

TxD
#1473.6 T682n 14:7

NON-CIRCULATING

TEXAS STATE
DOCUMENTS COLLECTION

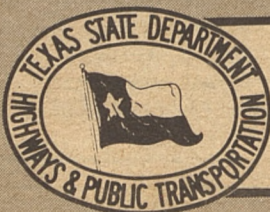


Department closes Interstate chapter

See story, pages 8-9

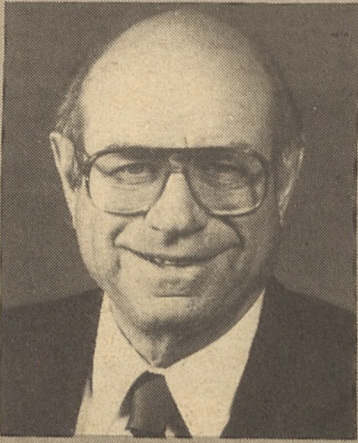
Photo by Geoff Appold

TRANSPORTATION news



Leadership Texas taps Bryant, p. 3
Conversation with J. L. Beard, pp. 4-5
Rock climbing keeps Head in clouds, p. 12

March 1989



This month I would like to use this space to applaud the efforts of employees who once again acted above and beyond the call of duty. I am referring to all those who helped out during the two recent ice storms that frosted parts of the state.

Just as Texas was beginning to recover from February's icy assault, another arctic blast hit the state, icing many miles of highways and bringing traffic to a virtual standstill.

And once again, our people rose to the occasion.

Figures from the latest onslaught are not yet available, but records show that 4,000 department employees put in overtime during the February storm, keeping maintenance activities going around the clock. Approximately 80,000 cubic yards of sand and aggregate and 12,500 fifty-pound sacks of salt were spread on roads to keep traffic moving.

District offices and the Travel and Information Division answered questions from more than 90,000 travelers between Feb. 4 and 7.

The Arctic struck again on the first weekend in March. Crews were sent from Wichita County to help with the cleanup along Interstate 35 north of Dallas, where weather and construction had conspired to strand an estimated 900 vehicles.

In a construction area near Denton on Saturday, March 5, ice accumulated on I-35 to a depth of several inches. It was topped on Sunday by a layer of snow deep enough to cover the concrete barrier walls that had already reduced traffic to one lane in each direction.

In the Dallas District, three bladders were called out Sunday to clear snow, and six were on the roads Monday and Tuesday. All told, the district used 400 cubic yards of ice material plus 19,440 pounds of salt to keep roadways passable.

South of Dallas, Interstate 20 was closed for more than five hours on that first March Sunday, after a truck hit a sign bridge column. Crews had to take the truck apart to remove it, and then the damaged sign bridge had to be taken down. It took crews two hours just to set up the crane that was needed to work on the accident.

Three lanes of the eastbound side of I-20 were blocked the next day when a trailer carrying a load of new cars overturned in the same area. And that was just one of several tractor-trailer accidents on I-20 that day.

Through it all, our people kept their heads and their sense of humor. These folks who do what they have to do, and don't gripe about it, show that they put the safety of the motoring public first. They do us all proud.

Raymond Stotzer
Engineer-Director

Plan looks 20 years down road

The highway department's Strategic Mobility Plan, outlining the long-range transportation needs of the state, was approved by the highway commission at its February meeting.

The plan projects that \$82.6 billion (in 1988 dollars) will be needed to maintain and improve mobility in Texas through 2009. Of the total requirement, \$78.2 billion, or 94.7 percent, is planned for the highway system itself. If current funding levels continue, about 63 percent of these needs can be met.

The plan outlines what needs to be done but does not specify what construction should be undertaken.

"The Strategic Mobility Plan is the second element in our integrated planning process," said Marcus Yancey, deputy director for planning and policy. "The top-level document, the Strategic Plan, sets overall goals and strategies. The mobility plan looks at what will be necessary to achieve them, in money, equipment, and buildings. Other

planning documents down the line become narrower in focus and specify individual projects," he explained.

The Strategic Mobility Plan is broken down into four five-year periods, each with projected fiscal requirements. The requirements of the 1990-1994 period are not expected to be met completely because they include a backlog of work created mostly by current urban traffic demands.

"Although these requirements are real, we will probably have to accomplish them over a longer period of time than we'd like to see," Yancey said.

Department planners believe the document reflects a conservative estimate of Texas transportation needs. For example, the population projection used (an increase of five million by 2009) is a low-end one. Also, costs were figured using Texas averages, which are lower than national averages. ***Gina McAskill**

Texas tourism plan okayed by commission

When it comes to tourism, Texas has literally gotten its act together.

Through the years, seven state agencies have developed specific programs to promote tourism. Coordination of their activities, however, was minimal. Now, with the creation of the Texas State Agency Tourism Council and its Strategic Travel and Tourism Plan, the Lone Star State is on the leading edge of marketing for the multibillion-dollar travel and tourism industry.

The state's new tourism plan includes such strategies as extensive market research, a national advertising campaign, participation in national and international trade shows, and comprehensive programs for presenting an appealing image of Texas to the media.

The highway commission approved the plan in its January meeting.

The highway department, assisted by first lady Rita Clements, took a lead role in bringing together the agencies involved in tourism.

"Our role seemed appropriate, given our

more than half a century of experience in tourism," said Don Clark, director of the Travel and Information Division and chairman of the ad hoc committee that formed the council. "Back in 1935, when Texas was gearing up to celebrate its centennial, the Legislature gave us the task of setting up welcome huts to greet visitors who would come to Texas' birthday party.

These first Texas Tourist Bureaus proved successful, and they remain one of our primary means of directing tourists to their destinations." The highway commission's action names Clark as the department's representative on the newly formed council.

Other member agencies of the tourism group include the Texas Department of Commerce, Texas Parks and Wildlife Department, Texas Historical Commission, Texas Department of Agriculture, Department of Public Safety, and Texas A&M University's Recreation and Parks Department. ***John Cagle**

Traffic light coordination gets boost

Texas motorists will spend less time waiting for lights to change because of a new program to be administered by the highway department.

The Traffic Light Synchronization Program, approved by the Governor's Energy Management Center and the U.S. Department of Energy, will allow the state highway department to distribute \$5.2 million in oil overcharge funds to local city governments. "It's a way to repay the people who were charged too much, namely the motorists," said Carlos Lopez, designing traffic engineer for the highway department.

The department will work with the Governor's Energy Management Center to request proposals from cities, select projects, and ensure equitable funding for both urban and rural communities.

"We want to implement new signal timing plans and replace outdated equipment," Lopez said. The program's goal is to reduce unnecessary vehicle stops and delays through

improved signal timing. This should result in significant fuel savings and a reduction in vehicle emissions, he said.

"Almost any signal is eligible. It can be on a city street or on a state highway," Lopez said. "But the signal must be part of a coordinated system of signals — not an isolated one."

Lopez said only cities may submit proposals for program funds. Fifty percent of the funding will be spent in the eight Texas cities with populations greater than 200,000. Cities with 50,000 to 200,000 people will receive 25 percent of the funds; the remaining 25 percent will go to cities with populations less than 50,000.

"This program is not a unique use of oil overcharge funds," said Lopez. "Other states have implemented similar signal retiming programs, and they've had a great deal of success. Through our program, we hope to lay the groundwork for future retiming projects at the local level." ***Karen LeFevre**

Leadership Texas fuels Bryant's 'engine'

By Rosemary Neff

"Be nice" seems like an odd exhortation to give superachieving women in this age of power wardrobes and executive ambitions.

But it was one piece of advice that the department's Susan Bryant gleaned from her first session of Leadership Texas, a six-weekend program that offers selected women from around the state a unique blend of information and inspiration.

Bryant, manager of the traffic safety group in the Safety and Maintenance Operations Division, extracted some key "rules to live by" from the remarks of federal magistrate Judith Guthrie.

"I've already passed these out to everybody in my office," she said, presenting a 'BE NICE' list that begins: "Please return your phone calls." Other watchwords are "Learn to say no," "Be on time," and "Learn people's names." Another: "Smile. People who have to look at you will feel better."

The point of all this pleantry? Women don't have to mold themselves into the stereotype of the nail-spitting male executive to earn respect.

"When Judith took office, people expected her to be hard," Bryant said. "The first thing she did was take out all the overstuffed leather and put in comfortable fabric furniture. She got gourmet coffee. And then she painted her office pink. It was a statement."

Like Guthrie, many of the women selected for Leadership Texas have already made statements of their own. Those chosen for the program must have "demonstrated proven leadership ability," the Leadership Texas brochure says. Applicants are screened on their work experience, educational background, volunteer or community contributions, and awards or other recognitions.

The program can afford to be selective. Of more than 170 applicants for this year's class, only 84 were chosen.

Bryant's \$2,800 tuition for the program is provided by the department, which sponsored her application and will pay her travel expenses for the six weekends. The selection process began with nominations from division directors and district engineers. The 20 nominees were assessed on a matrix that evaluated how they met Leadership Texas criteria, and three names were submitted to the program. Diane Williams of the Division of Automation and Melissa Neeley of the Highway Design Division were the other department finalists.



While Leadership Texas restricts participation to one person from each agency, "they didn't have to take any of our candidates," said Linda Beene, the department's director of training.

Beene suggested that women who want to be considered next year "start building a resume now" to submit to their division head or district engineer. Work experience is important, but Leadership Texas also looks at a candidate's contributions in other spheres, Beene said.

While Bryant feels honored that she was chosen by Leadership Texas, "it is even more of a privilege to be the department's representative," she said. She is grateful to Catherine Sims of the Planning and Policy Division, who "broke the ice" with her participation in Leadership Texas last year.

"I've been with the department a long time, 11-1/2 years in traffic safety," Bryant said in explaining why she thinks she was selected. "I've just completed the MBA (master of business administration) program, and that shows my commitment to continuing education. I have gained some recognition nationally (receiving the "Award for Public Service" from the U.S. Department of Transportation). And I did public relations work for UNICEF and teach Sunday school." That combination, the mother of

two young daughters feels, makes her the well-rounded person that Leadership Texas seeks.

"They don't necessarily look for someone who is a Stephen Hawking in physics — a genius," Bryant said.

Her colleagues in the Class of '89, she said, "aren't superwomen. They're humans; they're people. We have a lot in common: We have kids, we have dogs, we have cars that won't start, we have runs in our stockings when we're late to important meetings. Those are the ties that bind."

Among the participants this year are a fifth-grade teacher, a literacy advocate, the executive director of a brain-injury program, a political campaign manager, several information directors, and a police sergeant. The class also includes a retired music teacher, an Indian activist, a caterer, a university vice president, a judge, a professor of obstetrics and gynecology, and the mayor of Kyle.

"These are people already in prominent positions," Bryant said, "but now they've set their goals even higher. And now they have more resources."

When she began considering the Leadership Texas program, Bryant said, "it seemed so selfish. But after just the first meeting, I'm confident that the department is going to gain a lot. We, as a department, are a service organization, and making contacts and networking enhances that. can point people in the right direction, help them through the maze."

