in World War II. Oliver was a kid during the great conflict. Like many others, his first experience with the department was as a summer hire. He graduated from The University of Texas in 1960, and went to work full-time

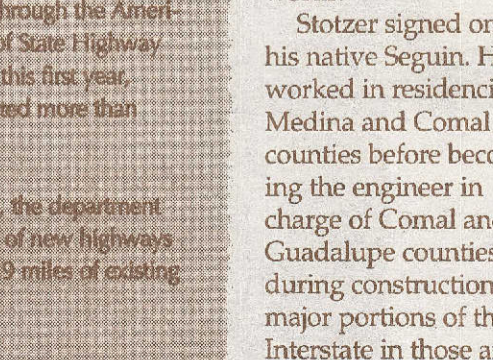
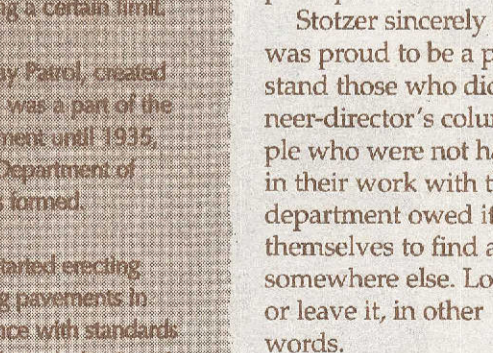
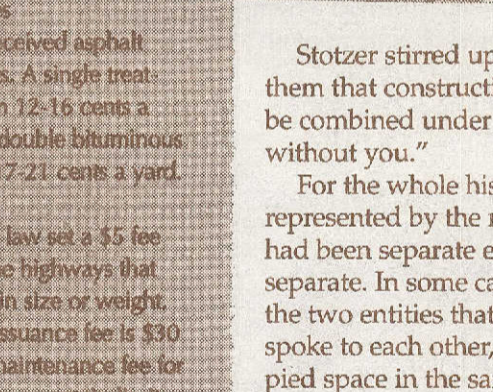
in Wichita Falls. By 1972, he was resident engineer in Graham.

In 1985, Oliver was brought to district headquarters in Wichita Falls as acting district construction engineer, but shortly was tapped to take over the Paris District. He moved to Dallas in 1987 to become district engineer there.

He was barely settled in as engineer-director when the department began working to meet the



Crews work round-the-clock during severe weather to keep roads, such as Farm-to-Market Road 722 in Moore County (above), open for motorists.



owns; make move into multimodal era

inquiries of the Sunset Review upcoming in 1991. Each state agency is called upon periodically to justify its existence. If it cannot convince the Legislature it is worthy to live on, the Legislature can simply fail to recreate it, and the agency is dissolved. While agencies like the highway department have no great problem justifying there be such a department, the Sunset Review is a chance for the Legislature to look over methods, organization and purposes of the agencies. It can be a penetrating look.

The department came out relatively unscathed. Shortly afterward, there was another audit undertaken by Comptroller John Sharp, looking for places to save money in state government. The study called for cutting the number of districts from 24 to 12 and a reduction in staff of about 500 people.

Oliver tried to maintain a steady hand, reminding fans of the status quo that not all change is necessarily bad. He talked about change and the "highway family" in a *Transportation News* column early in 1991:

"One way we change is in what we do. Many of our long-time employees, like me, grew up with the building of the Interstate system. That was like the family business. We've changed directions to maintaining and renovating the system we built. We're having to adapt to a world in which you have to accept and apply new ideas to keep up."

The department moved toward becoming a superagency for transportation. But the tradition and the standards had been set by generations of men and women who were proud to say, "I work for the highway department."

Said Oliver: "No matter what changes in direction and composition we experience, we can remain a family if we keep the ideals of quality, integrity and mutual respect."

Oliver ushered the highway department into the '90s with an uncertain future. The recommendation from the comptroller's report to downsize the department became legislation in 1991.

While Oliver and his task force worked on the mandate, the department continued to grow. In addition to the new Environmental Affairs and Civil Rights divisions, a statewide bicycle coordinator was named. Districts named coordinators to serve as contact persons on the local level.

The air was definitely cleaner in 1991. The department banned smoking in its buildings and vehicles. Smokers left their desks and sought refuge on newly built decks



Not all employees work on the roadways, as evidenced by these arc welders in 1964.

Courtesy TRV

generally located at the buildings' back entrances.

On the roadways, a research project using recycled asphalt pavement (RAP) was getting a lot of attention on Interstate 35 East south of Dallas. This project was the first 100 percent recycling effort and was both economically and environmentally beneficial.

In September 1991, the Texas State Department of Highways and Public Transportation ceased. Actually, it never skipped a beat when it became the Texas Department of Transportation.

With the new name came additional responsibilities. Joining TxDOT were the former Department of Aviation, the Motor Vehicle Commission and the Texas Turnpike Authority.

Marcus Yancey, then associate executive director, said the name was not a new idea. In fact, the Legislature had pondered this change since the 1970s.

The public may have been eliminated from the department's name, but public involvement increased with the addition of four advisory committees in aviation, bicycle use, environmental issues and public transportation.

There were other items passed by the Legislature that were overshadowed by the department's restructuring. A nickel increase in the state's motor fuels tax was approved. It was the first increase since January 1987.

The department was mandated to award private companies at least 30 percent of its yearly maintenance work budget. By 1996, TxDOT would have to contract at least 50 percent of its maintenance projects.

Oliver, now called the executive director, continued the unenviable task of reorganizing the department. Morale was low, and the strain of waiting on a decision was beginning to show. There was so much concern that a new employee assistance program (EAP) was available not only to the employees, but also their family members.

The wait was over on Nov. 6 when the Texas Transportation Commission approved the boundaries for TxDOT's 18 districts.

"We're gone. We're gone," was the reaction of one district engineer as he read the facsimile detailing the new organizational structure.

Atlanta, Brownwood, Childress, Lufkin, Paris, Waco and Yoakum were targeted for downsizing. Laredo was added to the list of districts. Downsizing was the official term used for the realignment, but, to the employees in these seven districts, "closed" best described their situation.

