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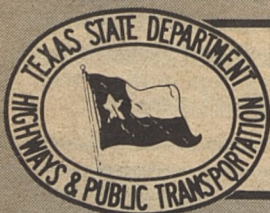
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TRANSPORTATION news



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March 1988

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Stotzer has 'enjoyed every assignment'

A conversation with . . . Engineer-Director Raymond Stotzer

After your 18 months as the department's chief, what do you see as your major accomplishments?

The appointments that we've made to key positions in the organization. I think we've been successful in finding outstanding people for the district engineer and division head positions that have opened up. I have nothing but good feelings about the people who are handling those assignments.

I expect the most important single thing that a person in this job ever does is the selection of people to play lead roles in various areas of the state and the Austin divisions. They establish the working climate in which our people can excel.

Your chief concerns, the things that you talk about, seem to be efficiency, integrity, and professionalism within the department. How do you measure these intangibles? And how do we maintain or encourage those qualities?

In the area of efficiency, if you're working for a state agency it's like living in a fishbowl. We are very accountable. So we make great efforts to develop systems to track our unit costs — what it costs us to do business.

For example, in the area of managing our construction work, we know what it costs in each district. And the district engineers in turn know what it costs in each residency organization to handle the engineering and inspection work involved for each construction project.

In the area of preliminary engineering, we have a tracking system so that, as we contract projects, we know precisely how much preliminary engineering money was spent; how much it cost to develop the plans and specifications for each project. And we feel real good about our performance. We know that for the last thousand projects to go to contract, work performed in-house competes very favorably with work that we're utilizing consultants for. It cost approximately 75 percent more on those projects where we've used consultants during the peak design period that we are now coming out of. But this was the appropriate way to handle this work during the peak period as we did not want to staff up for a temporary peak work load and we needed to move the work to contract.

Again, we have a great management tool with this system as we are able to compare preliminary engineering costs in different districts for similar type work, with the objective of providing assistance where needed to make all areas of the state cost-effective.

We are now working on a similar type of system to compare maintenance costs.

In the area of integrity and professionalism, I know that what I'm stressing is no different from what Mr. (Dewitt) Greer, or (J.C.) Dingwall, or (Luther) DeBerry, or Mark Goode stressed in this same position in years gone by. This department has a long, long history of outstanding integrity and professionalism on the part of our



people. I know this is one of the chief reasons that we have so many people who go to work with the department stay with the department. They appreciate working in an organization that places great emphasis on ethics and integrity. This department does just that.

As far as how we measure these intangibles, I think overall performance, the general feedback we get from the construction industry, from elected people all over the state, and from the general public, verifies that this organization rates very high in this area.

History is the ultimate judge in these matters, and this department has fared well over the years.

In a conversation just before you took office, you talked about the resident engineers taking on the dual responsibilities of engineering and maintenance. How is that working out?

That's pretty well in place throughout the state. It's working really well. There's not any question that the more we move into this, the more time we've had to adjust to this operation, all over the state we're going to get better design, better construction, and better maintenance. It provides

the most efficient method of utilizing our available resources.

What are your goals for the department in the foreseeable future?

We have a large construction program under way — in fact, the largest ever — and we want to keep that program moving. We're gaining ground on unclogging the congestion in the larger cities and upgrading our rural road system. For a long period of time funds were simply not available to do the needed work. We now are better funded than we were, and we're taking advantage of it and playing catch-up all over the state. I'm particularly anxious that this construction program will continue to move. I think our people are doing a fine job in maintaining our system. Since we're getting our pavements back in much better shape, we're relieving our maintenance personnel to do things other than just patch under heavy traffic conditions. And as far as long-range goals, if I were to say where are we going to be five years from now, I feel confident that we're going to have the best-engineered and best-maintained highway system in the world. We'll settle for nothing less!

How can these goals be promoted? What are the possible threats to their accomplishment?

We always have to be concerned about any threat to the department's funding. Fortunately we're blessed with an outstanding highway commission. They're the people who play the key role in assuring an adequate level of funding for the department. They work with the elected people to assure us reasonable funding. They do a great job at this.

I also know that the people of Texas expect us to keep their highway system updated and in good shape. They know that good roads are supported by user fees and they approve of this method of funding.

We knew for some time that we had an "age gap" and that we would lose a lot of experienced people at one time. Now that that's happened, how are we adjusting?

I think we've fared quite well. It's always difficult when you lose the type of experience and dedication that we had with the people who retired. But at the same time, because of our decentralized system, we're designed to develop people, to bring people along as rapidly as we can, to give them room to operate and use the God-given talents that they have. And because of our system we have been successful in moving outstanding people into jobs with greater responsibility throughout the organization. I feel good about it. As I travel around the state I just can't help feeling great pride in this organization and the caliber of people we have.

Do you have any thoughts about the functional reviews that are under way?

We're just really getting into it. I have not seen any reports yet. However, I think that self-analysis such as this is always good. I think the field review made us a better organization and I'm satisfied that this functional review of our Austin office will strengthen our operations as well. Of course, one of the things we're looking for is to eliminate any duplication that we may have in our operations. And I'm confident that we're going to come out a more efficient organization than we went in.

You've been to several of the "Transportation 2020" forums. What do you think has been developing from them? And what is your personal vision of how we'll handle our mobility needs in the future?

I'm impressed with the insight that the people around the state have. We've had 30 or more people testify at each of the forums and what you hear, over and over, is a recognition of the tremendous needs that exist out there today and that the needs are going to be even greater in the year 2000 and the year 2020.

Over and over, people recognize that these roads should be paid for with user fees, and these funds should be dedicated for highway purposes. I found no support for diversion of funds from their intended use. And I think the great recognition of the people is that no matter what technological development takes place in the next 30 years, the major movement of people and goods will remain on streets and highways in this state and this nation.

My personal feeling is that Americans love their individual mobility, and maybe Texans love this even more than people in other areas of the nation. And no matter

Photos by Geoff Appold

what efforts and funds are spent you're not going to get the masses of people to change their lifestyle very much. Your streets and highways are going to be carrying a big part of the load.

Today in major metropolitan areas, less than 3 percent of the people-trips are made by transit. We all hope that that will increase. And we all hope that we can increase the number of people in each vehicle. The department is a leader throughout the nation in the development of high-occupancy vehicle lanes. We'll be continuing that program. Typically, in the major cities, we've got about 1.25 people per vehicle. Any increase in that occupancy rate will be a great help.

With all of your department commitments, do you have any free time? What do you do to relax?

I don't have much. With what I do have, of course, I enjoy following the Aggies. An occasional golf game. And keeping up with three grandchildren. We have a granddaughter who's a freshman at Texas A&M this year. Another granddaughter is a freshman in high school and we have a grandson in sixth grade. He's involved in all the Little League activities and whenever we get a chance Mary Ann and I enjoy following him.

I'm impressed with the insight that the people around the state have. We've had 30 or more people testify at each of the forums and what you hear, over and over, is a recognition of the tremendous needs that exist out there today and that the needs are going to be even greater in the year 2000 and the year 2020.

When you "follow the Aggies," is that football, basketball, the whole spectrum?

Well, these days it's pretty well confined to following the Southwest Conference champions in football year after year (chuckle).

That post in the back of the building stays maroon, doesn't it?

That's probably the poorest-maintained item we've got on our state system. We're not getting that painted as regularly as we should. There are some people who like to see the chips — you've got to go through many levels of paint to see the orange paint. There are some people who like to see those orange chips show up.

Is there a book you've read recently that made an impression?

Most of my reading is confined to trying to keep up with what's going on in the area of highways and transportation. But the last book I recall reading from cover to cover was *Passage Between the Seas*, the story of the construction of the Panama Canal. It was a great and very difficult engineering feat. I guess you'd compare it to the development of the 73,000-mile Texas highway system. I read that in anticipation of taking a trip through the Panama Canal and then didn't get to take the trip.