At the San Antonio meeting, for instance, she made friends with the former mayor of Lewisville, who expressed interest in the department's safety activities, and a woman from the Rio Grande Valley interested in the Project Celebration program that encourages chemical-free parties.

That first meeting focused on the peoples and cultures of Texas. The March session, in Houston, will concentrate on "the powers of Texas," including business, medicine, the space program, and "the power of women." Upcoming weekends in other cities will feature arts and education, the lands of Texas, economy, and government.

Leadership Texas describes itself as "a community of talented women who desire intellectual, professional, and personal motivation and stimulation" through "continued sharing of experiences and ideas."

Bryant calls it "basic human development." Its goals are "much less clear than if I wanted a realtor's license because I want to sell houses. What it does is introduce you to perspectives and understanding.

"It's not the rocket," she said. "It's the engine and the fuel." ★

Blood fund ready for more donations

Lots of Texas banks are in the red these days, but the Central Texas Regional Blood Center is one that wants to stay that way.

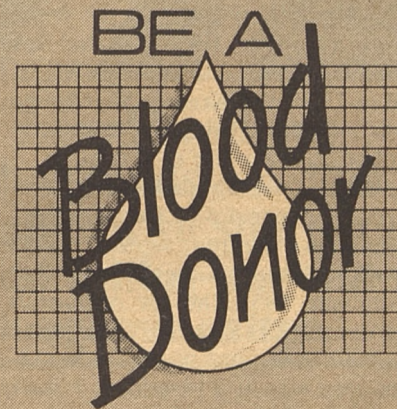
As sole supplier for 23 hospitals in 11 Central Texas counties, the blood bank must find 37,000 donors in 1989 to supply up to 60,000 units of blood.

Highway department employees in Austin can help meet that demand, and at the same time benefit from participation in an organizational blood donor fund. The fund is

available to any employees or immediate family members who need blood, whether they have contributed to the fund or not.

To replenish the fund, the Employees Advisory Committee has scheduled its annual blood drive for Austin employees. The blood center's mobile unit will be at La Costa on May 2, Camp Hubbard on May 3, and the Dewitt C. Greer Building on May 4.

Districts that do not have their own blood fund may get information about starting one from EAC members Rudy Rivera, Highway Design Division, Tex-An 258-8118, or Cynthia Gonzales, Construction Division, 255-8869.★



Beaird's career ranges from lab to Lufkin leadership



From doughnut maker to combat photographer to chemist, J. L. Beaird took an unusual route to his destination as Lufkin district engineer.

A conversation with . . . Lufkin District Engineer J. L. Beaird

Most of J. L. Beaird's 35-year department career has been spent in the nine-county Lufkin District of East Texas. From his entry as a semiskilled laborer, he advanced to Angelina County resident engineer, senior laboratory engineer, and district construction engineer before becoming district engineer in 1975. In 1984, he was named Engineer of the Year by the Pineywoods chapter of the Texas Society of Professional Engineers. Beaird discusses his career and his life outside the department with Marcy Goodfleisch of the Travel and Information Division.

You started out as a chemist, and put yourself through school. What led you to change your career path and return to college for another degree?

Working and going to school at Stephen F. Austin University to get degrees in chemistry and math, I worked part-time with a wholesale magazine agency. When I graduated in 1950, the Korean War broke out. I went into the service as a combat photographer, and the life of a combat photographer is about three minutes. Any time you saw a news clip of the parachute troopers making a landing, someone had to be there before them taking their picture.

After the war, 1953, the age of plastics was being developed. The field of chemistry left me behind then, and the economy in our immediate area was in a recession. I started to work with the highway department as the

result of my former scoutmaster, C.T. Currie, who was the chief accountant at the time. I started to work in the warehouse, counting nuts and bolts and things of this sort.

While I was working in the warehouse, I ran into the resident engineer there in the coffee shop. He said, "I understand you've got a degree in math," and he invited me to see what they did in the residency. So after a year at the warehouse, I transferred over to the residency and got involved in survey work, drafting, and inspecting construction.

But then one real hot, sunny, sunny day I was out checking gravel, dusty and dirty, and decided that in order to do any good with a highway department career you needed an engineering degree. I decided to go back to school. When I went to see the resident engineer about it, he said, "I've been wondering how long it would take before you realized that." The University of Texas utilized more of the courses that I'd already taken and would require the least number of hours to get a degree in civil engineering; and there were more job opportunities with the department in Austin than there were in the districts. So I transferred to Austin and went to work in the paint section of the Materials and Tests Division, making use of my degree in chemistry. I worked half-time; I was able to help with paint formulation and testing the materials that go into paint. But my primary job was cleaning up, washing equipment, waxing the floors, cleaning the windows and things of that sort. In order to ensure my job I kept everything picked up and cleaned and hidden. That's good job security. The people that I worked with out there really enjoyed that time, and we had a close camaraderie.

In February of '57 I graduated from the University of Texas, transferred back to Lufkin, and got married all within 10 days.

You returned to Lufkin, then, in time for the Interstate system, and you happen to be in the one district that has no Interstate.

That's right. At one time, Lufkin and Del Rio were the only two districts that did not have Interstates, and they eliminated Del Rio. I don't know if that's a premonition of what they're going to do with Lufkin, but our district is the only one that does not have an Interstate at this time.

There are, however, some unique challenges in the Lufkin area, aren't there?

Our biggest challenge is the adverse climate and large volumes of traffic with heavy loads, and the worst thing is inadequate materials to construct roads. I've told people that the only thing we have as far as roadbuilding materials are clay balls and pine cones. And when you get to thinking about it, if you take the pine cones and get them hot enough you can convert the clay into synthetic aggregate. So that is a possibility. Chemically, you could take pine trees and reduce it down to coal tar and use that as an asphalt. But it would take a lot of trees!

Laboratory work has been a big part of your career. Can you tell us about the role you see lab work plays in managing a highway program?

I think the lab plays an important role within a district's organization. It enables you to provide training for some of the young engineers; it gives them a chance to develop as a manager or a supervisor, and it's a training tool. People working in the laboratory usually cover all aspects of the department — the design phase, construction, and maintenance. In the design you work with initial surveys and make studies of the materials that you'll use and also the route selection. You get into bridge foundations as well. Then you work with the designers, and they take your data and design a road. Laboratory personnel also monitor materials that go into construction of the roadway. And then after it's complete and the road is under traffic, they're able to evaluate how the pavement performs. It may be that they made some bad guesses earlier in the planning stage. It gives them time to reevaluate those original estimates, fine-tune their guesses, and rehabilitate the section of the roadway.

One of my role models used to say the first base failure following construction is a design failure, which is acceptable because you might not have had all the information to develop a good pavement design. But the second failure that occurs on that road is a maintenance failure, and he would not tolerate that.

This all leads to the department's new Pavement Management System, which covers a wider scope than what we're doing in the laboratories, because we're going to bring in accident data, we're going to analyze traffic situations, the economy, and different flexible pavement designs. It'll be real interesting.

Is this what's happening in the area of research that you chair?

It was originally, but they changed the Area III functions (Ed Note: See February 1989 *Transportation News*.) We'll be looking at geometric design, and safety, and some other aspects. But pavement design has been

transferred over to the Area II research committee just within the last month or so. But that's where it really should be because you've got materials, construction, and maintenance under one umbrella and then also pavement design as well.

You have 13 years as a district engineer and 28 years of district work as an engineer. What are the accomplishments that you're most satisfied with, most proud of?

Just to be a part of the highway system as it has developed. Back during the early days, even though Lufkin is not part of the Interstate system, we were a part of the growth of the highway system that has evolved from the Interstate system. It's meant a lot to me to see that growth and to be a part of the fellowship that has been generated within the department during that time. The highway department really is a close-knit family when you get to thinking about it. Over in East Texas we are as concerned about the development of highways in the Panhandle or over in El Paso or down in the Valley. They all relate to the same kind of progress.

What about your personal accomplishments? Tell us a little about "hot sand" and your efforts in pioneering the plant-mix seal.

Mr. (J. M.) York (then district engineer) came in one day in the laboratory and said we needed to develop a good, cheap base. We've got a lot of sand over here and he said there's no reason why we couldn't use it more effectively. So we started working with hot-sand asphalt. We just adapted to it. Sand is either wind-blown or deposited by water, and sand deposits have different grain sizes because that's the way they settle. What we found is that you had to blend sands together so that you get better density and are able to add asphalt to it and go from there. It has worked out; we've had some successes and we've also had some boo-boos.

And the plant-mix seal?

We were interested in trying to see if it would work. They had already started some work over in Louisiana, and we wanted to adapt it here in Texas as well. In order to put down a test section we went to Mr. (Mark) Goode (then Lufkin district engineer) three times before he finally approved it. And even then he said he would approve it only if I had two maintainers in the area so that if it didn't work we would scrape it off the road. However, it did work.

To the layman, plant-mix seal can be described as asphalt and rock mixed together and just placed down on the roadway, mixed at the plant rather than the usual seal coat. A better description would be asphaltic concrete with all the sand removed.

So with these two processes, hot sand and plant-mix seal, you go all the way from one end of the spectrum to the other.

You started with nothing but sand and asphalt. Then, as a token, you'd throw in a few rocks, oversize material, and you'd get a low-grade asphalt concrete. Throw in a few more rocks or chips and you get asphaltic concrete, which is a better-wearing surface. Throw in some more aggregate and take out some sand and then you get on up to a high-skid-resistant concrete pavement. Then finally you eliminate all the sand, then you have nothing but plant-mix seal. Besides its skid resistance, it reduces the tendency of the car to hydroplane. It also eliminates the spray from coming up behind a truck or car as it moves down the road. Finally, another benefit is that it sounds quieter than any other type pavement.

One real hot, sunny, sunny day I was out checking gravel, dusty and dirty, and decided that in order to do any good with a highway department career you needed an engineering degree.

What major goals have you set for the district in terms of management direction?

Because we are a small district, we try to use the resources available to us to their maximum effectiveness. One of our main goals is to make sure that our principal arterial, US 59, is maintained in a high level of service. A lot of our other roads have not been addressed as we feel they should be. After US 59, we'll begin to be able to take care of those problems as well.

What is your approach to personnel management?

I try to delegate all that I can to different levels and make sure they have the authority and responsibility to function. They need to realize they do have that responsibility and will be accountable for their actions at that level, but at the same time I know that people do make mistakes and get into problems. Then I try to pick that person up, dust him off, pat him on the back and say, "Get back in there." That's my philosophy. Most problems are not all that dark because I feel that if you look hard enough, you can always find a little humor in the situation.

Something unique about Lufkin is that you've birthed two engineer-directors, at least. What would you say is the reason for that?

I don't know, but it has just happened. I was fortunate to have worked for both of them — Mark Goode and B. L. DeBerry.

Now Mr. DeBerry lives in Lufkin. What's it like to have a former engineer-director on your doorstep?

No problem. He's just a real close friend, absolutely. He was a big help in promoting passage of the Good Roads Amendment.

You have two children — any grandchildren?