"Transition teams" assisted with answering questions, providing information and relaying concerns of the employees to the administration.

Another major event occurred before the end of the year. President George Bush came to Dallas in December to sign the new federal transportation bill, the Intermodal Surface Transportation Efficiency Act (ISTEA). Federal

Please see History, page 8

By 1930, the department's maintenance costs began to run about \$1 million a month statewide.

In 1930, the department had three nail pickers operating around the state. One machine harvested more than 6,000 pounds of nails while working on roads in the 12 counties in the Waco District.

The number of districts increased to 25 in 1932.

The Main Office in Austin was constructed in 1933 and paid for from state highway income at a cost of \$403,900. It was named the Dewitt C. Greer State Highway Building on Oct. 21, 1961.

In 1933, the Legislature passed a law that authorized the Prison System to manufacture license plates. The first state-manufactured license plates were issued in 1935.

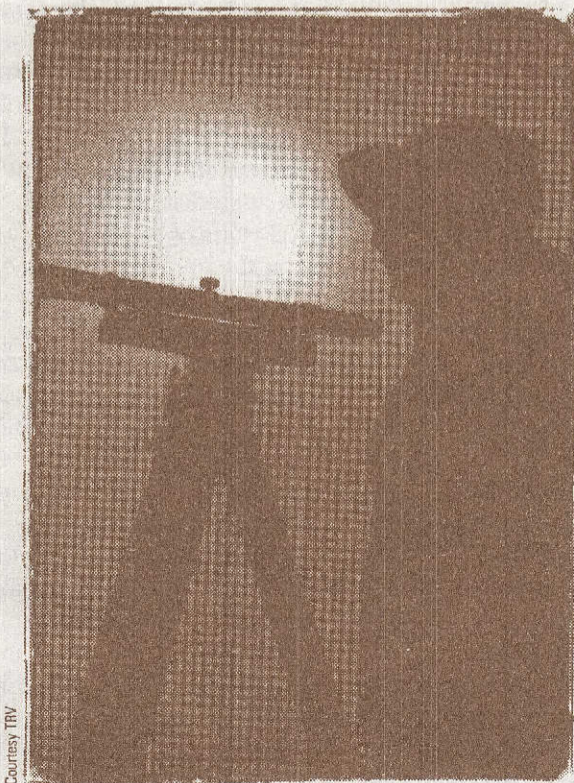
The state appropriations bill in 1933 cut salaries; assistant resident engineers' pay went from \$175-\$250 to \$135-\$190. Typists were paid \$90 per month. Maintenance foremen pay capped out at \$125. Laborers weren't allowed to work more than 30 hours per week for no more than 45 cents per hour. Unskilled laborers received 30 cents an hour.

By 1934, the custom of delaying the mowing of right of way until the flowering season was over and annual wildflowers reseeded themselves had been instituted.

From 1934-1936, employees planted 300,000 trees and 500,000 shrubs at 11 cents which included digging the hole, removing the tree from its original location, plus planting, mulching and watering. This marked the beginning of the department's beautification projects.

In 1936, Dewitt Greer became the chief engineer of highway design and construction. He was the youngest division head employed by the department. He took a cut in pay to move to Austin - from \$408 a month as Tyler district engineer to \$333 as division head.

U.S. 81 and U.S. 287 in Montague County are paved with gold. When 39 miles of these roadways were paved in 1936, sand taken from a local pit was mixed with paving material. The sand contained gold, but in small amounts. According to a roadside historical marker, the gold in the sand was valued at 54 cents per ton, or \$31,000 in these sections of highway.



Courtesy TRV

Technology advances have affected surveying techniques dramatically since 1961, when Dea Lawless worked on U.S. 79 west of Carthage.

The state's first highway travel map was issued in color in 1936.

The department constructed 13 tourist information stations at major highway gateways to the state in 1936 in celebration of 100 years of Texas independence. During the Centennial period, 29,600 automobiles carrying Texas visitors stopped at the stations, which were staffed by Texas A&M University cadets. In 1996, 1,846,206 visitors stopped at the 12 TICs, which are operated by the department.

The first Farm-to-Market Road was built between Mt. Enterprise and Shiloh in Rusk County, a distance of 5.8 miles. The project began in April 1936 and was completed in January 1937 at a total cost of \$48,015.12.

Many of the first license plates were made by their owners after receiving their registration number. Some were made of wood, leather and other materials. Some people used the saddle or blacksmith shop to make their license plates. There was no standard size for the plates because there were so many methods used to make their tags.

On April 22, 1938, Leah Moncure became the first woman to be registered as a professional engineer in Texas. A graduate of the University of Texas, Moncure worked in various districts, Highway Design Division and Right of Way Division. She retired from the department on Aug. 31, 1964.

The growing problem of auto theft and disputes over motor vehicle ownership led to the creation of the Certificate of Title Act, which took effect Oct. 1, 1939.

Dewitt Greer was minding his own division on July 1, 1940 when the commission appointed him chief executive officer of the department, 27 days before his 38th birthday. He held the job for more than 27 years and returned for an encore of 12 years' service on the highway commission. He was in charge of the construction, maintenance and operation of a highway system totaling about 22,600 miles. New Texas license plates were not issued during 1943 and 1944 because of the metal shortage brought about by World War II. Instead, small tabs were issued to validate the license plates already on the vehicle.

Congress passed a Federal Aid Highway Act in 1944 that described a "National System of Interstate Highways" limited to 40,000 miles. The act did not provide any money, however.

History

Continued from page 7

money to Texas increased by approximately \$385 million per year.