Besides taking that trip someday, do you have any personal goals for the next few years?

Well, a personal goal in this assignment would just be to do my dead-level best to ensure that we have the proper working climate for the greatest group of people around.

An observer outside the department predicted back in 1970 that we should keep an eye on one Raymond E. Stotzer, who was a "comer." Did you have any idea 18 years ago that you'd be where you are today?

No! In my 40 years with the department I've enjoyed every assignment that I've had and I haven't worried about the next assignment. I've just tried to get on with what I'm doing. I was a very happy resident engineer and enjoyed two great assignments as district engineer, and the idea of moving to another assignment was never a concern to me — I was happy with what I was doing.



How do you personally identify tomorrow's leaders? Are you always keeping your eyes open when you're out there for who the bright stars are? How do they emerge?

I think we have many outstanding people all around the state. The great thing about this department is that we have so many assignments with large responsibilities, great opportunities for growth. I guess one thing that will catch anybody's attention is those people who give 100, or even 110 percent to their assignments. It's not unusual for those people to rise to the top in this organization or any organization. And we have lots of people who do that.

Do you think that's true in the department more so than in other organizations?

I think so. It's the nature of the work we do. You can see what you've done; you get to see your end product. You're out there working on a highway whether designing it, working on construction, or repairing it. Not only you but a lot of other people get to see what you've done. And you're doing something for your fellow man. There are not many professions outside the ministry and the medical area where you can do more for your fellow man than you can in this business. ★

Consultant use policy approved

By Karen LeFevre

Highway commissioners have unanimously approved the department's policy on the use of consultant engineers.

The guidelines call for the use of in-house staff to perform the department's normal design work load. Consultant engineers will be used for peak work loads, for some specialty work, and for critical projects which would be unduly delayed due to lack of "in-house" design resources. Consultants may also be used on projects where third-party involvement would be beneficial.

"In adopting this policy, the commission has expressed confidence in our design capabilities," Engineer-Director Raymond Stotzer said. "It's in the public's best interest for us to manage our resources most efficiently."

Independent studies have indicated it is more cost-effective for the highway department to use in-house engineering staff than to use consultants.

During the early 1980s, there was an increase in both federal and state highway funding that allowed the department to undertake many new projects, explained Stotzer. "By 1984, the department found it necessary and appropriate to use consultants due to the peak work load, instead of significantly increasing staff for the peak load," he said.

As a result of that period, the commission ordered studies to determine the cost-effectiveness and quality of work done by consultant engineers compared to in-house staff and to evaluate the department's policy on using consultants.

The studies were conducted by the Texas Transportation Institute at Texas A&M University, the Center for Transportation Research at the University of Texas, and Ernst & Whinney, an accounting management firm in Washington, D.C.

All three studies concluded that it is substantially more economical for the department to do its engineering plans in-house.

"The department's policy is sound. And we will continue using consultants as needed," Stotzer added. "We want to ensure that we're good stewards of the funds provided for the highway program."★

Speeds raised on rural roads

The highway commission in January raised the speed limit to 65 mph on 74 miles of rural, non-Interstate highways.

The following roads were judged to best meet federal requirements for posting the 65-mph speed limit: 12 miles of US 59 in Fort Bend County from Texas 36 to Texas 6; three miles of US 60 in Randall County near Canyon from Interstate 27 to US 87; 29 miles of US 75 from the Sherman urban limits to Dallas urban limits; six miles of US 190 in Bell County from Nolanville to the Temple/Belton urban limit; 10 miles of US 287 in Ellis County, the Waxahachie bypass; five miles of Spur 557 (presently signed as Interstate 20) in Kaufman County from US 80 to Interstate 20; and nine miles

of US 80 from the Dallas/Kaufman county lines to Spur 557 near Terrell.

For a road to be considered for the 65-mph speed, it had to be located outside an urban area with a population of 50,000 or more. It also must have been constructed to Interstate standards, connect to an Interstate posted at 65 mph, and be a divided, four-lane, controlled-access highway. In Texas, 104 miles met these criteria. However, after engineering and traffic investigations were finalized, 30 miles were returned to the 55-mph speed limit.

The 65-mph speed limit took effect, with the governor's consent, on February 5.★
Al Zucha

Big boost seen for small cities

The department will spend \$93.4 million in federal aid over the next five years to improve streets in Texas cities with populations up to 200,000.

The highway commission approved at its January meeting the 1988-92 Urban System Program for Non-Major Urbanized Areas. The program will distribute federal funds to projects throughout the state that have been selected by the department in cooperation with local governments.

"We're putting \$93 million into Texas cities to update 55 state roads and 151 city streets," said Roger Welsch, deputy director for design and construction. "This program gives smaller Texas cities the opportunity to solve some local traffic needs.

"Big cities are not left out," Welsch added. "Another program will come out in the spring that will aid the major urbanized areas — Houston, Dallas, Fort Worth, San Antonio, Austin, Corpus Christi, and El Paso."

The program for large urban areas was delayed because of the formulation of a new Principal Arterial Street System, designed to improve traffic flow on streets that feed onto highways.

"We are pleased to cooperate with cities because it is a big benefit to the state highway system and city streets," said Welsch. "When we go in and update these roads, the traffic along them flows better. The improved flow along city streets reduces the number of short trips on the highway. The city benefits, the highways benefit, and the public benefits."

Projects include reconstruction, widening, and resurfacing of streets; upgrading of traffic signals and drainage facilities; and construction of overpasses and ramps. Cities and counties will pay for curbs, gutters, storm sewers, driveways, and sidewalks for projects off the state highway system, and in some cases will contribute to the total cost of the project.★Gina McAskill

Seat-belt use drops in state

Seat-belt use in Texas has dropped sharply, according to a survey just completed for the highway department.

The rate of compliance with the state's 1985 "buckle up" statute reached a peak of 66.1 percent in 1986. But a survey of 14 cities conducted by the Texas Transportation Institute (TTI) in January shows that seat-belt use has fallen to 55.7 percent.

While this compliance rate is higher than the average for states with seat-belt laws, the new figure is down 4 percentage points from the rate reported in June 1987.

"Even though belt-law states typically experience a post-law decline, we're very concerned that Texans aren't buckling up," said Gary Trietsch, safety and traffic operations engineer.

The TTI survey, conducted twice a year, used 14 cities to determine average compliance in 1986. Basing comparisons on those cities only, the current rate falls to 55.7 percent. But in the January 1988 survey four more cities were added — Abilene, Laredo, Midland, and Wichita Falls. With these cities included in the statewide average, the compliance rate drops to 54.1 percent.

Trietsch said, "If usage continues to decrease, traffic fatalities and serious injuries could be expected to increase. It's particularly alarming since buckling up is the law, and several of the major law enforcement agencies have vowed to increase their citations for non-compliance."

While many of the cities surveyed did experience declines in seat-belt use of 5 to 10 percentage points, some cities showed increases. Corpus Christi's rate increased by more than 10 percentage points, making it the Texas city with the highest observed use at 77.3 percent. Laredo's is the lowest at 32.4 percent.★Karen LeFevre

Events calendar lists spring fun

There's just no limit to the ways Texans have fun in springtime. From the traditional to the unexpected, there's something for everyone in virtually every corner of the state. This spring, Texans play host to more than 900 happenings, all found in the department's latest Texas Events Calendar.

The spring calendar, spanning the months of March, April, and May, proves something long suspected: Texans love to celebrate. From a "Spamarama" hailing the creation of potted meat to more serious events honoring fallen heroes, there's something happening in Texas all the time.