No grandchildren. Mark is at Baylor Medical School. He just completed all of his academics and he'll go into his clinicals on rotation. Another 2 1/2 years at Baylor and he'll take up his residency. Hopefully then after the residency he'll be a full-fledged doctor. Mark has one distinction not too many people are aware of — he's also a pilot, and during some touch-and-go landings one time he actually killed a deer with an airplane!

My daughter, Carrie, is at East Texas State University in Commerce, where she works with the Baptist Student Union as an associate director.

What are your hobbies?

I like to read a lot, and I do some stamp collecting. I've collected them 30 years. I have no prizes, but I've got an interest in United States and Australian stamps. I also read a lot of ACs (administrative circulars),

AOs (administrative orders), and serve on committees, ha ha.

What's your favorite book, or the latest one?

I read a lot of things — a western, a detective story, historical novel, current events. Then I start over again.

What are your goals — you recently turned some unnamed age . . .

Sure did, three score, on Dec. 4.

So what are your goals between now and whatever you might see as the end of your career with the department?

The thing I want to do as much as anything is to assure adequate training and opportunities to the younger members of our staff so that they will be able to fill in any opportunities that might be made available to them.

You grew up in Lufkin, and your parents still live here. They were bakers?

They ran a bakery shop; my brother and I were raised in a bakery shop. In high school days we used to have to make the doughnuts before we'd go off to school, wrap cakes — yeah, I could roll out doughnuts on this table. I've still got the old rolling pin and the doughnut cutter. If things get too bad I've still got the formula.

In the Lufkin District, they bought the bakery ovens and use them in the lab, and then they also bake in 'em, make cobbler all the time.

You should have seen me when I made wedding cakes and birthday cakes. I still can.



I could roll out doughnuts on this table. I've still got the old rolling pin and the doughnut cutter.

Photos by Geoff Appold

Colossal tourist comes to Texas

By Karen LeFevre

You don't usually think of Waskom, Texas, as a port of entry for North African nobility. But around noon on Feb. 11, a 3,000-year-old Egyptian pharaoh crossed the state line.

He didn't travel on an ornate litter or a barge, nor did he ride in a chariot. He came aboard three Mayflower flatbed tractor-trailers and stopped briefly at a Texas tourist bureau. Instead of being flanked by royal troops, he was escorted by state troopers, Dallas police, and private security officers throughout the 900-mile trek from Charlotte, N.C., to Dallas.

Ramses the Great arrived in the form of a 27-foot, 51.5-ton granite statue. The monumental sculpture, carved from a single block of stone, is only one of hundreds of portraits the great king commissioned during his 66-year reign.

Now in three sections, the "Colossus of Memphis" is reassembled at each tour site. It is the centerpiece of an exhibit expected to attract about a million visitors to Fair Park from March 5 to Aug. 27.

The exhibit's other 74 artifacts — including a mummy, funerary objects of gold and other precious materials, and the world's first clock — traveled via jet Feb. 13 to the Dallas Naval Air Station.

But the massive figure that once guarded a sacred temple rolled across the Texas-Louisiana border at 11:40 a.m. on Feb. 11. The Louisiana State Police then relinquished security responsibilities to the Texas Department of Public Safety.

After a brief ceremony signifying the "changing of the guard," the caravan took off toward Dallas along Interstate 20.

Melissa Heard, manager of the Waskom tourist bureau, said the exhibit coordinators wanted to keep the Colossus' crossing top secret. "But the local paper (*The Marshall News Messenger*) got wind of it and they were here taking pictures," she said.

It's no wonder that transporting the likeness of the last great pharaoh of Egypt became a media event. The exhibit has already attracted three million viewers to museums throughout the country during the past three years. Host cities included Memphis, Tenn. (named for the capital of

ancient Egypt); Denver; Provo, Utah; Boston; Jacksonville, Fla.; and Charlotte. The six-month Texas segment of its sojourn, sponsored by the Dallas Museum of Natural History Association, will end the North American tour.

The Colossus and other artifacts are currently insured for \$35 million, but it's impossible to estimate the real worth of these antiquities. For that reason, such artworks usually are not allowed to leave their home countries.

Travel is seen by insurance agents, curators, and government officials alike as a great risk. In this case, Egyptian authorities wouldn't let the Colossus travel at all until permits through each state were secured, said Stan Wilson, a supervisor in the highway department's Central Permit Operation. That unit of the Maintenance and Operations Division regulates movement of overweight and oversize loads on Texas highways.

In all, two nations, five U.S. states, a city police force, two Texas state agencies, and three highway department districts were involved in the Ramses shipment.

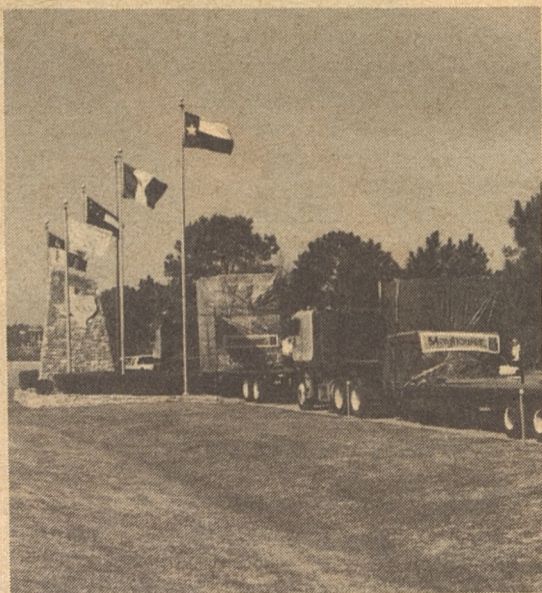
"It's unusual for a district engineer to call us about a permit," Wilson said. "But Arnold Oliver (Dallas district engineer) called personally on Feb. 7 and said we needed to issue a permit that day, if possible. He had already talked with the DEs from the Atlanta and Tyler districts and had gotten clearance.

"Only one truck required a special permit," Wilson said. "That was the one carrying the heaviest part of the statue. The others were legal-size loads." By Egyptian tradition, each section had to be transported in an upright position.

The department issued a permit on Feb. 8 for the truck in which the king's lower legs and feet were riding. This vehicle was legal width at 8 feet 6 inches, but it was 14 feet 9 inches high and 60 feet long. And it weighed 87,000 pounds.

How much did the pharaoh pay for his "ticket" from Waskom to Dallas? A colossal \$20.

Ramses II certainly couldn't complain about the price of his trip, nor about a rough road. Not when Texans rolled out the smooth gray carpet for him. That's royal treatment. ★



No royal chariot but a tractor-trailer convoy brought Ramses the Great to Texas in February. Carried in three segments, the pharaoh's statue entered the state through the Texas Tourist Bureau at Waskom. (Photo by Melissa Heard)

April 1 Trash-Off will be biggest ever

By Gina McAskill

On April 1, thousands of trash-pickin' "fools" will comb Texas roadsides. All they'll get out of it is a few laughs — and the knowledge that they have been a part of the nation's biggest litter cleanup.

Last year's Great Texas Trash-Off bagged about 1.7 million gallons of litter, picked up by 23,468 volunteers from 1,289 Adopt-a-Highway groups. The fourth annual Trash-Off will attract members of most of the 3,100 groups currently operating.

The event is coordinated by the Travel and Information Division and Austin's GSD&M Advertising, the "Don't Mess with Texas" agency. Letters and reply forms inviting organizations to participate were mailed in January. On Trash-Off afternoon, operators at "Trash-Off Central" will take calls from groups about their experiences during the cleanup, and afterward adopters

will return cards reporting how many people picked up how much trash.

Several teams of highway department employees around the state will join civic, social, religious, and other organizations on their two-mile stretches of highway. When adopters sign their contracts, they are asked to make the spring Trash-Off one of their four cleanups during the year. Most come through, and have a good time to boot — they meet for a meal before or after the cleanup, greet passersby, and discover odd or amusing discards on the roadside.

Volunteer groups will be exhorted to new enthusiasm with the debut of an Adopt-a-Highway newsletter in March before the Trash-Off. The Travel and Information Division will produce the newsletter regularly to share information among the thousands of volunteers and the department.

As in 1988, Maryland Club Coffee is again donating 65,000 large trash bags for the Trash-Off. ★

Sweetwater serious about weather

By Ray Green

... adverse weather, Sweetwater, Texas
 ... 8:05 a.m., Nolan County Maintenance Office
 ... Telephone rings

"Good morning, State Department of Highways and Public Transportation."

"Hello, Ann," replies Don King, correspondent for KXOX Radio in Sweetwater. "Can you give me a road condition report?"

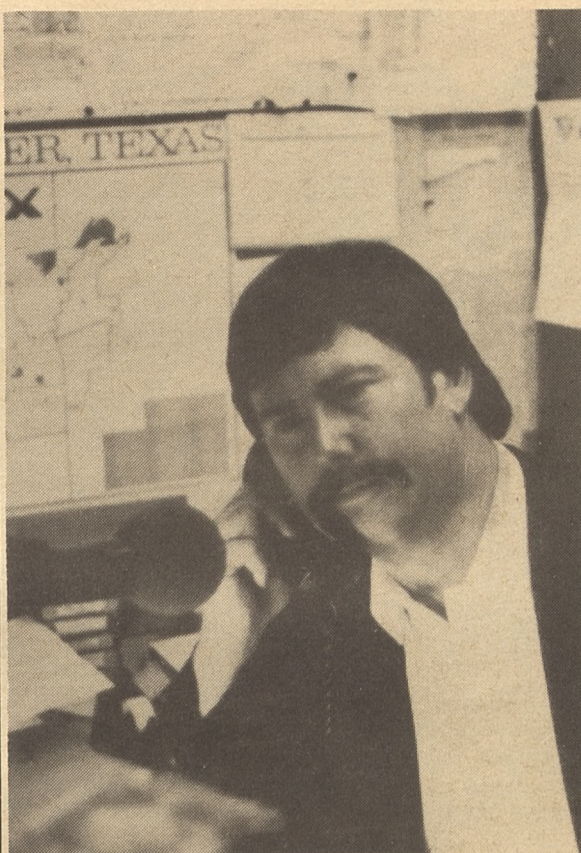
"Sure," answers Ann Wyatt, office manager at the Sweetwater maintenance section.

"Good. You're live — go ahead!"

And so it has gone for the past three years, several times a day during adverse weather. Wyatt's voice is heard every 30 minutes by KXOX listeners as she gives road condition updates.

"This is public information at its very best," said Abilene District Engineer William Burnett. "We wouldn't have better coverage if we owned a radio station."