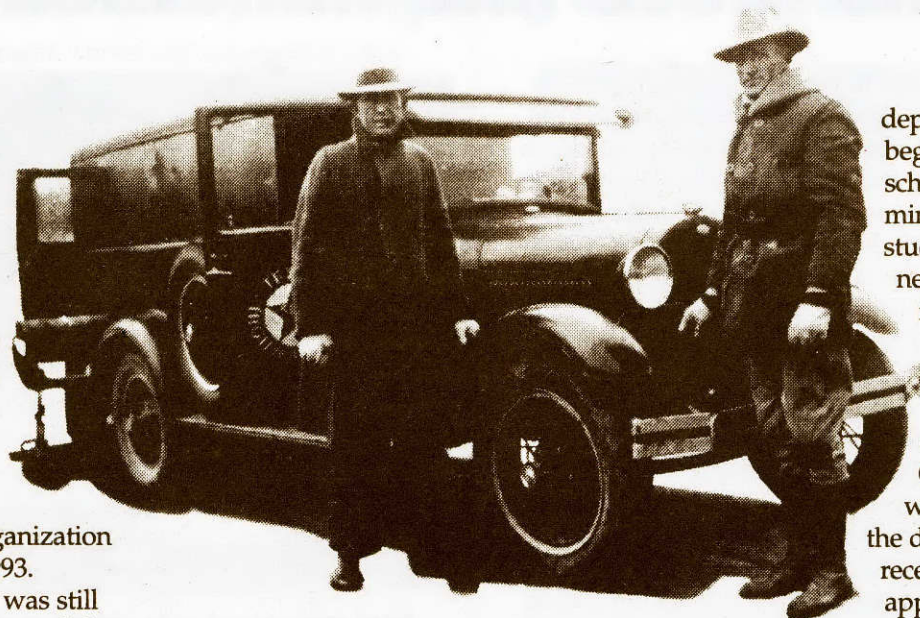
The new year was not a month old when TxDOT's reorganization was halted by a house concurrent resolution, which directed the department to suspend all reorganization efforts until June 1993.

While the future was still unclear, Oliver addressed the issue in his March *Transportation News* column: "We are going to put reorganization behind us and proceed with what we do best: plan, design, build and maintain one of the best transportation systems anywhere."

One of the new Motor Vehicle Division's most interesting functions is administering the state's lemon law. The law helps owners or lessees of new vehicles when they have repeated problems and cannot get their vehicles repaired. The division licenses new car dealers and manufacturers doing business in Texas, and also regulates their advertising and sales practices.

A new term — SUPERPAVE (Superior PERforming asphalt PAVEment) — made its debut. "Performance-based specifications" were expected to make pavement super durable, and involved new formulas based on how asphalt binders and hotmix hold up on the road. Texas is one of three state DOTs evaluating the use of this specification.

How to maintain the more than 800,000 acres of highway right of way with less mowing received a lot of attention. The public had become accustomed to the look of a well-manicured lawn, but environmental



Andy Anderson, right, prepares to put his nail picker to work in Mineral Wells in 1929. Anderson remembers the other man, his helper, only as Mr. Lane. One nail picker harvested 6,000 pounds of nails in the Waco District alone.

and financial constraints changed that. The department's vegetation management standards called for vastly reduced mowing.

There was no reduction in traffic on Texas highways, and, with the advent of the North American Free Trade Agreement (NAFTA), conditions were expected to worsen.

Due to the increased trade among the U.S., Mexico and Canada, TxDOT began reviewing its plans for transportation infrastructure in the border area and ensuring adequate capacity in the region.

Also carrying a hefty price tag was the compliance with the Federal American with Disabilities Act. These improvements to the highway system would cost an estimated \$25 million and an additional \$17 million to upgrade department facilities.

Districts began gearing up to ease congestion in urban areas. Six districts — Fort Worth, Dallas, El Paso, San Antonio, Houston and Austin — moved Advanced Traffic Management Systems into their freeways. Once in place, the telecommunica-

tion system will detect traffic mishaps and offer motorists alternate routes. The system includes high-occupancy vehicle (HOV) lanes, video cameras, changeable message boards and courtesy patrols.

TxDOT took several steps to improving its cultural diversity. The Civil Rights Division was created. The

department also began offering college scholarships to minority students studying civil engineering in exchange for two years of employment after graduation.

The popularity of this Conditional Grant Program was apparent when the department received more than 80 applications two months before the deadline.

There were 38 students accepted in the initial year. Eventually the program was expanded to include other degrees.

TxDOT became the sixth largest governmental vehicle fleet in the nation. Of the 699 on-road vehicles being purchased in 1992, 559 will be powered either fully or in part by alternative fuels.

There was a lot of anxiety heading into the new year. The 73rd Legislative session was about to start, and the memories of the reorganization was fresh on employees' minds.

In April, TxDOT got the OK to have 25 districts. Employees breathed a sigh of relief, but, like the dreaded layoffs in 1975, the bitter taste of that experience remained with many employees for years to come.

The restructuring of the department didn't stop in 1992. The Laredo District was almost a sure bet. This new district already had two employees — a district engineer and a public affairs officer. No one was sure which counties would become part of the district.

The Texas travel map had a new look. For nearly 20 years, the Texas Panhandle had been placed in the New Mexico area. The map grew 6-1/4 inches and required a new fold to accommodate the Panhandle. The additional size allowed three new areas to be included in the insets.

After 33 years of service and weathering the undesirable task of realigning the department, Oliver announced he would step down.

In his letter to all TxDOT employees, Oliver explained his reasons for leaving. "It is vital that the commission and executive director be a very close-knit, dynamic team with complete trust in each other. With the statutory responsibility to select the executive director, this person should be one of their own choosing."

Bill Burnett, district engineer in El Paso, was named executive director. A graduate of Texas Tech, Burnett started with the department in 1971. He became the Abilene District Engineer in 1986 and was transferred to El Paso in 1991.



Courtesy TRV

Texas Highway Department radios, charged by an auxiliary generator, were among the few means of communication during and after Hurricane Celia ravaged the Corpus Christi area on Aug. 3, 1970. The city was without electricity, water, telephone and telegraph. Thought to be a relatively benign hurricane, the storm accelerated in intensity as it neared land, and struck the modern coastal area with winds of 160 mph, gusting to 180 and wreaking unprecedented destruction.

An attractive incentive was passed by the Legislature, giving those employees who qualified for retirement more money for doing so. TxDOT lost more than 35,000 years of experience at the end of fiscal '94 as 1,535 employees retired that year.