No fewer than 30 activities pay tribute to the arrival of spring. The Highland Lakes Bluebonnet Trail winds through the Texas Hill Country. There's a Redbud Festival in

Buna and a Dogwood Trails Festival in Woodville. And spring blooms at dozens of flower and garden shows.

Texans compete with horse, dog, turtle, drag, and outhouse races, and with tennis, golf, and fishing tournaments. Runners race around the Globe Theatre in Odessa. And in Brenham, at the Blue Bell Fun Run, the famous ice cream waits at the finish line.

Packed with rodeos, stock shows, art shows, and folk festivals, along with dozens of musical and cultural events, the spring calendar tells the where and when of it all. Individual free copies are available at the 12 Texas Tourist Bureaus or by calling 465-7401 in Austin (Tex-An 241-7401).

★Ann Kelton

Transportation 2020 seeks clear vision

By Marcy Goodfleisch

No, Barbara Walters isn't involved. And it's not an eye test either, although it does require vision.

"Transportation 2020" is designed to develop a new national transportation goal. In public hearings all across the country, states are asking what taxpayers think transportation needs will be 30 years from now. From those visions, it is hoped, will emerge a new plan for transportation in the year 2020.

In Texas, the forums were jointly sponsored by the Highway Users Conference, Texas Good Roads/Transportation Association, and the highway department. Although most other states had only one forum, Texas held six meetings.

"We recognized that if we had only a single forum, we would have a limited input of 40 to 50 people at the most," said Deputy Director Marc Yancey. "And by only having one meeting in Austin, we would be unlikely to get regional input."

After months of planning, dozens of staff and administration personnel in the highway department mobilized in February to hold the forums around the state. The ambitious project included meetings in San Antonio, Houston, Dallas, El Paso, Lubbock, and finally Austin.

From those visions will emerge a new plan for transportation in the year 2020.

Each forum featured a panel of transportation experts, including at least one member of the highway commission or administration. About 30 speakers were assigned times for oral presentations, which were regulated by a traffic signal warning when time was short (yellow) and up (red). Speakers ranged from individuals to local government officials to representatives of businesses and transportation organizations. Media and members of the public were encouraged to attend.

To augment the verbal testimony at the forums, about 12,000 questionnaires were mailed to a targeted audience. A written copy of each participant's oral testimony was collected. And more than 100 written opinions were received with the 1,800 or so responses to the questionnaire.

The Texas project will culminate on April 1 with a report to Washington. But making sense of the vast amount of information will involve a team of six people from three divisions: Planning and Policy, Transportation Planning, and Travel and Information.

"Some of the information we have received has been surprising," said Yancey, who is spearheading the department's participation in Transportation 2020. "In El Paso, we were told that the population of the combined urban areas there will be about 4.3 million by the year 2010. That's more than we expected. You can't isolate Juarez from El Paso in terms of transportation, so that's something we've had to consider."

Since late last year, personnel from the Planning and Policy Division have been feeding data from the questionnaires into computers to generate an overview that can be analyzed by the team. Al Eells, who has



San Antonio Mayor Henry Cisneros discusses South Texas mobility needs at first Transportation 2020 forum. (Photo by Geoff Appold)

managed the division's number-crunching efforts, said the work has included a few laughs as well as good information.

"We've had reports sent to us that were carefully typed and we've had little notes on scraps of paper," said Eells. "We even had comments from eight high-school students in Grayson County. They focused a lot on solar-powered cars."

Eells said the written comments range from detailed ideas on planning highways of the future to a complaint from one writer that litterbugs should be locked in a stockade next to the dump.

"When we were first presented the task of writing a questionnaire, we had to begin by designing it for computer use," said Eells.

"It had to be quantifiable. We realized it would be a tremendous task to analyze data from such a large number of responses. Some states only sent out 400 to 500 questionnaires. We sent about 12,000."

To handle the 132 variables the questionnaire contains, Eells said his division used dBase III Plus and Statistical Analysis Systems (SAS) to generate numbers and graphs.

"We didn't know, at first, what kind of response to expect," said Eells. "For a while we got 100 or so a day. With our data entry being done by our own staff, that would have been difficult to keep up with, had it continued. Finally it leveled out to a more manageable number."

Yancey and Eells both say the forums showed some consistent themes. Continuation of dedicated funding, solving mobility problems in urban areas, and greater planning and cooperation among government levels recurred in the discussions.

"I think we can demonstrate that the people of Texas do not intend to sacrifice their transportation for other issues," said Yancey. "In addition to establishing a national transportation goal for the year 2020, these hearings have given us a good insight into the expectations Texans have of their transportation system."

Along with some consistent themes, each forum offered some unique features.

"There was a noticeable regional difference in the forums," said Eells. "The needs in San Antonio differ from the needs in the Dallas-Fort Worth area. We heard everything from the very local concerns to the highly technical."

Although it is too early to give conclusions, Yancey is excited about the project's scope and promise. And he is impressed with the work put in by department employees.

"The planning and the implementation of the Texas 2020 project is a clear demonstration of how a team effort in the department can work," he said. "Seeing the combined efforts of the districts and divisions is one of the most satisfying things I've ever been involved in."★

Powers seizes 'enrichment' opportunity

By Karen LeFevre

Ted Powers, who has been a fixture at the monthly commission hearings over the past few years, has embarked on a new phase in his career. For the next 18 months, he'll be a staff instructor with the Governor's Office State Management Development Center.

During one of the few breaks he's taken since his move, he said he's had to "hit the ground running" to keep up with the intense schedule of commuting to the training center in New Braunfels. He was busily preparing to be class manager and present his first few training modules when he took time to visit the Austin headquarters, have a cup of coffee, and talk about his new appointment.

Powers became interested in management training for MDC during his own participation in the center's First Level Managers training program last year.

"To have participated in FLM training with 26 people — the best — from all the state agencies was a key experience for me. I knew I wanted to continue to be part of that," he said.

The State Management Development Center was created in 1980 and has been operating continuously ever since. The first classes were held in 1981. MDC's mission is to provide management skills and information for all levels of state agency managers. Current programs include First Level Managers, Managers of Managers, and Executive Development training.

After his first training week, Powers informed his division head, Robert Flaherty, and Planning and Policy Deputy Director Marcus Yancey about his interest. Flaherty, director of the Equipment and Procurement Division, told him, "You have

the backing of the entire division." And Yancey, who has always encouraged department personnel to contribute to the instructors' pool, also responded favorably. "It makes you feel good to get that kind of response and support for something you want to do," Powers said.

Powers' enthusiasm overflows as he sets down his coffee cup to talk with his hands. "My work supervising the commission hearings (as assistant building manager) enabled me to interact with the department's leaders — commissioners, district engineers, division heads. Life is an interaction — a sharing — a give and take. And it does come to those who wait."

But he can hardly be seen as waiting. He actively sought the opportunity to serve the department in this way. "The effort comes from within," he said. "You have to seek out those enrichments you want in life — when you feel it's something you don't want to miss. State government's like a parade and you can't let it pass you by. I have 20 years invested in it."

Powers, a 10-year department veteran, has spent the last two decades working for the state. During his first decade in state government, he worked for the Texas Commission on the Arts and Humanities and the Texas Historical Commission. His prior experience includes a position with the National Trust for Historical Preservation and private-sector employment in fiscal administration and contract management.

During his 10 years with the highway department, Powers has worked for the Equipment and Procurement Division as purchasing agent, administrator, branch chief, and, most recently, as assistant

building manager. In this capacity, he oversaw the monthly commission meetings, including audiovisual support, and coordinated the telephone systems for the Austin offices, including division inventory and minor equipment system input.

Powers received a B.B.A. degree from Lamar University in marketing and management in 1967. He took additional training in management at the University of Texas at Austin.