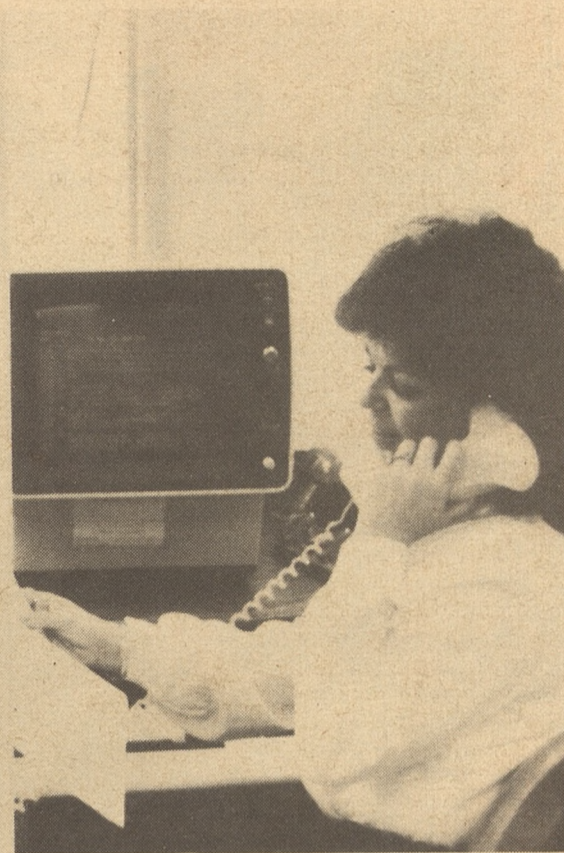
Wyatt's reports of road conditions and highway department activities date back to April 1986. She had worked for the department only a few weeks before the infamous tornado that ripped through Sweetwater that spring. Don King, 20-year veteran of radio and television, was pressed into service in the tornado aftermath to exercise his experience in public emergency



Radio reporter Don King, left, and Ann Wyatt of the Sweetwater residency form to keep local residents alert to road conditions. (Photo by Ray Green)

communications. In the almost unbelievable havoc, they met.

Wyatt, as a new employee, was immediately baptized into the public's need for information, particularly during emergencies. At the same time, she was introduced to the information power the department possesses through computerized road condition reports (RCR), Public Information Coordinator (PIC), and other tools.



All these elements came together when she met King, a reporter with a keen desire to keep the public informed of emergency situations. King says, "We feel that our primary concern, that of serving the public, is especially well served through the department's system and provides the best, most modern service to the public today."

The 14,000 vehicles that pass Ann's office on Interstate 20 each day agree with King. So do Sweetwater residents.★

UMTA funds granted for drug model

Small urban and rural transit providers will get the highway department's help in complying with federal drug control regulations.

The U.S. Department of Transportation regulations, requiring transit providers to establish drug control programs within two years, pose special problems for smaller operators.

The Urban Mass Transportation Administration granted the highway department \$150,000 to develop a model program that could be used by mass transit operators in communities with populations less than 200,000. The department is matching the grant with \$20,000 in state funds.

Margot Massey, grant manager of the highway department's Public Transportation Division, said the focus is on smaller systems because most metropolitan authorities had policies in place before the federal regulations were issued on Nov. 21, 1988.

"These companies have money to fund employee assistance and rehabilitation programs, which are usually part of the employee benefits package," she said.

"Small transit systems in cities like Waco and San Angelo don't have as much money because they don't have sales tax authority dedicated to mass transit," she said. "And for rural systems, the situation is even more critical. Rural public transportation is expensive by nature because population density is so low."

The federal regulations apply only to people in safety-sensitive jobs, such as drivers and maintenance workers. While pre-employment, post-accident, and

return-to-duty testing have met with little criticism, there are concerns regarding reasonable-cause and random testing, according to Massey.

The grant funds "will be used mainly for a consultant contract to develop a model program and identify legal pitfalls for policy-makers," Massey said. "The consultant selected will be required to work closely with the small transit operators to ensure that the program is both practical and a real benefit to them."

In addition to developing policies for drug control and procedures for actual drug testing, the program will also provide training for employees who perform safety-sensitive functions.

"We're trying to provide a basic framework that will comply with the regulations and save the individual systems the time and expense of doing this on their own," Massey said.

★Karen LeFevre

Austin-San Antonio route moves closer to reality

The highway commission has taken new steps toward developing an alternate highway route between Austin and San Antonio.

The route would use US 183 southward from Texas 71 near Bergstrom Air Force Base to near Mendoza, then follow a new location southwestward to Interstate 10 near Seguin, and run along I-10 into San Antonio.

The commission tied construction of the new location to similar development of the Texas 130 (Mokan) freeway on the east side of Austin. Texas 130 would extend from US 183 northward to join I-35 north of Georgetown.

The Austin-to-San Antonio route is the subject of a feasibility study ordered by the commission at the request of the Greater Austin-San Antonio Corridor Council in 1986. The council, which represents cities and counties along the corridor, is seeking an alternate route to I-35 between the two cities. The study reported favorably on the proposal.

In its January meeting, the commission said it would proceed with project development if Caldwell and Guadalupe counties agree to provide 50 percent of the cost of right-of-way for the 34-mile-long new location. The counties also were asked to pay 10 percent of the cost of moving utility lines.

If the counties accept the offer, the highway department would designate the new route as part of the state highway system and plan it as a controlled-access highway.

The commission's order stopped short of authorizing right-of-way acquisition or construction. It said these would depend on the authorization of right-of-way acquisition or construction of the proposed freeway in the Texas 130 corridor in Travis County.

The proposed new location would be developed in accordance with federal regulations. Financing would be considered on the basis of cost effectiveness, availability of funds, and statewide priorities. ★Hilton Hagan



Cold, cloudy weather didn't dampen the enthusiasm of local officials and department representatives at the ribbon cutting for the last section of Interstate 20 in Texas. On hand for the Jan. 29 ceremony were, from left, Dallas District Engineer Arnold Oliver; Engineer-Director Raymond Stotzer; Pam Holliday, mayor of Balch Springs; Neil Wooley, mayor of Segoville; highway commission Chairman Robert Dedman; Don Cates, mayor of Forney; and Don Lindsey, mayor of Terrell. (Photo by Geoff Appold)

End of an era

Interstate construction culminates on I-20

By Harvie Jordan, ABC

When the last segment of Interstate 20 in Texas, just east of Dallas, was opened in January, it signaled the close of the Interstate highway construction era in Texas.

While the final curtain hasn't fallen on the 30-year drama, the last act is well under way. A short section of I-635 around Dallas is still to be built. And work is in progress to complete the final section of I-27 stretching north to south across Lubbock.

Interstate highway construction nationwide is scheduled to be finished in 1991. But there is an increasing roar from the crowd for an encore to add to the Interstate system as attention turns to maintaining and reconstructing what's already in place.

Cold winds caused elected officials and local residents to shiver as they gathered under an overcast sky Jan. 27 for ribbon-cutting ceremonies to open the new section of I-20. Those 19 miles of highway follow a new route from south of Terrell to the juncture of I-20 and I-635 in Balch Springs.

Ribbon-cutting rites were held midway between the ends of the new highway section.

"People often overlook how much safer it is to drive on highways than in 1956," when Congress passed legislation creating the Interstate highway system, Engineer-Director Raymond Stotzer told the crowd. He credited "highways like this" with contributing to marked decreases in traffic deaths.

This section of I-20 was opened 17 years and three days after the Federal Highway Administration approved its construction. The \$136 million cost of construction, right-of-way, and utility adjustments was less than the price tag for constructing additional lanes on the former I-20/US 80 route. Construction along a new route also meant no disruption for the traveling public.

More than 43,000 miles of Interstate highways link 90 percent of the nation's cities of more than 50,000 population. It's only one percent of the country's highway network, but 21 percent of U.S. highway travel is on this system.

Two wars affected the start of the Interstate highway system.

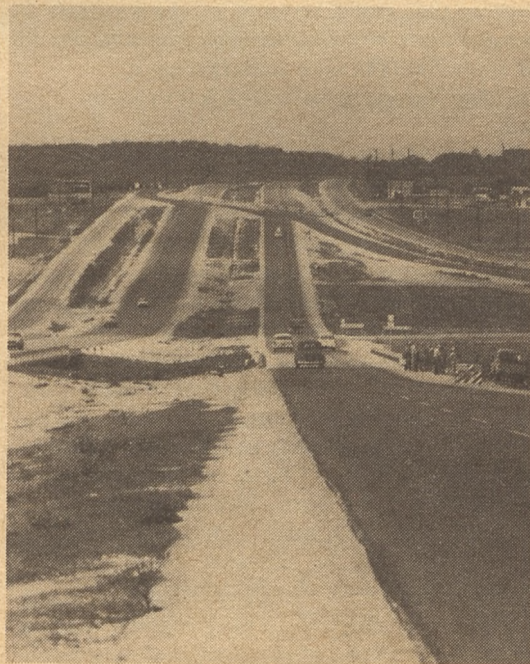
Transportation: The Nation's Lifelines points out that in the interest of national security, the federal government moved to upgrade selected federal-aid highways on the heels of World War II.

"Congress in 1944 directed the selection and improvement to higher-than-normal standards of a 'National System of Interstate Highways' not exceeding 40,000 miles in extent. This system was to be 'so located as to connect by routes, as direct as practicable, the principal metropolitan areas, cities, and industrial centers, to serve the national defense, and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico.'"

The 1957 book, published by the Department of Defense, says highway

upgrading moved slowly until after the Korean War.

In the interests of both national defense and the economy, "The prompt modernization of the Interstate system was made 'one of the most important objectives' of the Federal-Aid Highway Act of 1956. By this act Congress expressed its intent that the Interstate system be constructed as nearly as practicable over a 13-year period."



I-35 (US 81) at the "Randolph Field cut-off" in San Antonio as it looked in the mid-1950s. (Travel and Information Division Photo)

It was an ambitious goal. Although the deadline wasn't met, the resulting highway system has proven to be 2-1/2 times safer than conventional roads.

Joe Battle, El Paso district engineer, remembers that the Interstate program brought a new responsibility to the highway department in Texas.

"That was when we got into the right-of-way business. Until then, it was up to the local government to get the right-of-way," Battle said.