The incentive claimed Oliver and his management team, 11 district engineers and seven division directors. For the first time in department history, a job notice for all 25 district engineer positions was posted. Not all of the DEs retired, but it was established to save time in filling the vacancies.

Before Oliver left, Continuous Improvement was introduced as TxDOT's approach to quality. This process encourages the department to continually examine not only its operations, but also the way employees approach their jobs and deal with each other. Burnett endorsed the process, and CI teams became a part of everyday life.

Something that became a familiar part of life in Austin for a year was the artificial rainstorm. As part of a research project to determine what pollutants are contributed from roadway construction areas, rainfall simulation equipment was set on Loop 1 (MoPac Boulevard).

Special signs and the media alerted the public when the rain events were in progress. District officials made every effort to warn drivers, especially those in convertibles and motorcycles. The rain simulator became a popular topic on radio talk shows.

The "yellow book" was pulled from TxDOT shelves in 1993. The construction specifications were rewritten.



Travel Information Center counselors, such as this one at Denison in 1964, are often the first people visitors to Texas see.

ten, and a blue-covered spec book replaced the 1982 edition. The blue book had a short shelf life. A couple of years later, it was replaced by the "red book" which incorporated metrics.

The largest highway construction contract ever in Texas was awarded when the commission approved a \$105,538,994 contract to rebuild a section of U.S. 75 (North Central Expressway) in Dallas.

TxDOT had an idea that stuck on Texans when it moved the vehicle registration stickers from the rear license plate to the inside windshields. The larger sticker's main purpose was to deter theft. If a sticker was peeled off, "VOID" appears, making it not worth stealing.

Retooling was introduced in 1994 to evaluate TxDOT's business and information needs. Teams identified improvement opportunities; evaluated applications supporting each process; and identified and set business and information priorities.

In 1995, work on the department's first transportation enhancement projects began. Part of ISTEA, \$180 million was dedicated during the six-year period for these non-traditional projects. Courthouses, railroad depots and even a cemetery showed up on TxDOT's letting schedule.

TxDOT also took a step into cyberspace, going on-line on the Internet. People around the globe can access departmental information with the click of a mouse. Don't mess with Texas' road names was the public outcry when TxDOT attempted to rename 1,582 miles of farm-to-market roads as "urban roads." The department planned to change 263 FMs in heavily populated urban areas to more accurately describe the function of many of these roads. Many citizens considered it "un-Texan" to switch and made their feelings known. When the federal government



A Lufkin employee works on prestressed concrete operations.

repealed the national maximum speed limit, 70 mph returned. Before the end of 1995, the first 70 mph signs went up. Speed limit changes were an ongoing process during the first seven months of 1996. There were many concerns about the increase, and by the end of the year, a study was under way to look at effects of the change.

Other highlights of the year included the Interstate System celebrating its 40th birthday; TxDOT was asking drivers to "Give Us a Brake;" and Laredo finally had a place to call home, opening its district headquarters.

The Brownwood District earned an impressive mark in the TxDOT record book in fiscal '96. The district completed the year without recording a single lost-time accident.

Another division joined TxDOT in 1997. The Turnpike Authority Division will develop and operate turnpike projects as part of the state highway system.

As the department prepared to celebrate its 80th anniversary, Burnett resigned as executive director, ending his 26-year career with the department.

"I'm proud to have had the opportunity to serve the citizens of Texas, and I look forward to continuing that service in a new and challenging capacity," Burnett said. "There is no finer place to develop and grow as an engineer than TxDOT." He will long be remembered for bringing blue jeans and boots to the Greer Building.

During the first 80 years, the department weathered changes in every aspect of its operation. Diverse cultures, personalities and experiences played an important role in its history. It is these same characteristics that will likely shape TxDOT in the next century.★

In June 1949, the Gulf Intracoastal Waterway between Corpus Christi and Brownsville opened.

Texas' first urban expressway was the Gulf Freeway (I-45) in Houston. The first major portion of this road opened in 1952.

On April 9, 1952, employees on the top floors of the Greer Building were shaken by a mild earthquake. The tremor reached from Kansas south as far as Austin, with the epicenter in Oklahoma.

The Baytown Tunnel under the Houston Ship Channel opened Sept. 22, 1953, replacing the Morgan's Point Ferry. Forty-two years later, it was replaced by the Fred Hartman Bridge.

In 1953, the Legislature reduced the weekly hours of state workers to 40 (8 to 5 with a whole hour for lunch). In addition, a raise of \$180 per year was authorized.

In 1956, Congress appropriated \$25 billion for construction of the Interstate system from 1957 through 1968. The figure later was considerably revised.

In 1956, the Highway Revenue Act increased gas and other motor vehicle taxes and created the Highway Trust Fund by earmarking gas, tire and truck/bus weight tax solely for highway construction and maintenance.

In 1961, Hurricane Carla swept through Port Lavaca, destroying the center of the old causeway and rearranging some slabs on the newly constructed \$6 million bridge. Repairs were quickly done to allow traffic to cross the bay between Point Comfort and Port Lavaca rather than having to use the 40-mile detour over land.

The parking lot at 11th and Congress by the headquarters building in Austin opened April 1, 1965. About 1,900 employees applied for the 138 spaces, 50 of which were allotted to the highway department.

The first Texas specialty license plate, the personalized plate, was issued on Sept. 1, 1965. In fiscal '97, 177,473 plates in 79 specialty plate styles were issued.

The department was spending about \$75 million annually on the construction, maintenance and betterment of the FM system by 1967.

In 1968, the Pharr District built the Queen Isabela Causeway from Port Isabel to South Padre Island, which was, at that time, the longest bridge in Texas.

Vehicle fees fund fledgling department

VTR, department's first division, celebrates its 80th anniversary, too

In October 1970, all women working for the department were allowed to wear pants as a result of a memo from the Employees Advisory Committee submitted to the department's head, James Dingwall.