In order to be accepted as an MDC trainer, an agency employee must first volunteer and gain the support of his superiors, then go through a screening process at MDC. Qualifications include a college degree or equivalent, ideally with experience instructing adults; at least three years of line management; a position at least one managerial level higher than participants; and a fine performance record.

At present, the department has four MDC instructors. In addition to Powers, Bob Williams of the Traffic Safety Section serves as a Manager of Managers trainer; Joe Denton of the Highway Design Division serves as manager of the First Level Managers program; and James Chidester of the Internal Review and Audit Section instructs FLM participants.

"State government's like a parade and you can't let it pass you by. I have 20 years invested in it."

Appointment to the program is, according to the Governor's Office, a form of recognition and reward. At the end of the 18-month training assignment, instructors are expected to return to their home agencies and assume challenging new positions at levels higher than they had when they entered the MDC program.

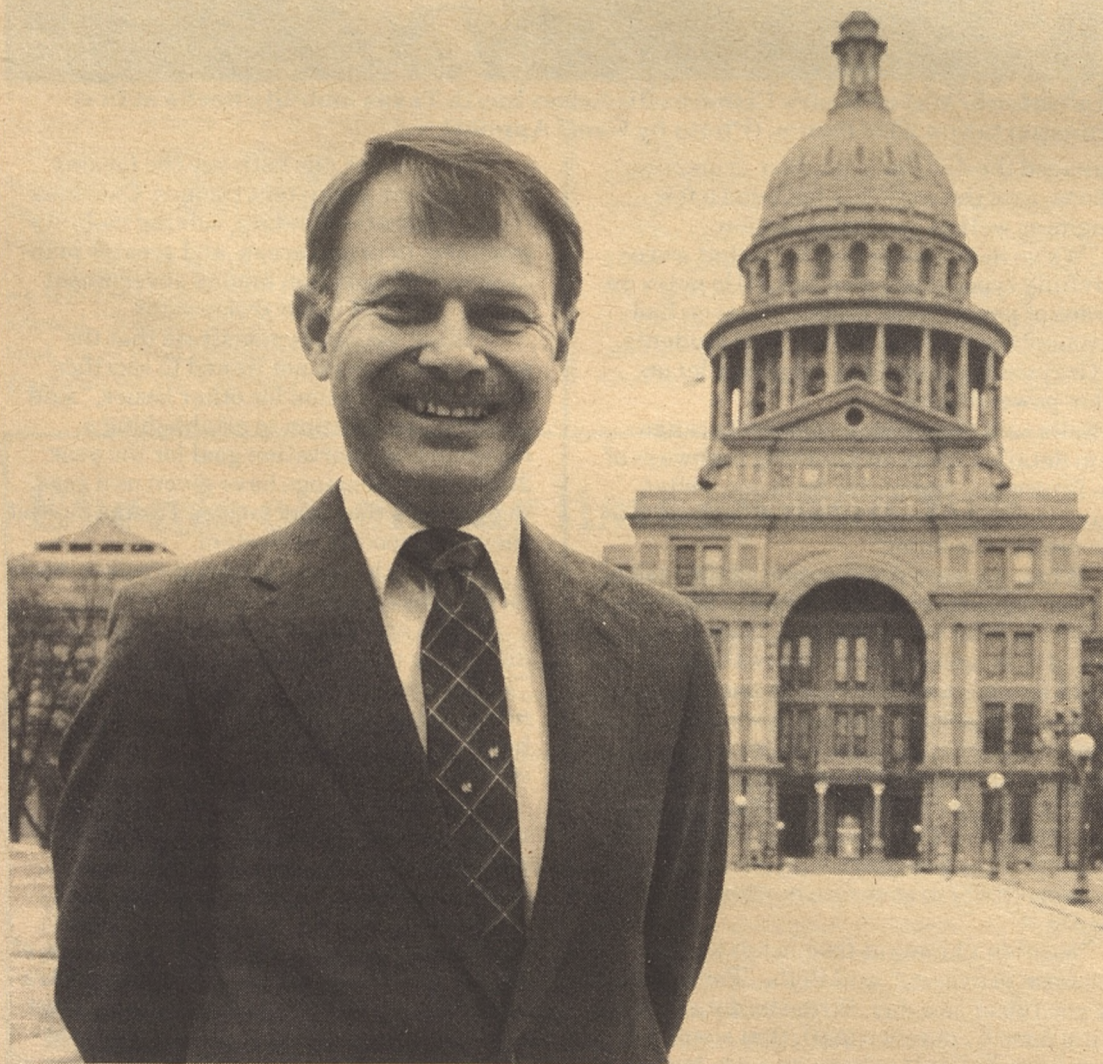
But Powers is not focused on the future. Rather, he's actively involved in his present and the opportunity at hand. He says he's always been people-oriented — open to people's ideas. His work has allowed him to "find a way to give them what they wanted. If you had to say 'No,' you want them to understand why. My job was to help them get their jobs done, guided by legislative policy and cost-effectiveness."

His new position is, to him, much the same — only with the interaction occurring in a classroom setting. He says being an instructor is "a gifted situation. You're not just sharing your experience (with the participants), you're in there learning with them."

And, he's quick to add, he carries with him all that his coworkers and supervisors over the years have given him. "There's a push from 20 years of people and experience. This is the beginning of a new segment of my life — to be broadened and expanded. Each person who's been around me has added to that," he says.

Recently, Powers went to his 30th high school reunion. The theme was: "Follow Your Star." He says going back made him realize "your reach should exceed your grasp."

"I guess I've always been looking for the next vine to swing to, the next point along this life path," Powers said. "Now, with this new opportunity, I get a lofty feeling."★



Ted Powers decided after his first-line management training that he "wanted to be a part of that." (Photo by Geoff Appold)

Trainers dedicated to their tasks

By Kathy Wilburn

More than 5,000 members of the "highway family" have attended training courses taught by their peers in the last two years. These peer instructors continue to receive higher marks for effectiveness and usefulness of the training than university professors and consultants.

What makes a peer instructor? What is life like for those who choose to add yet another talent to their array of skills?

The department has two types of peer instructors – temporary instructors and adjunct instructors. Few of these peer instructors have prior teaching experience. Their strength lies not in textbook information about theory and techniques, but in their management experience with the department.

Temporary instructors transfer to the Human Resources Division in Austin for two years to teach general management courses, Managing People I and Managing People II. After their tour as instructors, they return to their sponsoring districts or divisions to continue in their primary job functions.

The mission of these instructors is to communicate basic management techniques to people with diverse functions in the department. They typically teach four or five sections of a course during their two-year tour, using examples from their own managerial experience in the department. In addition, they read journals and books on management to keep current in their material. They also contact participants before each class and 90 to 120 days afterwards to discuss application of techniques. They work with participants not only during classes at the Lago Vista training site near Austin, but out of class as well.

Adjunct instructors have these same duties, while continuing to fulfill their regular, full-time positions in the department. Adjunct instructors teach at least one module in one of the applied management courses.

They must be able to communicate basic management principles as they can be specifically applied to job functions. For example, instructors in Maintenance Management teach how to communicate with subordinates scattered in diverse areas; but they also teach public relations, which emphasizes communicating with citizens, contractors, and local government officials.

Because each applied management course is specific to a function, adjunct instructors must also develop their own curriculum and teaching materials. That requires continual updating and revising. As one instructor commented, "When I first started, I was afraid I didn't have enough material and I wouldn't keep the class' interest. Then I discovered that they were so interested and asked so many questions I didn't get through my material. So I had to decide, with the help of the other instructors, what was essential, and then learn how to focus discussion and make sure it didn't run too long."

The adjunct instructors make many sacrifices. To keep supervisors happy when they are off teaching, the instructors accomplish four weeks of work in three.