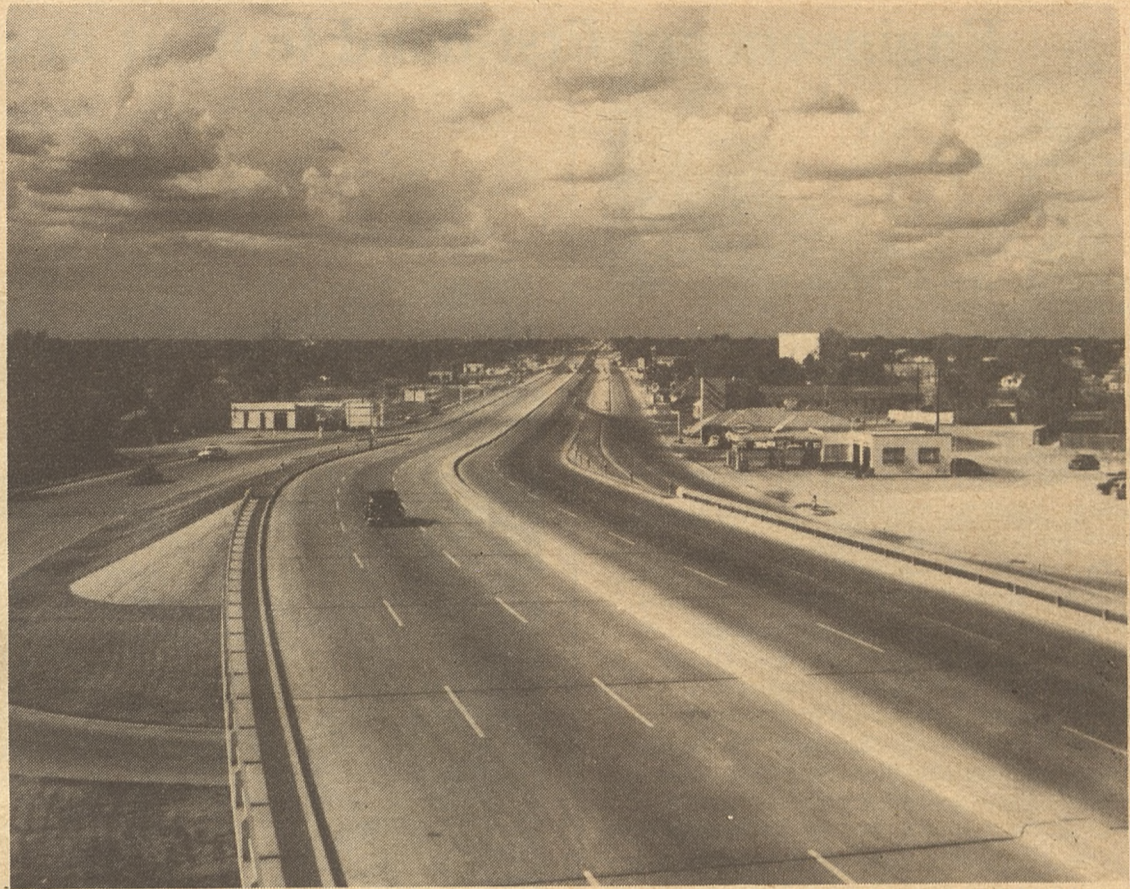
Travelers in Texas enjoy 3,000 miles of Interstate highways. Although construction is scheduled to end in a couple of years, Texans say our state needs many more miles of Interstate.

This consensus came into sharp focus in last year's Transportation 2020 public forums and statewide public opinion survey.

A final report, *The Texas Experience*, summarized the results of the fact-finding project.

It said the Interstate highway system doesn't fully meet current needs partly because, since the system was first planned, "population centers have shifted, or have developed in areas not foreseen by the original planners, and now many major urban areas are without the services of this network."

Former engineer-director Mark Goode, for



More than the 1950s-vintage cars have changed on this stretch of I-35 (US 81) in Waco. Development has changed the roadside scene. Note the "Humble" sign.



instance, testified at the forums that the network should be expanded to "bring into the system the larger population centers" and to build the system gaps that occurred because of mileage limitations established in the original Interstate program.

General mobility is one reason the Interstate system might be expanded. But economic development is the overriding concern in such requests.

There were numerous suggestions offered for new or extended routes at the six Transportation 2020 public forums:

- north-south route between Dallas and Jackson, Miss.;
- A southward extension of I-27 through San Angelo to I-10;
- Houston to Corpus Christi;
- Corpus Christi southward to Brownsville;
- Brownsville along the border to connect with I-10 at Fort Stockton;
- Houston to Texarkana;
- Amarillo to Fort Worth; and
- Shreveport, La., to Kansas City, Kan., through Texarkana.

If Congress doesn't give new life to Interstate highway construction, one alternative is to upgrade some existing highways. This idea suggests improving existing links between population centers by increasing their capacity for car and truck traffic.

In either scenario, the existing Interstate system must be maintained and reconstructed.

Construction, reconstruction, and maintenance will compete for funding. And funding was another major concern expressed in Transportation 2020 forums and questionnaires.

There was justification from all sections of the state for more spending for special projects. But, with not enough dollars for all the needed projects, Texans will have to wait to see whether Interstate highway construction gets a curtain call.★

←
Traffic is light on a November morning in 1966 on I-37 in Corpus Christi. (Travel and Information Division Photo)

Engineers get first-hand look at design, construction

By Gina McAskill

Misunderstanding and tension between headquarters and field offices is an age-old problem, one that began with the first empires and armies. The widely scattered highway department doesn't escape the phenomenon.

Pronouncements and procedures produced at headquarters can seem senseless to those in the field, and district operations can appear sloppy or misguided to those looking down from the "ivory tower."

Several divisions address these and other problems through programs that send main office people out to the districts or vice versa. The Construction, Highway Design, Finance, and Travel and Information divisions currently offer such crosstraining.

The most extensive programs are those that give young engineers field experience. Highway Design sends a few engineering assistants at a time to the Austin District for a year, where they spend eight months in design and four months on a construction site. In the Construction Division, participants generally spend six months in construction, six months in a district design section, and three months in other divisions.

"I feel more competent to do my job," said Dawn Vose, a field engineer in Construction (D-6). Field engineers assist people in the field as well as reviewing plans changes and checking contract bids.

Vose is one of two employees who have completed the program. She worked in the San Antonio District, and her experiences included construction inspection on the "Sea World" road (Texas 151), a stint in the laboratory, five weeks on a survey crew, and responsibility for the upgrade of a secondary road.

"I didn't think I could do the things they let me do," Vose said.

Vose stayed with relatives in San Antonio and returned to Austin on weekends. However, most people move to the district for their six-month stints. According to individual preferences and district needs, the D-6 engineers can work in any district except Austin.

One reason for having a formal training program is the large number of young engineers now working for the department as a result of a wave of retirements a few years ago. Another is the increased construction that started about the same time. New engineers must take on more responsibility sooner than in the past.

"I feel a lot more confidence in talking about construction, because I actually saw it and did a whole design," Vose said. "Seeing and inspecting the construction, you get to see plans come to life.

"The amount of work accomplished in the districts is amazing. This program helps people understand what districts and divisions do," she said. Meeting people face-to-face instead of just dealing with them on a paper or telephone basis is good, "and it's good for the district because they get extra help free," Vose noted.

The division continues to pay engineers' salaries while they are out of the office. In the Construction Division, 11 people are now in some phase of the program, and one-fourth to one-half of the field engineering section is gone at any one time.

Such staffing hardship has sunk one division's program for the time being. Several



Lisa Grose of the Highway Design Division works with Mike Palmer of the South Travis County residency on a "slump test," which determines the amount of moisture in concrete. (Photo by Kevin Stillman)

years ago, the Maintenance and Operations Division sent one traffic engineer at a time to a district. But the program was discontinued because of the work load in the office, according to Ernest Kanak, safety and traffic operations engineer.

"We couldn't spare a whole person all the time," Kanak said. He said crosstraining is not critical right now, because most of the younger engineers already have some experience, but there are plans to restart the program when staffing levels make it possible.

In Highway Design (D-8), crosstraining has been around for many years on an as-needed basis, said Joe Denton, training coordinator for the division. "An engineer can't adequately review plans without knowing what happens in real life," he said.

In the last two or three years, D-8 has had more need for a set training program to accelerate experience for young employees. The division tries never to have more than one engineer from each of three field areas out at a time.

Lisa Grose, an engineering assistant, returned from her year in the field Feb. 1. She spent eight months in design in the South Travis County residency, where she designed a turn lane in Dripping Springs and worked extensively on Ranch-to-Market Road 3235. She then spent four months on the site of the south Loop 1 extension in Austin.

"The design part was valuable because in the division I had not had the benefit of seeing a project from start to finish, from right-of-way on," she said.

Grose said working in design and construction phases showed her what happens to plans both before and after they pass through the Highway Design Division. "A lot of things come up in construction that you don't realize from just looking at the design," she said.

Other divisions conduct crosstraining on a smaller scale. The Travel and Information Division has just started a program that sends information officers to various district

headquarters for a week, where they assist the public affairs officer and learn about district operations. Public affairs officers, in turn, are scheduled to work at the main office for a week to become familiar with what the division does.

In D-6, Construction Engineer Bob Templeton has issued a standing invitation to district personnel to visit Austin. "A lot of folks who work a lifetime for the department never come to Austin," he said.

A group of Wichita Falls employees took up Templeton's suggestion last summer — in fact, district construction engineer Rodger Clements made it one of his management-by-objective goals. Most of the workers who came for the three-day visit were from residencies, said Helen Thompson, a member of the group and Clements' secretary.

"It was to give us an idea of what happens to things we send to Austin, to see the full cycle of paperwork," she said. "Everyone just bent over backwards to be nice, to see that we learned something and got to have a good time, too."

Stan Petty, director of data processing for D-6, helped arrange tours through several divisions and a visit to top administrators. "The paperwork that they submit to us — when it leaves their hands, they lose it. They never see faces," he explained. Thompson echoed that when she noted, "It's good to be able to picture people you talk to on the phone; it improves relations.

"Even though we had this planned in advance, we learned stuff we weren't really out to learn," she said. "I would recommend it to other districts, because it helps morale."

The Finance Division (154) has a more formal program that has been in place since late 1985. So far, (D-3) people, most from districts and a few from divisions, have participated in the three-day familiarization.

"One district requested a tour for some new hires, and then word of mouth spread about how valuable it was," said Joel Davis, director of accounting. "People realized it

Continued on page 11

*Automation Expo '88***Houston meets new tools hands-on**

By Sally Swanson

Researchers have long agreed that the best way for people to learn is by doing.

Innovative automation personnel in Houston put that axiom to good use recently, when they premiered Automation Expo '88 on Dec. 8 and 9.

The program was designed as a show-and-tell forum of the new automated equipment that the Houston District will be receiving in the next few months.

All district staff, resident engineers, and payroll supervisors were invited to attend the debut presentation Dec. 8, with the encore the next day open to other employees.

As participants entered the transformed conference room, they were greeted with a printout of their current automated equipment as well as projected fiscal year '88 and '89 procurements. Armed with that information, they knew which areas of the presentation applied to them.

Computerized artwork guided participants through the room, as they individually visited booths to learn about the available capabilities.

At one location, they learned about the Houston Regional Center, housed at District 12 and serving both the Houston and Beaumont districts. Its two computer systems, IBM and VAX, allow users to access basic functions as well as design graphics. The new Statistical Analysis System (SAS) brings high-quality, color graphs and

The next learning station was more familiar to many.

There, personal computers (PCs) were laid out in all their glory from the original procurement of 1985 to the future purchase of the IBM PS2.

"Microcomputers have progressed quite a bit," said Tonya Talje, microcomputer coordinator for the district. "The original models are antiquated in comparison to the new PS2s. The computing speed, size of the unit, screen resolution, and overall capabilities have improved."

As part of the PC display, the new laser printers were demonstrated. The soft hum of the machine was barely audible for the few seconds of printing time, yet a letter-quality document came gliding out of the top.

Not only the PCs have been upgraded; the Telex mainframe terminals have come a long way, too. The new machines are much smaller than their ancestors. Laser printers have also revolutionized mainframe printing, producing 10 letter-quality pages per minute.

At another table, the spectacular, \$91 million, cable-stayed Baytown Bridge compressed and rotated as part of the Intergraph display. The quality of the computerized image delighted Dennis Warren, resident engineer on the project. He manipulated the image from the completed bridge design to the structural details.

At the final stop, the district's family of plotters was displayed.

The new electrostatic, color plotter can plot a graphic 200 percent faster than the older model. This plotter produced the high-quality posters that decorated the conference room.