By September 1971, the average lead time necessary to bring a highway project from conception to the award of a construction contract was six years and five months (77 months). That was an increase from 34 months in 1956, the year real work on the Interstate system began, and 44 months in 1961.

In February 1973, effects of the Arab oil embargo were beginning. Because of the restrictions put on gasoline purchases, Congress passed a nationwide 55-mph speed limit, gasoline prices skyrocketed, service stations closed on Sundays, projects were delayed, maintenance was postponed and a hiring freeze went into effect. The embargo caused a decrease in motor fuels tax collections and the highway program nationwide stalled.

On Jan. 20, 1974, the maximum speed limit in Texas was reduced to 55 mph. About 17,200 signs were changed at a cost of about \$621,000. In December 1995, the speed limit returned to 70 mph, costing TxDOT about \$8 million.

On June 19, 1975, Gov. Dolph Briscoe signed a bill that merged the Texas Mass Transportation Commission and the highway department to form the State Department of Highways and Public Transportation.

Texas Highways became the official travel magazine of the state of Texas when the Legislature passed House Concurrent Resolution 26 in 1975. The magazine now has subscribers in 148 countries.

In 1975 the Legislature made the department the local sponsor of the Gulf Intracoastal Waterway. The department had to assist with such things as helping the corps find suitable areas to place the sand dredged from a channel during maintenance and improvement of the waterway.

Getting from point A to point B within Texas at the turn of the century didn't always go smoothly — especially if the journey was of any significant distance. Travelers often were forced to make their own trails if they wanted to leave town, making trips nothing short of an adventure. Most Texans still got around by horse or on foot.

It wasn't long before the automobile became a more popular method for getting around, despite its crudeness and awkward handling. Vehicles soon numbered in the thousands, and it was necessary to regulate them. In 1907, state lawmakers passed House Bill 93, giving county clerks responsibility for motor vehicle registration. The fee was 50 cents for each "machine" registered. County clerks numbered vehicle owners' names in order of registration.

The law made motor vehicle owners responsible for displaying the assigned number in a conspicuous place in figures not less than 6 inches in height. The owner decided how that number would be displayed on the vehicle. Some made their own out of wood or leather. Others, preferring more durability, visited the local saddle shop or blacksmith for a custom-made job. These methods of identification were the first license plates in Texas. However, duplication of registration numbers was quite common from one town to another.

Registration became more common as the number of automobiles increased across Texas. What hadn't changed, however, were the roads. Even the advances in automobile design and features weren't enough to compensate for the treacherous driving conditions. A good rainstorm only made things worse. As frustration grew statewide, motorists pressured legislators to create a highway department.

In 1916, the U.S. Congress passed the Federal Highway Act, which provided \$75 million in matching federal funds to states that were building roads and making improvements to existing ones. Texas lawmakers, who convened in regular session in 1917, acted quickly to create a way for Texas to pay its share of the road improvement costs. Rep. Leonard Tillotson of Austin County sponsored HB 2, which created the State Highway Department. The duties of this new state agency were to be carried out using funds from the collection of motor vehicle registration fees. The modern-day Vehicle Titles and Registration Division (VTR) was born.

"Our division is celebrating its own 80th anniversary this year," said VTR Director Jerry Dike. "Our predecessors in motor vehicle registration



Vehicle registration in Texas began on July 1, 1917, three months after the department was created. By the end of 1917, 194,720 vehicles were registered.

were actually responsible for building the foundation of the Texas transportation system." The law required vehicle owners to send their registration application to the department. Lawmakers set the fee for motorcycles at \$3 and automobile owners were charged 35 cents per horsepower, minimum \$7.50. Fees for commercial vehicles were based on carrying capacity and ranged from \$20 to \$300. Vehicle registration began July 1, 1917. The department was required to record all registrations. A receipt was sent to the owner, along with a distinguishing seal bearing the words, "Registered Motor Vehicle, Texas" which was displayed on the automobile's radiator. Two license plates were also sent to the registered owner. By the end of 1917, the department had registered 194,720 vehicles.

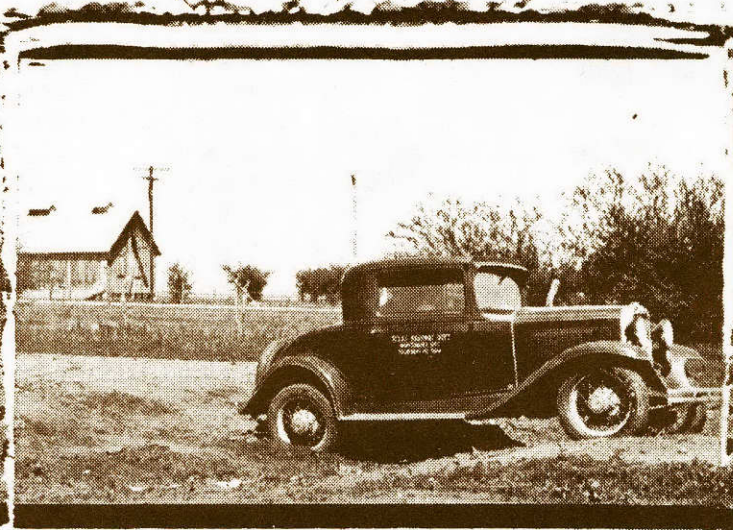
The fees for vehicle registration were deposited in a special fund called the State Highway Fund. This money would be used primarily for construction of public roads statewide. Twice a year, half the collections received from the counties were sent back to the counties to finance the maintenance of public roads that were built according to plans approved by the Highway Department. Texas was finally on its way to getting the roads its citizens demanded and needed for greater convenience and mobility.

Today, approximately \$650 million in vehicle registration and titling fees are deposited in the State Highway Fund. The state's 254 counties keep more than \$300 million for being the department's statutory agents. Those numbers are expected to increase to a record level in 1997, when total registration and titling receipts should exceed \$1 billion. The increase in money collected obviously is linked to the number of vehicles on the road. There are more than 15.3 million motor vehicles registered in Texas.