While dress and demeanor are casual, discussion groups like this one during a Lago Vista training session involve intense preparation and leadership by instructors. (Photo by J. Griffis Smith)

The value of their sacrifices to the department is high. The increased effectiveness of management in the department – accomplishing more work with fewer people – is essential. When compared with the generic management training by consultants and universities whose instructors do not understand the structure or job functions of the department, the immediate management application that results from peer teaching earns high marks from participants and their supervisors.

"The service these dedicated people give to the department is immeasurable," said Engineer-Director Raymond Stotzer. "They deserve our heartfelt appreciation. And a special thank you is in order for instructors in the three maintenance management classes, which have provided excellent training to many hundreds of our maintenance managers." The maintenance management classes will be suspended temporarily for evaluation after March.

What is the teaching experience like for these instructors? "I taught for about eight or nine months before I felt really comfortable with the process," said one adjunct instructor. "The fact that I developed the lesson plan and the materials for my section helped me do an effective job. I picked up a second section after an instructor retired, and it was more difficult; I had to rework the material to keep the same learning points, but use my own examples and experiences."

For many instructors, teaching was a completely new experience. "The prospect of standing before my peers and teaching was scary, especially since I'd not even had training in public speaking. The participants have made a hard, scary job easy, and I've never regretted accepting the job. I've learned as much as I've taught from a group of top-quality people."

Another said: "I wrote and rewrote,

practiced in front of the mirror, my family, the dog; but I got better and I'm proud to be able to share my knowledge and experience with others."

The dedication of the adjunct instructors is summed up in two comments:

"I only know that I needed such a course when I became a supervisor, and I wanted to make managing people less traumatic for others than it was for me."

"I needed such a course when I became a supervisor, and I wanted to make managing people less traumatic for others."

They must make sure they have a way to stay informed about what happened while they were gone.

And if it is difficult to leave a job for a week each month, it is doubly hard to leave a family. According to one instructor, "The hardest thing to do is convince those I work with that I don't spend the week at Lago Vista playing. I still have to spend time preparing my material since I only teach it once a month. I teach four different sections and spend evenings talking to participants. I enjoy it, but it's hard work. And I still get nervous."

"It's work and I'm exhausted after teaching a week, but it's worth it because it's making a difference. It's showing people in the field that managing their resources is a top priority. That makes the sacrifices of practicing presentations and updating material and leaving my family worth it."★

Dr. Kathy Wilburn is director of management and staff development training in the Human Resources Division.

Resident relishes 'Mr. Highway' role

By Marcy Goodfleisch

To the average citizen, the term sounds like some form of "professor on call"; an expert in the field. In a way, that's not so far from the truth. But in practical terms, "resident engineer" means much more in the world of the highway department.

Perhaps to the engineers staffing more than 100 residencies around the state it's all part of a day's work. But to the local community and to the rest of the highway department, resident engineers are the backbone of the organization.

"We look at him as 'Mr. Highway' in that particular community, for that area," said Deputy Engineer-Director Byron Blaschke. "He's the one knowledgeable about local conditions, local resources and materials, and the local environment."

District Engineer J. L. Beard of Lufkin agrees.

"The resident engineer's role is really important to the department. They are the ones who usually implement all policies and procedures," said Beard. "They are in the forefront, in the eyes of the public. Most of our problems and inquiries are handled at that level, which is as it should be."

Jay Wingate, in Lufkin's Nacogdoches office, has been described as the quintessential resident engineer. Wingate has spent 22 of his 32 or so years with the highway department as a resident engineer. *And that's just where he wants to stay.*

"I guess I'm prejudiced," says Wingate. "I think the primary aim of the highway department is to design, build, and maintain roads. And this is where it's done. I think it's the greatest job in the highway department, myself - because you get to do what you went to school to learn to do."

Wingate's office, housed in a building resembling many residencies around the state, reflects the simplicity of his attitude. A friendly clatter of noise greets visitors at the door. Chairs have the comfortable squeak born from years of good use. Aging wooden desks contrast with the latest in electronic equipment.

Typical of other department field offices, the rustle of papers, ringing of telephones, and murmurs of other employees convey an atmosphere of concentrated activity. Stacks of engineering records and technical books blend with personal memorabilia to decorate Wingate's office shelves. The maroon embroidered Texas A&M insignia on his gray shirt serves as a proud reminder of where he learned his trade.

Highway work runs in Wingate's family. A 1927 photograph in the department's 50th anniversary book shows Wingate as a toddler with his father, Rufus, a former maintenance engineer in the Beaumont District. Young Jay is perched atop a cement road marker. The photo appears as an example of the first signing methods.

Rufus Wingate is credited with building one of the first roadside parks in the state. Around 1930, a pull-off was built along Texas 87 at Cow Creek Crossing in Newton County to give motorists a place to wait for the floodwaters to subside whenever rain swelled the creek out of its banks. But Wingate says he wasn't entirely motivated by the romance of following in his father's footsteps.



Resident engineer Jay Wingate is "real satisfied" in his position. Described as the "quintessential" resident engineer, he believes he has "the greatest job in the highway department." (Photo by Barry Walker)

In 1946, 21-year-old Jay returned to his hometown after completing college and a stint in the Navy.

"The local resident engineer in Jasper offered me a job," said Wingate. "I was broke and I needed one, so I took it."

Today, Wingate serves as resident engineer for Nacogdoches and Shelby counties. About 85,000 people live in the two counties, where farming, poultry, and timber provide the main thrust of the economy. Nacogdoches has the feel of a college town, with Stephen F. Austin University drawing a student population each year.

More than 1,700 lane miles of state-maintained roadways lace the area. Wingate must balance engineering, management, and public relations skills on a daily basis in order to perform his job.

That kind of challenge appeals to many engineers, said Blaschke. "Whenever I think about my experience as a resident engineer compared to my subsequent assignments, I think about when I was in the Army," he said. "It's being where the action is. But there's a sense of satisfaction from that. I know of no other job in the highway department where there is a greater sense of day-to-day accomplishment."

Blaschke said the resident engineer must work directly with the local leaders and governments and respond to their needs and requests. The resident engineer represents the department, he said, and in effect speaks for it. But his role fits into the big picture.

"Through the resident engineer's knowledge of the local needs and his exper-

tise as an engineer, the taxpayer is going to get the best product for his money," said Blaschke. "The resident engineer has to make decisions, and put all resources to their best use. He can make or break the highway department in his area, depending on his capabilities and his use of the resources."

As complicated as it sounds, it all seems to work. At each of the residencies around the state, such decisions are made on an ongoing basis. Each project may vary in scope, but the result is an ever-improving network of roadways that enhances all sectors of the state's economy. And often, the ideas begin with requests to the resident engineer.

Wingate said many projects in the Nacogdoches area are prime examples of interaction with the community to plan highway development. Years ago, the loop around the city was requested by local leaders. Today, Wingate's residency supervises a series of projects to widen the loop and to connect it to other routes.

"We're creating an east-west route from downtown that will extend to the loop," said Wingate. "That came solely at the request of local officials. There was no thoroughfare going east-west through the city. This will be an extension of FM 2609 and it will serve the downtown area as well as the campus."

His success in juggling his various responsibilities has resulted in good feedback in the local media.

"In the eight or nine years Jay has been at that residency, we've had the greatest impact on the community," said Beard. Wingate's role has increased along with the traffic, he said.

Beard also sees resident engineers serving as trainers to younger employees. "A large part of professional growth is through the OJT (on-the-job training) a resident engineer provides to his employees. I think Jay is a good role model," said Beard. "And he provides a high degree of ethics and integrity for his young engineers to follow. Those are some of the intangibles."

In recent years, the responsibilities of resident engineers have expanded. Maintenance activities are now managed from the residency office. The change required an adjustment on the part of maintenance and residency staffs, but it is part of a move to localize more activity at that level. In parts of the state, design work is being absorbed by residency offices.