Johnny Folkes, chief purchaser in the Houston District, gets acquainted with new tools of the trade at Automation Expo '88.

The residencies will receive their 1023 Calcomp pen-plotters in the upcoming procurements to complement their expanded design capabilities. This type of plotter automatically minimizes the number of pen "strokes" necessary to compose the graphic.

Every participant had the opportunity to work with the new equipment as well as to watch demonstrations by department and vendor personnel.

"This was the first time the resident engineers and other supervisors were able to see and, more importantly, use the new automated engineering equipment," said Joe Rogerson, district automation administrator. "Managers who use the new technology can improve their employees' effectiveness by 100 percent."

More than 275 employees attended Automation Expo '88. Its success reflects teamwork by area vendors, district maintenance personnel Steve Bounds, Lamont Sauer, Mike Murphy, and Glen Long, and the Automation Division's C. R. Dansby and Bill Caffey. ★

Crosstraining

Continued from page 10

charts to the district. David Ash, a district programming expert, recently mastered the 12-volume instruction manual. By request, he will produce a chart or graph to suit any employee's needs.

could be good for any employee. We also realized that people in our own division could use it, so they would know more than just about their own little section," Davis said.

"We don't teach them how to process vouchers or what have you, but about what happens to them when they get here," Davis said. "The goal is to familiarize people with the complete financial operation of the department."

Angela McCasland, an accounting clerk in the Atlanta District, visited D-3 last August. She said the small group — only two in her case — allowed a lot of personal attention and give-and-take. "Everyone was real willing to help," McCasland said. She said that the familiarization was valuable because in processing paperwork, "you sit here and you do it and you don't realize what all comes out of it."

Participants visit each section, and the time spent in each is relative to the time district personnel spend on the same area in their jobs. Davis emphasizes that the experience is "an exchange of information, not a class or lecture." He noted that both districts and the division have altered procedures slightly when, through these exchanges, one finds it isn't meeting the needs of the other.

Whether the purpose is to get vital experience for an engineer's certificate, or just to find out how the other half lives, participants agree that crosstraining is well worth the effort. ★

Love lavished on lookout

By Laura Rayburn-White

First-time visitors to Love's Lookout roadside park may be awed by the majestic view of the East Texas countryside. But it wasn't long ago that this park on US 69 north of Jacksonville was the scene of chaos and destruction.

Love's Lookout was in the path of the tornado that ravaged East Texas more than a year ago. The park, almost destroyed, was closed to the public during repairs. Awnings over the picnic tables were blown off and had to be replaced. High winds had peeled paint off most of the structures, so everything had to be repainted. But worst of all was the loss of most of the park's trees.



Before the tornado, Love's Lookout had been shaded by many grand old trees. After the storm, they lay bent and broken, with limbs scattered across the park. A total of 66 trees had to be cut down during the park cleanup, and many more were trimmed back in hopes that they might survive and put out new growth.

Eldon McCurley, Jacksonville maintenance supervisor, oversaw the landscaping of the park so that today it is a veritable arboretum. Native plants like redbud, portulaca (moss rose), blooming pears, red oaks, and Texas wildflowers have been planted. For variety, other plants such as California redbud, Chinese tallow, Japanese boxwood, quince, red-tipped photinia, wax-leaf lagustrum, forsythia, jasmine, oleander, euronimus, and Australian winter peas promise year-round color. New sidewalks, security lights, and water fountains have been installed. The picnic area designed for handicapped travelers has been located near restrooms and water fountains for easy access.

Thanks to the care and hard work of the Jacksonville maintenance section, there are few signs today of the catastrophe that ravaged the park. ★

Love's Lookout wasn't much to look at after a tornado damaged more than 60 trees. The park has been lovingly restored. (Photo by Laura Rayburn-White)

El Paso engineer: 'Tanks' for the memories

By John Cagle

David Head likes to get high. No, the El Paso engineer's not a dooper. His kick is in scaling mountains. Head got the climbing addiction back in the '70s when he was attending the University of Texas. He began by scaling Austin-area outcroppings. When that lost its punch, he climbed more unusual structures — the Waller Creek bridge near the university, and then Austin's historic Congress Avenue bridge over Town Lake. Later, he and several buddies decided that a nighttime climb up the State Capitol building would be a unique challenge. "We didn't get very far up the structure before several policemen showed up and ran us off," said Head.

Head's college days are behind him; he's no longer looking to shake hands with the Goddess of Liberty. And instead of climbing bridges, now he's building them.

After receiving his bachelor of science degree in civil engineering in 1982, Head joined the highway department. The 30-year-old engineer is currently working on the North/South Freeway project (US 54) at the El Paso residency.

But he still has the climbing bug, and he's become an authority on Hueco (pronounced "Waco") Tanks, the 450-foot-high rocks located in a state park named for them 30 miles east of El Paso.

Head's reached the summit of many noteworthy mountains in the western United States. He's climbed El Capitan and Half Dome in California, and scaled the Diamond on Colorado's Long Peak — the biggest high-altitude wall in North America. He's even been a director for a mountaineering company. But the Tanks still present his biggest kick.

"Hueco Tanks has been called one of the greatest climbing areas in the world," Head said. "Most of the top climbers have been out here, too. Like Ron Kauk, John Bachar, Patrick Edlinger, Henry Barber, and Yvon Chouinard." Names unfamiliar to those of us more committed to terra firma, but household to those who love to climb. One might call them "rock stars."

Which brings to mind the cover of a recent record album featuring rock singer David Lee Roth climbing the rock wall of El Capitan. There's also a video that features the group hanging on the side of the mountain. Are they for real, or is it just hype?

Head laughed. "They were in El Paso a while back," he said. "They had a concert in town, and the next day they drove out to



David Head's interest in rock climbing has not yet peaked. The El Paso engineer, an expert at scaling Hueco Tanks, is on the lookout for new challenges.

Hueco Tanks to climb. It was really funny. They showed up in this enormous Winnebago, and they got out in sequined suits and wild hairstyles. But they did climb. They didn't exactly have the greatest technique in the world, but they were out there."

Head, along with his brother Mike and fellow climber James Crump, coauthored a book on climbing the Tanks. The book, *Indian Heights*, is out of print, but has become a collector's item among climbers. "When it was first printed," Head said, "it went for around \$10. Now, I hear of copies showing up in various parts of the world, and people are asking \$20 or \$30 for it." At the time *Indian Heights* was being written, Hueco Tanks had not been discovered by the climbing world. So Head and his coauthors had the task of giving names to hundreds of routes up the Tanks.

Like the explorers of old, rock climbers name the various routes up a particular mountain. The first person to climb a route gets to name it. And with so many mountains and so many routes, it would seem that names would either get used over and over, or become very creative. Because rock climbers are such individualists, it's the latter. Names like "Body Snatcher," "King of Suede," "Brand New Cadillac," "Dogfight Giggle," and "Weasels Ripped My Flesh,

Side 1" don't raise eyebrows among climbers. When the fellows began naming the routes for Hueco Tanks, they got quite imaginative. Head says that some of the names they came up with are, ahem, unprintable in *Transportation News*.

Head's now working on a new book about the Tanks. He's also founder of the El Paso Climbers Club, a new organization of 25 to 30 people with various levels of expertise in climbing. The group is preparing a proposal to the Parks and Wildlife Department for controlling climbers at Hueco. The proposal, probably the first of its kind in the country, suggests limitations on the use of bolts, and recommends certain areas of climbing. Head also recently prepared for the first rock-climbing competition in Texas on March 5. At Hueco Tanks, of course.

Would the El Paso engineer like to tackle what many consider the ultimate climb — Mount Everest? "Everest is a different type of climb. I like what's called 'big wall' type climbing. Everest is mostly a walk."

What Head would like to see are some of the big walls in Europe. "The guys from Europe who've come here tell me Hueco Tanks is one of the greatest places they've experienced," he said. "I'd just like to see what the competition looks like." ★



Amarillo District maintenance technicians Paul Lowry, Alvis Clanton, Don Short, Wesley Cook, Gary Whatley and Mike Franzen, from left, were the first on the scene of a two-vehicle accident Jan. 25 at the intersection of US 54 and FM 767. Lowry and Clanton, who have received emergency medical training and gave first aid to one of the victims, were credited by the Hartley County Sheriff's Office with helping to save the victim's life. (Photo by Susan Stockett)

Tech Trade

Course cements understanding between contractors, inspectors

Editor's Note: Kathleen Jones, editor of the Transportation Planning Division's Technical Quarterly, attended the first of an innovative series of courses on asphalt paving. She wrote this personal account about the experience.

By Kathleen M. Jones

The first time I heard about the concept, I thought it was such a sound idea that I was surprised it hadn't been done before: Offer an asphalt pavement construction seminar for both inspectors and contractors. The two groups would get the same information at the same time and be encouraged to actively discuss and debate hot-mix practicalities.

The concept took shape as a 36-hour seminar called "Hot Mix Asphalt Construction Training Program: Plant and Paver Operations," the first of a series of similar courses. It resulted from cooperation between the highway department and the Texas Hot Mix Association.

"The objective was to close the gap between department and contractor personnel by providing an opportunity for both sides to interact," said Roger Welsch, deputy director for design and construction. The class is structured to encourage discussion, he added.

I learned that this innovative approach to getting contractors and district inspectors together is the culmination of four years' effort by Charlie Smoot of THMA. In the final stages of course development, Smoot got commitments to attend from 20 contractor participants across the state for each class in the series. The district engineers from the contractors' locales were invited to send inspection personnel to match the number of contractors.

"We wanted participants who were already working together on a project," explained Welsch.

I attended the first class, given Oct. 24 through 28. The second class was scheduled the following week. These proved so successful that a third was squeezed in before Christmas. Another in the seminar series, "Mix Design," a combination lab and lecture course, was tentatively scheduled for March.

Our instructors for "Plant and Paver Operations" made up a four-man team. Dr. Tom Kennedy of the Center for Transportation Research at the University of Texas and professional engineer Jim Scheroeman are both known internationally for asphalt studies. Lamar James and Nick Turnham are two long-time department



Instructor Lamar James, right, gives seminar participant Thomas Chapman some pointers on how to judge hot mix quality at a batch plant.

employees recognized for their practical knowledge and experience.

The course theme was "Uniformity + Experience + Cooperation = Quality." The seminar covered construction of asphalt pavements from stockpiling aggregates to final compaction. We took field trips to see batch and drum-mix plants and to examine laydown equipment.

As the course opened, the four instructors bantering lightly among themselves, eased us past the initial stages of nervous silence into full-scale participation.

In a typical session, Scheroeman challenged us, "Look at what you're seeing." Kennedy prodded us for logically consistent answers, while James called on his local contractor to help him explain a technical point. Turnham played devil's advocate for (and against) Texas standard specifications. By the fourth day, the seminar was a rollicking technical interaction, instead of a one-sided lecture.

I found myself joining in the discussions as

if I were one of the younger, less experienced (in my case, totally inexperienced) inspectors anxious to learn how to recognize and trace types of asphalt and aggregate to their sources in the paver wings, the haul truck, the surge bin, the silo, and the stockpile.