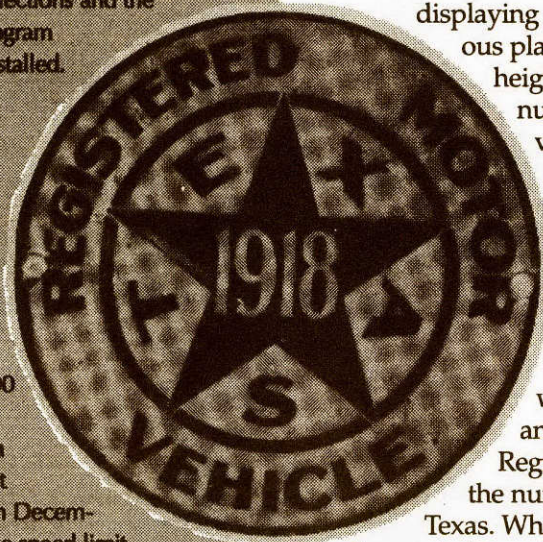
VTR's responsibilities have changed dramatically since 1917. The division issues more than 100 types of license plates and has a staff of more than 400 at 17 regional offices. Along with registration, VTR issues motor vehicle certificates of title and licenses salvage yard dealers.

Technology has brought sophisticated automation to the registration and titling process. VTR is close to completing implementation of the Registration and Title System (RTS), which links the state's 254 county tax offices with TxDOT's mainframe computer. RTS gives county staff point-of-sale access to motor vehicle data, enabling timely updates of that information.

"We've come a long way from the days when registration information was recorded by hand and filed away," Dike said. "But the desire to take care of our customers is as strong as ever. VTR is proud to contribute to the department's goals of being this nation's top transportation agency." ★ Mike Viesca, Vehicle Titles and Registration Division



Motor vehicle registration fees were used to help get Texans "out of the mud." The money collected funded the new Texas Highway Department.



Protecting environment added to mission

Federal, state regulations, public concern spark new attitude

In 1917, when the department was created, environmentalism was not the big international issue that it is today. Department employees were concerned about aesthetics and the impact their work had on their surroundings, but nowhere near the extent of nowadays. Ozone days, endangered species and lead-based paint were not in the forefront of employees' minds like they are today.

TxDOT has mirrored the world's concern and compassion for protecting, preserving and enhancing the environment. This concern is apparent in everything the department does, both in the field and in the office.

TxDOT's environmental work — archeology, historical surveys, biological issue reviews, wetland mitigation, environmental justice, hazardous material mitigation — performed over the past quarter of a century all have a common root — the National Environmental Policy Act (NEPA) of 1969.

NEPA created the first federally mandated program for the environmental documentation of transportation projects — the process by which every proposed transportation project's potential impact on the environment is evaluated in public view and brought into the decision-making process. For the first time, a formalized, centralized interdisciplinary approach was brought to the process of examining the impact that a transportation project will have on the natural and human environment.

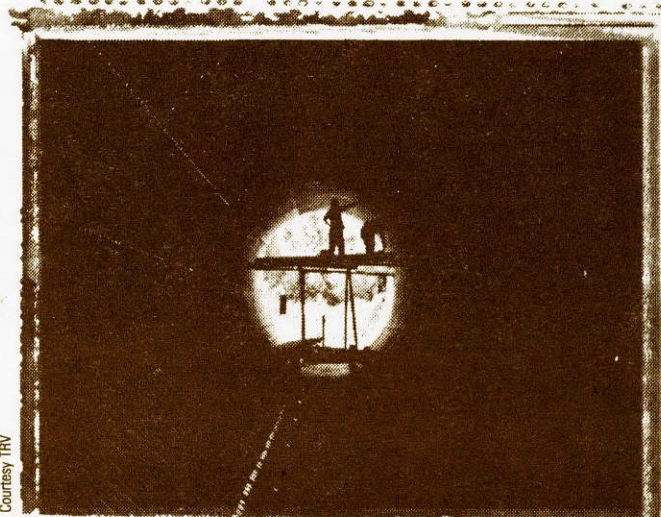
To quote from the purpose statement of NEPA implementation regulations, "NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken."

To ensure compliance with the tenets of NEPA, federal transportation funds were tied to the formalized environmental review process.

Before NEPA, environmental issues were dealt with as they came along. As far back as 1930, then State Highway Engineer Gibb Gilchrist instructed highway construction crews "...to preserve on the right of way of state highways as many trees as possible. In clearing the right of way of state highways, or in widening the right of way, no trees should be cut which would beautify the highway, or which could be preserved."

Public involvement, the process by which those most directly impacted by a transportation project were polled about their concerns, was the primary focus of the planning stage of a proposed project in the pre-NEPA era. The process was neither formalized nor centralized, and lacked a unifying theme. For many years, the public's main desire was to see mobility improved, a desire manifested in the highway department's ambitious road-building campaign. NEPA brought a formalized sense of order to this process.

Beginning in 1970, the Texas Highway Department answered the call of NEPA by establishing the Environmental and Community Factors



Courtesy TRV

Highway Department employees from the Austin District work on a steel draining pipe in the Bastrop area in August 1962.