"Years ago, the cost of computer and design equipment prevented us from installing it at the residency level," said Blaschke. "We had centralized design offices in districts. Now, the cost of hardware has decreased and we are moving toward equipping residency offices with automated design capabilities."

The addition of new equipment saves turnaround time for the staff, he said. Projects can be completed faster, and valuable personnel hours can be saved.

Because of the daily rewards in residency work, it is often referred to as the key to advancement in the highway department. Blaschke said this isn't necessarily the case.

"Every one of this organization's elements is extremely important and needed," he said. "This is a team effort. If you could have the ideal, then every employee would have the opportunity to work at every level."

But of course, few organizations can offer that utopia.

"There is no need to feel that without that experience in the residency, you won't have opportunities," Blaschke said. "Just remember the importance of the team concept."

Perhaps the close contact with the taxpaying community is part of what makes the residency years in a fond memory for so many engineers in the department. Wingate says the telephone may ring with complaints now and then, but personal contact with the community reflects a high regard for the work of the highway department.

"You can talk to local clubs and groups, and when they find out you're with the

highway department, one of the first things they'll tell you is how much better our highway system is than the roads in neighboring states," said Wingate. "The silent majority is really behind the highway department."

Complaints, Wingate said, are usually isolated. A specific intersection may bother a specific motorist, but the problems are not widespread. In his years of managing his residency, he has developed a personal barometer to measure local complaints.

"If you have more than five people complain about one thing, you'd better do something," he said. "Usually you will not have more than two complain. I try to check every complaint, or have someone check it."

On the whole, the community offers few criticisms aimed at changing the department's operations.

"Most of the public feels like we know what needs to be done," Wingate said. "And they feel like we're going to do it."

Wingate said he gets good support from within the department, too.

"People want to help us," he said. "Probably most of them know that we are contrary. Sometimes we only see, as most people do, our own area or our own needs."

Wingate credits the department's administration with understanding the need to coordinate teamwork in the department and work to serve each other's needs.

"They know our primary goal is to build and maintain a highway system," Wingate said.

In return, the administration appreciates the part resident engineers play in bringing it all about. If department leaders could give one message to residency staffs, what would it be?

"We recognize the critical role you play," said Blaschke. "You provide the focal point for highway activity in your area."

To Wingate, that seems to be enough.

"I'm real satisfied in this position," he said. "I get to take an old road out there that's all chewed up and I can build something and watch it develop day by day. To me, that's very fulfilling."★

Public transit conference set

The 16th annual Texas Public Transportation Conference will convene April 6-8 at the Lincoln Hotel in Dallas.

Sponsored by the department's Transportation Planning Division, the conference offers the second annual bus "roadeo," vendor exhibits, and sessions on various aspects of public transportation. The Friend of Texas Transit Award will be presented at the closing luncheon, which also will feature Rep. David Cain, chairman of the House Transportation Committee in the Texas Legislature.

Highway commission chairman Robert Dedman will host the Texas Public Transportation Golf Tournament on April 5 at Brookhaven Country Club.

Conference registration fees are \$75 before March 25 and \$90 after that date. Participants may use the form below or request more information from the Transportation Planning Division. Hotel information is available at 1-800-228-0808.★

Sixteenth Annual Texas Public Transportation Conference The Lincoln Hotel, Dallas, Texas, April 6-8, 1988

Name _____ Phone _____

Title/Organization _____

Address _____

City _____ State _____ Zip _____

Registration fee covers all sessions of the conference.

Pre-Registration fee (prior to March 25) \$75.00

Registration fee after March 25 90.00

Make checks payable & mail this form to:

Texas Public Transportation Conference

P.O. Box 5960, Austin, Texas 78763



*Just the fax, ma'am***Documents zipping to department destinations**

By John Cagle

Sometimes, getting documents to their destination "absolutely, positively overnight" is not good enough. People want their information *now*.

It has long been a department goal to provide the fastest possible response to inquiries and complaints from the public. Quick response to field changes in construction activities is also critical. This means shipping information from one point to another with a minimum of delay.

The department is not alone in this plight. Americans in business and government generate 70 billion pages of information each year, and much of that has to get from point A to point B *quickly*.

Roger Welsch, deputy director for design and construction, recognized the increasing need for rapid response and recommended installation of special machines to transmit documents over telephone lines. Through his initiative, the department recently installed machines in many divisions and all of the districts.

They're called facsimile machines, or "fax" for short. Simply put, they're photocopiers that can transmit over telephone lines. The "exposure system" (or transmitter) and the printer (or receiver) are separated by telephone lines.

These machines have all the high-tech characteristics of the latest crop of computers. But the concept behind them is anything but new.

A Scottish clockmaker named Alexander Bain developed the first facsimile machine in 1842. That's almost 150 years ago, back when Texas was a republic and Sam Houston was its president.

Bain's crude device was improved on eight years later by Frederick Blakewell, and it is Blakewell's invention that is the basis for most of today's fax machines.

Facsimile machines made slow but steady progress throughout the 1920s and 1930s, and in 1934, the Associated Press introduced a wire photo service. During World War II, the devices were used by the military to transmit maps, orders, photographs, and weather charts.

A person with a fax machine can transmit to anyone else in the world, provided they both have telephones and compatible machines. Unfortunately, development of these devices has been hindered by the same double-edged sword that affects audio and video tape technology. Because of the competitive nature of the facsimile industry, different machine formats were developed. Each company considered its approach best, and while innovation was enhanced, few of the machines were compatible.

That's changing, thanks to the introduction of international guidelines provided by the Consultative Committee for International Telephone and Telegraph. The CCITT is a committee of representatives from member countries of the United Nations. The group has been established to study telecommunications equipment and recommend standards in design and operation.

The CCITT has attempted to bring some degree of order to the international facsimile market by dividing all existing machines into four basic groups.

(Continued on page 11)

**Directory
of Fax Machines**

District	Contact	Fax No.
1 Paris	Sabra Vaughn 835-9238 (STS)	835-9363 (STS)
2 Fort Worth	John Rosson Russ Stateham 837-6219 (STS)	837-6281 (STS)
3 Wichita Falls	Barbara Sells 891-3223 (STS)	891-3253 (STS)
4 Amarillo	Clyde Israel 843-6241 (STS)	843-6291 (STS)
5 Lubbock	Gary Bernethy 842-4421 (STS)	842-4458 (STS)
6 Odessa	Margie Neitzel 844-9214 (STS)	844-9456 (STS)
7 San Angelo	Jane Lawson 848-5260 (STS)	848-5235 (STS)
8 Abilene	Glen Bohannan 841-1290 (STS)	841-1303 (STS)
9 Waco	Joann Guin 820-2842 (STS)	820-2819 (STS)
10 Tyler	Louie O'Neill 836-2208 (STS) Charles Cooper 836-2205 (STS)	(214) 593-6490
11 Lufkin	Carolyn Blackburn 730-4237 (STS)	730-4290 (STS)
12 Houston	Rita Swindall 870-1751 (STS)	870-1756 (STS)
13 Yoakum	Automation 820-1737 (STS)	820-1772 (STS)
14 Austin	LaWannia Carpenter 820-0567 (STS) (512) 836-8640 ext. 567	(512) 837-3230
15 San Antonio	Ron Beath 259-5849 (STS)	259-5851 (STS) (512) 694-5851
16 Corpus Christi	Linda Skinner 827-2232 (STS)	827-2313 (STS)
17 Bryan	Sheryl Petroski 858-3220 (STS) Elaine Gregg 858-3272 (STS)	(409) 778-0461 (Temp.)
18 Dallas	Peggy Hightower 833-5115 (STS)	833-5117 (STS) (214) 320-6117
19 Atlanta	Const. Office 835-1209 (STS)	835-1277 (STS)
20 Beaumont	Yolanda Roberts 855-3204 (STS)	(409) 892-7398
21 Pharr	Ramiro E. Salazar 828-6272 (STS)	(512) 787-5618
23 Brownwood	Anita Ratliff 843-2291 (STS)	
24 El Paso	Betty Best *422-2204 (STS)	422-2241 (STS) *Please call before sending.
25 Childress	Betty Atkinson 835-2145 (STS) Carolyn Carrick 835-2163 (STS)	835-2154 (STS)
Construction Division D-6	Elaine LaRoux 463-8843 (255-8843) Debora Boggs 463-8844 (255-8844)	255-9938 (STS) (512) 463-9938 255-9897 (STS) (512) 463-9897