We were shown that profit motive and quality assurance don't have to be mutually exclusive goals of contractors and department personnel. The contractors explained that they want to lay down quality highways, but must make a profit to stay in business. Inspectors need to be knowledgeable and fair, allowing the contractor to do the job in ways that are most profitable as long as quality is not compromised and specifications are followed.

"Plant and Paver Operations" is the most useful seminar on asphalt concrete pavement I've been privileged to attend. It links theory to practical wisdom, to provide as comprehensive and up-to-date a picture of asphalt paving construction as anyone is likely to get in one week. ★



MARCH

21-22 Equal Employment Opportunity Training, Austin, D-13EEO

28-30 1989 Maintenance Conference, Austin, D-18M

28-30 Special Transit and Rural Transit Safety Program, Austin, D-11

29-30 Annual District Laboratory-Engineering Personnel Meeting, El Paso, D-9

28 Commission Hearing and Meeting, Austin

APRIL

4 Equal Employment Opportunity Training, Austin (CH), D-13EEO

5-7 National Electrical Manufacturers Association Traffic Signal Controller System, Wichita Falls, District 3

5-6 Equal Employment Opportunity Training, Austin, D-13EEO

6-7 Area I Research Advisory Committee Meeting, Brownsville, D-10R

10-13 Texas Travel Counselors Conference, Houston, D-16

11-12 Highway Construction Lettings, Austin, D-6

11-12 Administration of FHWA Planning Funds Course, Austin, D-10R

11-13 Arterial Analysis Package Training, Austin, D-18STO

17-18 District Engineers/Division Heads Meeting, Austin, File BCB

AWARDS

Service Awards

(January 31, 1989)

Automation

Clifford J. Powers, 30 years; John P. Derr, Milton F. Howard, Ronald L. Smith, 20 years; Jeff D. Hazard, Douglas P. Liberty, 15 years; Arthur V. Hernandez Jr., Robert D. Rodden, five years.

Bridge

Dennis R. Gudat, 25 years.

Equipment and Procurement

Elsie M. McDaniel, 25 years; Cullen D. Jaxson, David R. Sullivan, 15 years; Uvaldo G. Cantu, Tommy L. Miller, Silvio J. Romero, five years.

Finance

Winston H. Anderson, 30 years.

Highway Design

Willie O. Lindsey, 25 years; Fred D. Woodall, five years.

Maintenance and Operations

Rene U. Garza, Deborah W. Morris, Julie M. Shaw, Cherry M. Vest, five years.

Materials and Tests

Donald L. O'Connor, Charles D. Oman, Reginald W. Rogers Jr., 30 years; Nannie L. Moody, 25 years; Javier J. Vela, five years.

Motor Vehicles

James L. Keithley, 30 years; David J. Richter, 25 years; Doris B. Wilkinson, 20 years; Norma J. Peterson, 15 years; Kimberly B. Portillo, 10 years; Luz G. Devine, Melba M. Thompson, five years.

Occupational Safety

Joan M. Reichert, five years.

Public Transportation

Durwood T. Chapman, 20 years.

Right of Way

Robert M. Smith, 30 years; Michael D. Hill, five years.

Transportation Planning

Richard L. Tyler, Jacquelyn H. Ward, 20 years; James L. Randall, Nancy L. Ross, 10 years; Alfredo Marquez III, five years.

Paris District (1)

Don H. Eudy, Billy J. Hatchell, Gary L. Patterson, L. J. Sims, 25 years; Gary B. Mills, 20 years; Russell A. Lasater, 15 years; Mark W. Bates, James G. Clark, Scotty B. Humphrey, George A. Cooper, five years.

Fort Worth District (2)

Burton Clifton, 40 years; J. C. Norman, 30 years; Richard W. Alford, Vincent L. Hamilton, Garlan Holden, Louis R. Kraniak, Billy H. McLin, Elva O. Whitworth, 20 years; Kenneth S. Keck, Jimmy A. Rowe, 10 years; Roger A. Lamy, John R. Logan, Fred Reyes, Richard S. Williammee Jr., five years.

Wichita Falls District (3)

Jimmy L. Stacks, 30 years; Sammie J. Askins, 25 years; John M. Heltzel, 20 years.

Amarillo District (4)

James W. Burton, Jackie D. Carter, Robert Cervantes, 20 years; David M. Green, Ralph G. Stewart, Linda P. Tiner, five years.

Lubbock District (5)

Norma F. Gilbert, 30 years; Gary A. Dawson, 10 years; Douglas C. Christensen, five years.

Odessa District (6)

Joseph M. Mount, 30 years; Nicanor R. Milan, Gary M. Thomas, five years.

San Angelo District (7)

Gene M. Hirschfeld, 35 years; Jerry M. Fields, Toribio P. Mata, 20 years; Hector M. Zaragoza, 10 years.

Abilene District (8)

Stephen D. Bowen, Eddie L. Thane, 25 years; Jack A. Beeman, 20 years; George R. Larralde, 10 years; Robert G. Campbell, five years.

Waco District (9)

William H. Bradbury, 35 years; William J. Bartosh, 20 years; Inez H. Gaines, 10 years; Larry J. Colclasure, Cheryl W. Cook, five years.

Tyler District (10)

Eugenia P. Perry, 30 years; Patricia S. Gilmore, Dwayne E. Tyner, 10 years; Harold W. Bateman Jr., Marvin S. Furnish, Douglas W. Galloway, Bradley K. Gruetzner, Wynelle D. Richardson, five years.

Lufkin District

Mary W. Warren, 30 years; Jesse Hutto Jr., 10 years.

Houston District (12)

William R. Gillaspay III, Homer E. Rhoden, 25 years; Marjorie Y. Davis, Charles H. Kennerson, Charles D. Machart, Lewis L. Preston, Mary J. Richmond, Nancy C. Shaw, 20 years; Evangelina Puente, 15 years; Charles D. Davis, Rolando Hernandez, Sherry L. Randall, Igo Saule, 10 years; Brenno A. Battistoni, Donald L. Bunch, Margaret M. Cook, Richard L. Crouch, John C. Hoes, Larry D. King, Lila M. Kirk, Linda T. Newton, Leonard L. Segura, Rae T. Stowe, five years.

Yoakum District (13)

Gilbert E. Canik, August E. Popp, Arthur C. Von Minden II, 30 years; Clyde R. Froebel, 25 years; Robert C. Arlitt, 20 years; Patricia T. James, 10 years; Kenneth W. Anthony, David W. Clark, Glenn R. Eilert, Wesley E. Jasek, Ellis Williams Jr., five years.

Austin District (14)

Aubrey C. Cox, 40 years; Maurice G. Maluschka, 30 years; Arthur Koennecke Jr., Jerry V. Plevan, 25 years; Marvin L. Myers, Richard A. Wesson Jr., 20 years; John E. Jarosek, 10 years.

San Antonio District (15)

Danny Qualls, 30 years; Steve Jarzombek, Adolfo G. Leal, 25 years; John W. Bode, Donald J. Frye Jr., Jerry W. Schriewer, 20 years; James F. Keller, Francisco E. Ramirez, 10 years; Charles M. Gonzales, Edith S. Mason, Julio C. Moncivais, Willie

Sassenhagen Jr., Gregory S. Schwerdtfeger, five years.

Corpus Christi District (16)

Filberto Tagle, 30 years; Noel Ibarra, Robert E. Mapes, 10 years.

Bryan District (17)

Jimmy D. Anderson, Gene R. Schoppe, 30 years; James R. Hardy, Thomas L. Moehlman, 20 years.

Dallas District (18)

Richard C. Derryberry, 30 years; Rayford M. Novy, Beryl G. Osteen, Raymond L. Thomas, Billie H. Upchurch, 25 years; Keenan L. Boehme, John H. Dowell, Donny W. Mixon, Elaine W. Usrey, 20 years; Claud P. Elsom III, 15 years; Robert L. Bolden, Shirley M. Chambers, Edmond Flores, 10 years; Cleburne R. Haynes, Bonnie U. James, Lisa D. Lawson, Steve P. Lofton, five years.

Atlanta District (19)

Richard H. Tuck, 40 years; Ovid B. Evans, 25 years; Raymond E. McVay, 20 years; Susan B. Noble, Diane L. Venable, five years.

Beaumont District (20)

Bennie R. Marberry Sr., 30 years; Ferman C. Toups Jr., 25 years; Ivory Wilridge, 20 years; Julia H. Thompson, 10 years.

Pharr District (21)

Estanislao Carranza, Francisco G. Gonzalez, 35 years; Ramiro Hernandez, 25 years; Herlinda Dominguez, Faustino Ramirez, 20 years.

Brownwood District (23)

Wayne B. Jenkins, 30 years; Lizette C. Vavrina, 25 years; James C. Lester, 15 years; Billy A. Hudson, Robert T. Johnston, five years.

El Paso District (24)

Raymond B. Guerra Jr., 25 years; Carlos V. Chavez, Tommie McVay, 20 years; William McCabe, Higinio Salinas, 15 years; Guadalupe Romo, 10 years; Asgeir Asgeirsson, five years.

Childress District (25)

James D. Smith, 25 years; Larry N. Carrick, Maurice Farris, Ronald F. Hatcher, 20 years.



Jesse Gutierrez III, right, will be taking his family to Sea World in San Antonio, thanks to his perfect attendance at Ireland Magnet School in Ector County. The fifth-grader's dad, Jesse Gutierrez Jr., is maintenance foreman in Odessa.

In Memoriam

Employees:

James A. Brown, Wichita Falls District, four years service, died Jan. 22, 1989.

Luis M. Esquivel, Odessa District, 38 years service, died Nov. 17, 1988.

Pedro Martinez Jr., Pharr District, 36 years service, died Jan. 3, 1989.

Gerald O. McDonald, Lubbock District, 31 years service, died Dec. 21, 1988.

James R. Rakes, Houston District, four years service, died Dec. 30, 1988.

Manuel M. Riojaz, Odessa District, 37 years service, died Dec. 20, 1988.

Clarence F. Shaffer Jr., Wichita Falls District, 34 years service, died Jan. 18, 1989.

Retirees:

Eric F. Bartz, Georgetown, retired from Austin District in 1973, died Jan. 29, 1989.

Jack R. Berry, Lewisville, retired from Abilene District in 1976, died Nov. 15, 1988.

Paul L. Bowman, El Paso, retired from El Paso District in 1964, died Nov. 6, 1988.

Willye Cochran, Houston, retired from Yoakum District in 1963, died Jan. 17, 1989.

Harold G. Collins, Detroit, retired from Del Rio District in 1980, died Nov. 18, 1988.

Wasson E. Garrett, Dallas, retired from Waco District in 1961, died Dec. 15, 1988.

Charles E. Gaskin, Conroe, retired from Houston District in 1984, died Nov. 15, 1988.

Frank C. Goodman, London, retired from San Angelo District in 1980, died Dec. 6, 1988.

Thomas G. Hamrick, Hamilton, retired from Waco District in 1978, died Dec. 13, 1988.

Joe B. Heard, Ralls, retired from Lubbock District in 1972, died Nov. 30, 1988.