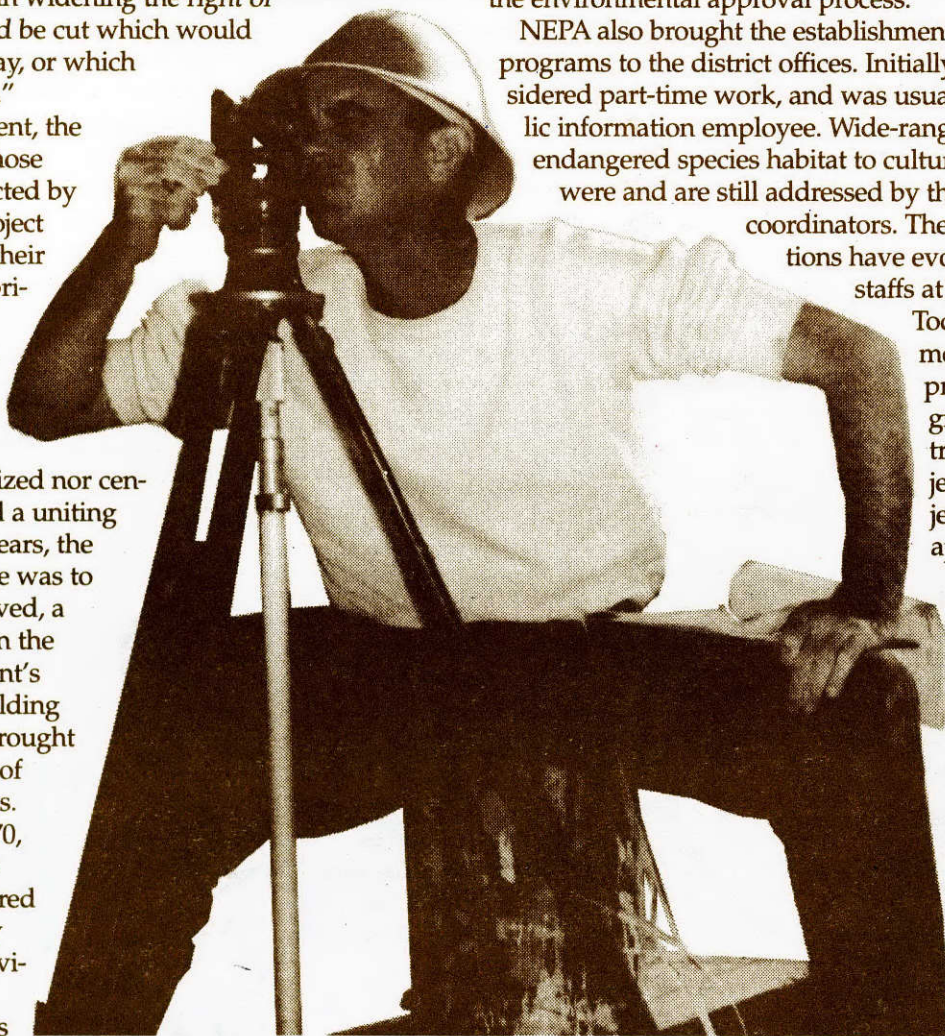
Section and the Archeology Section under the Highway Design Division.

The Environmental and Community Factors Section included a sociologist, an economist, a biologist and a meteorologist who evaluated issues associated with their disciplines for proposed transportation projects. The Archeology Section performed archeological surveys and, when needed, excavation and conservation of artifacts, along the routes of proposed transportation projects. Historical surveys, in which historians searched for National Register eligible structures along proposed right of way, were also under the purview of the Archeology Section. A separate group dealt with air quality and noise abatement issues.

The two sections were merged in 1985 to form the Environmental Section of the Highway Design Division. In 1993, the Environmental Section was merged with the recently established Division of Environmental Affairs, which dealt primarily with planning and policy issues, to form the Environmental Affairs Division (ENV). Today, ENV has a staff of 64 who assist district personnel with the environmental approval process.

NEPA also brought the establishment of environmental programs to the district offices. Initially, the task was considered part-time work, and was usually given to a public information employee. Wide-ranging issues from endangered species habitat to cultural resource issues were and are still addressed by the environmental coordinators. These part-time positions have evolved into full-time staffs at each district.

Today, the environmental review process is an integral part of every transportation project. With each project receiving approval long before construction begins, impacts on the environment and local populations can be avoided or minimized and money saved over the long term. ★ *Jim Dobbins, Environmental Affairs Division*



Donald Dial, a department employee in 1957, conducts a full-scale pretensioned beam test.

The Governor's Office of Traffic Safety transferred to the department in 1975.

In 1975, the department's top position was renamed engineer-director from state highway engineer.

In 1975, the department had about 19,500 employees, already down about 1,000 from the peak. A major layoff reduced the department's workforce to 14,000. Only about 3,000 employees were laid off. The remaining reduction came from non-replacement of employees who quit or retired.

In 1978, Texas went to a year-round licensing program with the registration coming due on a segment of the vehicle population each month, more evenly spreading the work throughout the year. Before 1978, all licenses expired at the same time, at midnight March 31. This resulted in swamped county tax offices during the first three months of the year and particularly hectic scenes in March every year.

The Del Rio District was disbanded in 1982 because of a shortage of significant construction work.

In December 1982, the department made the archaeological find of the decade, the 9,000-year-old skeleton of a woman, later dubbed by the press as the "Leanderthal Lady." The excavation site was on FM 1431 near Cedar Park and Leander in the Austin District. Removal of the skeleton became a media event, and the department's chief archaeologist, Dr. Frank Weir, did little but talk to the media for the next six days.

The state's largest pothole occurred on Aug. 12, 1983, on FM 442 in the Yoakum District. It really wasn't a pothole, but a sinkhole caused by underground flooding. It reached a depth of 25 feet and covered two vehicles, which were found stacked on top of each other when the hole was drained. Luckily, the drivers of the vehicles were able to swim to safety. The "pothole" was not repaired until the following spring.

Philip Barnett, a maintenance technician from Tahoka, received the first Extra Mile Award for his actions on June 18, 1983, when he rescued two women from the debris of a tornado. Since then, 92 employees have received the award.

Interstate 40 opened in July 1984, superseding the famous Route 66.



Maintenance man James "Flossy" Denham takes a break from his work at the Sulphur Springs warehouse in 1958. Denham worked as a semi-skilled laborer for 12 years. He retired in 1960.

The "Adopt-A-Highway" program took off in May 1985, when the Tyler Civitan Club adopted a two-mile section of U.S. 69.

U.S. 66 signs started disappearing from Texas highways in 1985, when citizens heard they would be removed. The signs were sent to Austin for public auction. An original U.S. 66 sign in good condition can bring about \$1,200.

The first "Don't Mess with Texas" TV commercial featuring guitarist Stevie Ray Vaughan aired Jan. 1, 1986, during the Cotton Bowl. Since then, TxDOT has produced 33 TV and 26 radio spots.