District	Contact	Fax No.
Bridge Division D-5	Ken Willis 254-5014 (STS)	254-5009 (STS) (512) 371-5009
Safety & Maintenance Operations Division D-18	Ray Ratcliff 258-8319 (STS)	258-8380 (STS) (512) 465-6380
Highway Design Division D-8	Field Coordination I	258-8190 (STS) (512) 465-6190
	Field Coordination II	258-8168 (STS) (512) 465-6168
	Field Coordination III	258-8187 (STS) (512) 465-6187
	Programming & Scheduling	258-8236 (STS) (512) 465-6236
Travel & Information Division D-16	John Cagle 463-8954 (255-8954)	255-9896 (STS) (512) 463-9896
Administration (RGW)	Nancy Handrick 463-0281 (255-0281)	255-0283 (STS) (512) 463-0283
Commissioner John Butler's Office	Richard Christie	(713) 960-9106
Commission Chairman Robert Dedman's Office	Brenda Manley (214) 888-7300	(214) 888-7795

In order to distinguish between districts and divisions, the districts enter DIST. on the RTI and TTI as their identifier.

For any additions or corrections, please call Elaine LaRoux, D-6, at 255-8843 (STS) or (512) 463-8843.



Fax machines have arrived in force. (Photo by J. Griffis Smith)

(Continued from page 10)

In the highway department, all the users are singing the same tune, or at least using the same instruments. How's it working so far?

"We're saving time and money in issuing permits," said Bert Lundell, head of the department's group in charge of writing overweight/oversize load permits. "Four private wire service companies now have fax equipment in our main permit office. By using the machines, trucking companies can phone ahead for permits. Because we're not using our own equipment, we save a lot of effort in processing the requests without increasing costs."

Fax machines will be installed in each of the department's 12 tourist bureaus also. The machines will allow the bureaus to receive printed road condition and wildflower reports from the Travel and Information Division headquarters, enabling them to give even better service to travelers.

Elaine LaRoux of the Construction Division's Office Engineering Section in Austin said two machines are used to transmit field changes, extra work orders, and plan sheets of construction projects. The process of receiving information from the districts, walking the data to the Highway Design Division for approval, and finally

Problems seen in smaller cars

Transportation researchers who examined minicars in crash tests at Texas A&M University found the thrifty imports encountered problems with some highway safety installations.

"We found the cars perform acceptably on longitudinal barriers such as guardrails and concrete barriers, but breakaway features on certain light poles and crash-cushion barriers can pose problems," said Dr. Hayes Ross, leader of the project and head of structural research with the Texas Transportation Institute at Texas A&M.

A total of 11 ultra-light cars weighing between 1,250 and 1,700 pounds were tested on a former airport runway in a \$350,000 study funded by the National Cooperative Highway Research Program. The vehicles collided with signs, poles, guardrails, crash cushions, embankments, and driveways. Computer simulations were used as well, said Ross.

"The cars aren't big enough to actuate cast-aluminum transformer bases used as breakaway features on lightposts," said Ross. Crash cushions such as those placed on freeway exits aren't as effective for the smaller cars either, he explained.

"The cushions are placed in front of rigid structures to bring vehicles to a safe stop over a short distance, yet the smaller cars slow much quicker, which can cause an increasing level of injury," Ross said.

"We can redesign these crash cushions and breakaway features for light fixtures, but whether we should hasn't been decided yet," he said.

Ross pointed out that previous crash tests involved cars weighing at least 1,800 pounds. While the study shows little difference in the stability of "micro-minicars" and larger cars running into guardrails and concrete barriers, or into embankments and driveways, accident reports tell a different story.

"These micro-minicars are designed primarily as a town car, to run back and forth over short distances at relatively low speeds, not for long trips," he said.

"Highway engineers are concerned about their use on freeways and rural roads at high speeds."

When a bigger car hits a sign post or light pole along a major highway, the support has been designed to yield so that the car can ride them down or break them, he explained. With the smaller cars, he said, the mass of the pole or support is much more significant in relation to the mass of the car.

Included among cars in the study were a 1982 Ford Fiesta, eight 1985 Fiat Unos, a 1983 Diahatsu Domino, a 1985 Chevy Sprint and a 1978 Honda Civic. ★

responding to the districts used to take two days. Now it takes less than three hours.

"It's still brand new," said LaRoux, "but after the districts get the feel of it, it'll cut down our postal service costs, and the mail distribution of paperwork from the districts will be reduced tremendously."

The addition of the devices to the department brings with it a new verb: "Fax me that document, Gonzo."

LaRoux has developed and distributed a telephone list of the department's facsimile machines. It's reproduced here to be posted for ready reference.

Happy faxing!★

Brownwood abloom with spring colors

By Jean Sparks

Blooming crape myrtle, jasmine, honeysuckle, and a variety of hardy plants will soon grace some Central Texas roadsides, thanks to landscaping efforts of the Brownwood District.

James Hair, Brown County maintenance supervisor, said the department planted 1,250 native plants and trees in Brownwood and Early this winter.

Beneficiaries of the beautification efforts are the Pecan Bayou Roadside Park; a section of the median of the Fort Worth Highway; the Blanket Roadside Park; US 67 on Bangs Hill; and an area near the Truman Harlow overpass.

Hair estimates that maintenance crews have transferred about 6,000 cubic yards of soil for the landscaping from their routine fall and winter ditch-cleaning operations.

Hair recently visited San Antonio, where the department maintains a nursery for highway landscaping. He spent a day there inspecting beautification projects and formulating his own plans for highways in Brown County. Later he returned to the San Antonio nursery for a truckload of plants and trees. He plans to bring in more plants this spring.

Hair and resident engineer Will Parks conducted a tour for Mary Marshall Holley, Brownwood Beautification Commission chairman, to show her the landscaping projects, enlist her ideas, and coordinate plans.

"The beautification of the entrances to the city has long been a goal of our commission," Holley said. "We recognize the importance of a first impression, and we appreciate what the highway department is doing."

Already transplanted to the Pecan Bayou Roadside Park are new oak trees, crape myrtle, oleander, yaupon, and pampas grass. Hair plans to plant the whole slope of the park down to the bayou's edge with coastal Bermuda grass.

The median of the Fort Worth Highway (US 67/377) has been planted with red oleander and crape myrtle, pampas grass, yaupon holly, and honeysuckle. Hair chose low-growing plants for this location to provide good sight distance.

All the roadside parks in Brown County are being refurbished. Crews have already trimmed trees, planted oleanders, and painted benches and arbors at the Blanket Roadside Park. The Banks Hill Park has been planted with afghan pine trees.

Twenty afghan pines have been planted on the slope of the Truman Harlow overpass embankment near Commerce Square. Small half-circle corrugated tin strips are keeping the small trees in place until they are established.

The new plants will need quite a bit of watering and care, but the extra effort is well worthwhile, Hair said.