Raymond E. Heskett, McCamey, retired from Odessa District in 1987, died Nov. 11, 1988.

Neil G. Joyner, Houston, retired from Houston District in 1976, died Nov. 9, 1988.

Jarmon E. King, Wichita Falls, retired from Wichita Falls District in 1972, died Dec. 28, 1988.

Charles S. Lewis, Keller, retired from Fort Worth District in 1986, died Nov. 26, 1988.

Cater H. Lindsey, New Boston, retired from Atlanta District in 1974, died Jan. 16, 1989.

Luis L. Martinez, Sinton, retired from Corpus Christi District in 1982, died Nov. 4, 1988.

Cleo J. Merritt, Paris, retired from Paris District in 1975, died Jan. 25, 1989.

Curtis C. Parker, Belton, retired from Waco District in 1973, died Jan. 4, 1989.

Hobert F. Rackley, Cameron, retired from Bryan District, in 1976, died Jan. 11, 1989.

William L. Ross, Leander, retired from Equipment and Procurement Division in 1981, died Dec. 15, 1988.

James L. Stringer, Ben Wheeler, retired from Tyler District in 1971, died Dec. 22, 1988.

Pete Styner, Palestine, retired from Amarillo District in 1967, died Dec. 13, 1988.

Frieda L. Tanksley, Austin, retired from Division of Motor Vehicles in 1981, died Jan. 9, 1989.

Wilburn M. Teague, Moriartys, N.M., retired from Dallas District in 1979, died Dec. 13, 1988.

Charlie Terrasso, Hitchcock, retired from Houston District in 1972, died Nov. 7, 1988.

Daniel D. Tompkins, Dallas, retired from Houston District in 1973, died Nov. 18, 1988.

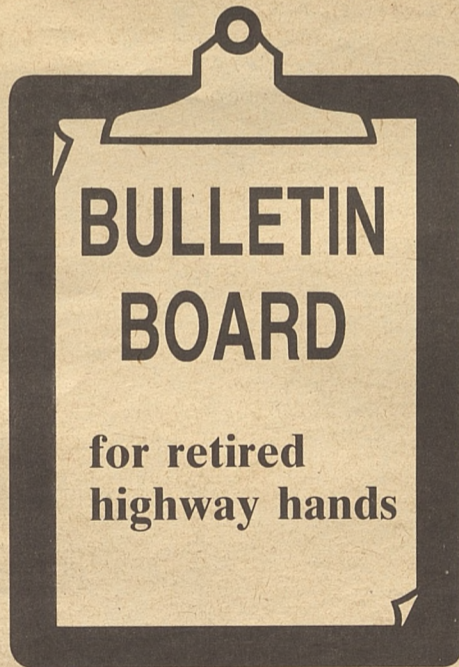
Sanford Webber, Plains, retired from Lubbock District in 1962, died Dec. 8, 1988.

Robert E. Whatley, Fort Worth, retired from Fort Worth District in 1988, died Nov. 19, 1988.

Ruth W. Zerm, San Antonio, retired from San Antonio District in 1972, died Dec. 17, 1988.

Gumecindo Zuniga, Pharr, retired from Pharr District in 1972, died Dec. 26, 1988.

***Compiled by Bernice Kissmann
Human Resources Division**



By R. S. "Bubba" Williamson Jr.

Spring and the planting season are upon us, but just as we suspected, no grass is growing under the feet of highway department retirees!

Wortham Loyd, who retired from the Scurry County maintenance shop in 1985, made the news recently for helping to save the life of a Sweetwater man. The victim was playing pool on Nov. 3 at a senior citizens center when he had a heart attack and fell to the floor. Loyd and another man



Wortham Loyd

administered cardiopulmonary resuscitation (CPR) and had the man breathing again by the time help arrived.

Loyd told the *Snyder Daily News* that he didn't feel like a hero, but credited his action to the CPR training he received during his 17 years with the highway department. "I feel like all the trouble and headaches I went through to learn CPR was worth it just to be able to save one life," he said.

Charlie Westbrook, former resident engineer in the Abilene District, has been traveling quite a bit. Germany, Austria, Alaska, Panama, Caribbean islands, and Scandinavian countries all have been on his itinerary. He's planning a trip to China this year.

Robert Cummings, formerly of the Fort Worth District, is certainly enjoying his retirement. This past year he has done maintenance on his house and outbuildings, raised a garden, built new purple martin

houses, constructed a brick patio, and worked on his "honey-do" list. Cummings and his wife, who live in Cleburne, are planning to travel in their new mini-motorhome.

I have had several people ask what I am doing. At the end of February, I completed my six-month tour with the Transportation Planning Division (D-10). I have been working on highway feasibility studies, and enjoyed visiting and talking to department people.

And, of course, I've been writing this column with a little help from my friends.

Some "highway hands" don't like to write, so I have been hearing from their better halves. Whether you're a retiree or married to one, I want to hear from you. Send your news to 3601 Vara Dr., Austin, TX 78754.



Daylight-saving time begins on April 2, 1989.

roadrunners



On my way to San Angelo early one morning after a winter storm had hit, I realized (and certainly not for the first time) how grateful I am to our Texas highway department, especially in West Texas.

While I'm warm and sleeping, they are out sanding the bridges. I appreciate this.

Also, last summer I had car trouble on the highway, and two very kind workers assisted me. I was frightened, and so glad to see them.

We Texans have the BEST and I'm proud!

**Sharon Braswell
Bronte**

Ms. Braswell's letter commends Jimmy Basquez and Michael Sepeda, who work in the Tom Green County maintenance section of the San Angelo District.

This letter is in response to what I call "recognition to an extra-miler."

On the evening of Nov. 16, our company was engaged in the transportation of a manufactured home from Navasota to Lockhart. During this process we had mechanical failure which necessitated leaving this unit blocking half the roadway.

This is where Willard J. Peavy enters the scenario. Since there was only one driver and no backup, it was impossible to handle the mechanical problem and traffic too. Mr. Peavy, at his own personal initiative and time, stopped and rendered assistance. He produced flares and flags to assist in the orderly, not to mention safe, movement of traffic. He spent several hours of his time to render aid not only to my driver but to the general population as well. These efforts should not go unrecognized. To Mr. Peavy go our thanks.

**Eric C. Myers
President,
B&H Mobile Homes
San Marcos**

Peavy, traffic recorder technician in the Transportation Planning Division, used "quick and excellent judgment in handling what could have been a very dangerous situation," according to division director Al Luedecke.

On Nov. 8, a few miles north of Temple on Interstate 35, I had a flat. I was on the

inside lane going south. After I unloaded some bags to get to the spare tire and the jack, a young man in a highway department pickup pulled up behind me and removed the flat, put on the spare, and told me where my flat could be repaired.

His name is Charles Lyles.

This is to express my great gratitude for his helpfulness and courtesy. I am not physically handicapped, but I am 74 years of age and it was hot.

**C. Rodney Sunday
Hunt**

Lyles, engineering aide for resident engineer Jim Cowan in Bell County, obviously doesn't mind helping people. This was the second letter the Waco District received about his assistance in two months.

Please accept my thanks for employing Joe Luna and his partner, whose name I do not know. On Nov. 1, I was transporting my RV north on highway 281, and had a flat tire. Mr. Luna and his companion assisted me in diverting traffic and changing the flat. Their help was totally unsolicited and extremely welcome. They were very courteous, quick to respond, and very helpful.

I am very grateful to Mr. Luna and his companion. It is nice to know when you are stuck in the middle of nowhere, people will take the time to stop and help.

**Ray T. Holland
McAllen**

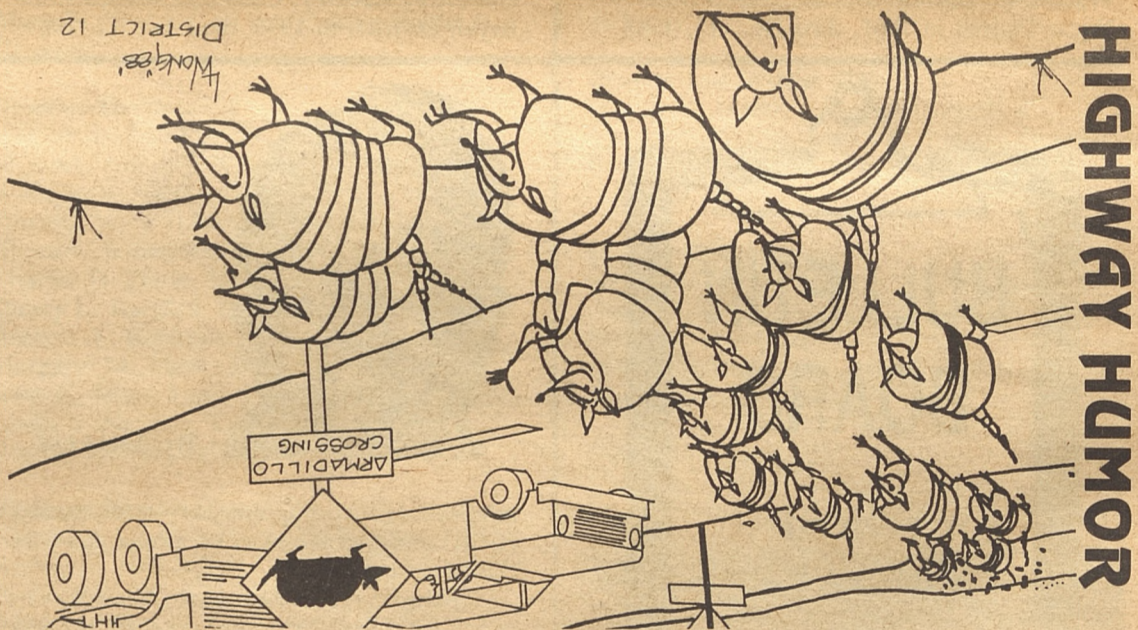
Maintenance technicians Luna and Rick Sendejo work in the traffic light section of the Pharr District.

ON OUR COVER
Engineer-Director Raymond Stotzer shares a moment with Dallas District inspectors after the ribbon-cutting ceremony that opened Texas' last major section of new Interstate highway. Chatting with Stotzer are, from left, Rusty Walker, Keith MacNamara, Gary Swindle, and Kent McCraw. With the completion of I-20 between Terrell and Dallas, the Interstate construction era comes to an end in Texas. (Photo by Geoff Appold)

A newsletter published monthly by the Travel and Information Division of the State Department of Highways and Public Transportation, at 11th and Brazos Streets, Austin, Texas 78701-2483.
Manscripts, photos, news tips invited. Send submissions to above address or telephone the editor at (512) 463-8612 or Tex-Ah 255-8612.
Editor Rosemary Neff
Associate Editors Jeff Carmack
Gina McAskill

Volume 14 Number 7

TRANSPORTATION NEWS



BULK RATE
U. S. POSTAGE PAID
AUSTIN, TEXAS
PERMIT NO. 2209

ADDRESS CORRECTION REQUESTED
RETURNED POSTAGE GUARANTEED

TRANSPORTATION NEWS
P.O. Box 5064
Austin, Texas 78763