In 1986, the Amarillo District spent \$446,865.11 on snow and ice removal and freeze damage.

The State Department of Highways and Public Transportation was renamed the Texas Department of Transportation in 1991.

Exterior restoration of the Hill County courthouse was the first project in the State Transportation Enhancement Program to go to contract. Work began in January 1995 and finished two years later.

The Texas Railroad Commission's motor carrier regulatory functions were transferred to TxDOT in 1995.

In fiscal 1996, 456,701 over-size/overweight permits were issued.

There are 1,600 landing facilities in Texas.

More than 60,000 pounds of wildflower seed is planted along Texas highways every year.

The largest single contract ever let was for \$105,538,994 to rebuild a section of U.S. 75 (North Central Expressway) in the Dallas District.

Don't Mess with Texas bumper stickers have been spotted on vehicles across the United States and as far away as Russia and Germany.

There are 111 rest areas and 804 picnic areas on Texas highways.

Texas has 61 miles of toll roads.

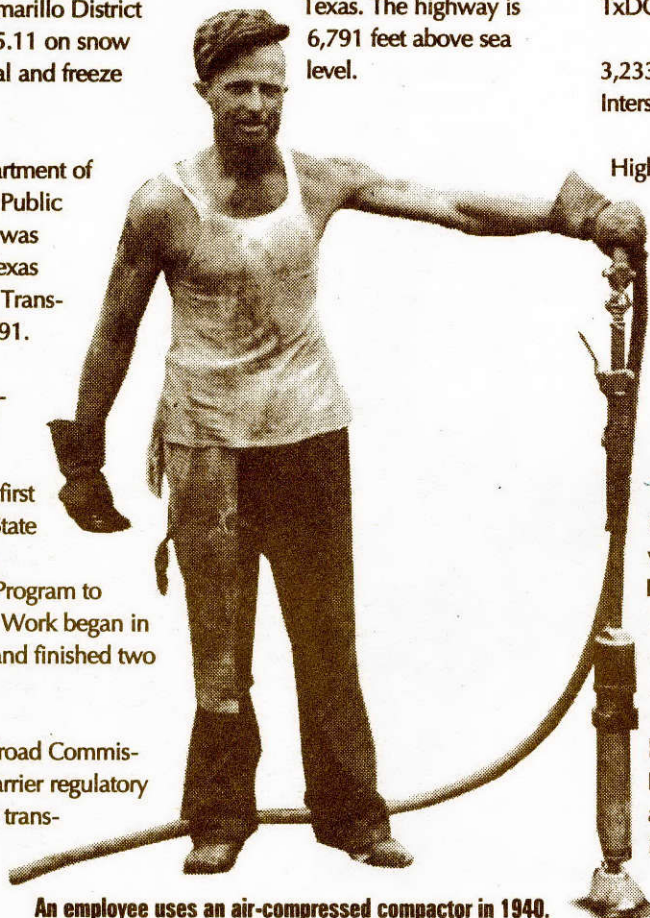
The department's 10 ferries carried approximately 4,100,000 vehicles in fiscal '97.

Fourteen department employees — including four active employees — have earned at least 45 years state service time.

The Gulf Intracoastal Waterway is 423 miles long in Texas.

There are 48,140 bridges statewide.

The highest state-maintained highway is a spur from Texas 118 leading to the McDonal observatory on Mount Locke in West Texas. The highway is 6,791 feet above sea level.



An employee uses an air-compressed compactor in 1940.

4,307 Adopt-a-Highway volunteer groups pick up litter along 9,043 miles of roadway.

About 1.6 million gallons of paint is used for striping white and yellow highway lines every year.

Part of the Old San Antonio Road between Midway and College Station is the only state-maintained highway without a number. The road originally extended from Nacogdoches to San Antonio.

The tallest bridge is the Rainbow Bridge (Texas 87) near Port Arthur. It has 177 feet of clearance between the water and bridge.

Loop 168 in downtown Tenaha in Shelby County is the shortest Texas highway. The road is 0.074 miles long, or about 391 feet.

The longest highway in Texas is U.S. 83, which extends from the Oklahoma state line near Perryton, to the Mexico border at Brownsville. It is 899 miles long.

The Atlanta District is the only district that touches three other states — Oklahoma, Arkansas and Louisiana.

Since 1977, 9,129 employees have retired from the department.

About 1,190,000 dead animals a year are picked up by TxDOT employees on state-maintained roads.

About 5,300 TxDOT employees have a commercial driver's license.

TxDOT owns 457 snow plows.

3,233 miles of the 45,000-mile Interstate system are in Texas.

Highway routes with odd numbers run north and south; even-numbered routes run east and west.

Department employee Richard Oliver designed the Interstate highway route marker.

The first definite route of travel established in Texas was made in 1715, when St. Denis led an expedition from San Juan Bautista (near present Eagle Pass) through San Antonio to Nacogdoches and eastward. This road was later known as El Camino Real and still later to Texans as the Old San Antonio Road.★

80th anniversary calendar of events

Oct. 13 — The Transportation Conference Awards Banquet will be held on the Texas A&M campus at 5:30 p.m.

Oct. 14-15 — The theme of Transportation Conference is "80 Years of Service the TxDOT Way." This year's conference will feature an exhibit about department history and the Innovation Showcase. Also, a reception room for retirees will be open Oct. 13-14.

Oct. 22 — Open houses statewide will not only give the department a chance to highlight its history, but also will provide the public with a glimpse of present operations, programs and projects.

Nov. 5 — A ceremony will be held to dedicate a historical marker for the Greer Building, and to unveil a memorial plaque honoring department employees who were killed on the job at 3 p.m. at the Greer Building.

Nov. 5 — Greer Building guided tours will be held at 9 a.m., 10:30 a.m., 1:30 p.m. and 3:45 p.m.

Nov. 5 — The Associated General Contractors and Texas Good Roads Association are co-hosting an 80th anniversary banquet at the Austin Convention Center at 5:30 p.m. All employees and retirees as well as the contracting community are invited to attend.★

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