Future plans call for landscaping the islands at the newly reconstructed Early and Cisco "Y" intersections on US 67/377 with clusters of small oak trees and coastal Bermuda grass. ★



Admiring the landscaping at the Pecan Bayou Roadside Park are resident engineer Will Parks, Brown County roadway maintenance supervisor James Hair, and Mary Marshall Holley, chairman of the Brownwood Beautification Commission. (Photo by Jean Sparks)

Tech Trade

Bright idea saves damage to overpass

By Evelyn Hughes

A good idea is hard to find, so when one comes along, the Odessa District jumps on it — even when it comes from unusual sources.

The district traffic department recently discovered that an idea developed years ago by a shaving cream company could help increase the safety of Texas travelers.

A series of accidents at an overpass in Ector County resulted in repairs at least three times, at a cost of approximately \$70,000 each. Faced with the need for something in addition to standard signing at the overpass, the district combined high-tech sensing equipment with warning messages modeled after the folksy Burma Shave series that lyrically reminded motorists to drive safely.

The overpass, located at Texas 158 and US 385, has a clearance of only 16 feet. The prestressed concrete beams have been hit several times by trucks carrying oversize loads. Usually the loads broke, but if they didn't the beams were damaged from the impact.

"At this point, the bridge must be repaired. This type of work is expensive and causes inconvenience to the traveling public," said Dee Phillips, traffic safety specialist.

It was Phillips and Morris Leach, signal maintenance supervisor, who decided on a solution. To warn truck drivers traveling on US 385 of the low clearance ahead, Phillips composed a no-frills warning message that was to the point. Three warning signs, placed consecutively, tell the complete story — just as the Burma Shave signs did: "16'0" THIS IS NO LIE . . . LIGHTS WILL FLASH . . . WHEN LOAD'S TOO HIGH."

Just beyond the yellow and black signs, a transmitter stands 15 feet 10 inches above the roadway. It sends a beam of infrared



Poetic license meets driver's license in Odessa. (Photo by Evelyn Hughes)

radiation across the highway to a receiver. When an oversize load crosses the beam, it triggers flashing lights on another sign, which warns the driver: "OVERHEIGHT, EXIT RIGHT." The driver then has 600 feet until he can exit and avoid a collision with the overpass.

Since the system was installed last June, there have been no more accidents that can be blamed on the low height of the overpass. Thousands of dollars, and possibly a few lives, are being saved because District 6 embraced an idea whose rhyme had come. ★

Texas Project Awards recognize excellence

By Harvie Jordan

A new awards program has commended 13 department engineers and 10 contractors for their teamwork in accomplishing highway projects.

"We're breaking new ground today," said Engineer-Director Raymond Stotzer in presenting the first round of the Texas Project Awards in Austin on January 12. "In a symbolic way, it's like breaking ground for a new construction project, because I believe the benefits will be long-lasting."

Cooperation between the department and contractors gives the Texas taxpayer exceptional value for each dollar invested in designing, constructing, and maintaining the highway system," Stotzer added.

The Texas Project Awards recognize excellence in performance by department project managers and project superintendents of prime contractors, in two categories. The construction category honors cooperation to complete a construction project on which difficult problems were encountered and amicably resolved. The design category recognizes department employees who were responsible for development of plans and specifications that minimized construction problems on complex projects.

Stotzer told recipients the awards "recognize the highest degree of professionalism, as judged by your peers."

Robert A. Julian, a supervising resident engineer in the Fort Worth District, and Doug Shock, project manager for APAC-Texas, Inc., shared honors for the reconstruction of Texas 121/183. Both were concerned about keeping traffic flowing as smoothly as possible without slowing progress on the project, Stotzer said in presenting the award. By working together to revise the schedule for weekday lane closures and agreeing to allow some weekend work, they completed the project and turned negative advance publicity into compliments from the public.

Another Fort Worth District resident engineer, Doug Myres, and Sunmount Corporation superintendent Red Range cooperated in a job on Interstate 35 West. "Working together closely, they solved two major problems that developed after work began," said Stotzer. "So close was their cooperation that despite these problems that might have delayed the project, it was completed three months ahead of schedule."

In the Abilene District, department engineer David Elmore worked with Frank Storbakken of Herzog Construction Corporation on 16 miles of Interstate 20 reconstruction projects in Howard County. Stotzer said that Elmore, who "inherited" the projects when the resident engineer retired, demonstrated "why I know we will meet the challenges" arising from the loss of many experienced personnel.

Mark D. Wooldridge of the Waco District and Marvin Stock, Austin Bridge Company superintendent, received awards for work



Mark Wooldridge of Waco District
(Photo by Helen Havelka)

involving a railroad overpass on Interstate 35 in McLennan County. The project presented problems because of the varying types of original construction, as well as deviations between the original plans and the existing structure. "But all difficulties were handled in a businesslike manner," Stotzer observed.

Tyler District project inspector Chester Wayne Dingler earned his award in cooperation with Claude Luce, project superintendent for Reynolds-Land, Inc. Their mission was to widen both sides of an existing curb-and-gutter section to provide a continuous left-turn lane through Tyler, using the existing storm sewer as much as possible. Through "close cooperation and ingenuity," these men were able to overcome difficulties and complete the project in 129 of the 200 working days allowed, Stotzer said.

Billy C. Hill capped his career as a project inspector with the honor he achieved with Tom Long, project superintendent for F. R. Lewis Construction Company. Hill, who recently retired after 26-1/2 years with the department, and Long worked on widening Texas 146 through parts of Livingston and into an adjacent rural area. By making schedules compatible with changing weather conditions, they ensured that traffic continued to move with as much ease as possible, Stotzer said. "Not only did the project work well, a good public image was maintained."

In several cases, the cooperative exchange involved more than a pair of department and contractor employees.

In the Yoakum District, chief inspectors Woodrow Jasek and Hugo H. Richter Jr. teamed with Charles Ray Smith, project superintendent for Dean Word Company and Acme Bridge Company. Their Texas 71 project, consisting of 85 items, "went smoothly because plans were complete, accurate, and understandable, and there

was good traffic control with consideration for safety and convenience of the traveling public," Stotzer said. He added that through their good working relationship, the three men anticipated most of the problems and resolved them with ease.

Another three-man effort involved general construction inspector Gordon Martin and engineer Joe Brett, from the Austin District, and Ross Anglin, project superintendent for Allan Construction Company. Charged with replacing two heavily traveled bridges over Interstate 35 just south of downtown Austin, the contractor set an aggressive schedule that required constant communication among the three men. The contractor elected to complete construction of one bridge before closing the other, which resulted in much earlier completion of both structures than had been anticipated, Stotzer said.

Another award honored cooperation among one department employee and two contractors' managers: Anthony W. Adams Jr., chief inspector in the Dallas District; and Joe Clark and C. H. Bohot, project managers for Austin Bridge Company. Their project constructed a three-level interchange for the relocation of Interstate 20 at Interstate 635, requiring complex sequencing to handle traffic. Through the interchange, structures presented problems of grading the slabs. But through cooperative efforts, "a system of varying the grades of slabs was developed that now appears in the standard plans of our department," Stotzer said. "Others will continue to benefit from that result."

In the design category, two department employees received recognition. Charles B. Mylius, who retired from the Houston District with 24 years of service, was responsible for the plans and specifications for the Lockwood Transit Center, a transfer station for the Authorized Vehicle Lane which has access to the city street system. "The project was unique," Stotzer said, "City building permits and building construction specifications presented special problems. But despite the unusual problems presented, the project had only very minor construction difficulties."

Bill Potter, a resident engineer in the Beaumont District, received his award for the design of embankment approaches to the new Nueces River cable-stayed bridge on Texas 87 in Jefferson and Orange counties. The bridge required approaches of approximately three miles through a very soft, deep marsh. The existing 50-year-old embankment had been settling into the marsh since it was first constructed, resulting in high maintenance costs. The new embankment construction will compensate for earlier settling, producing a roadway that will save maintenance while providing a smoother and safer facility.

"It was built on material so soft that only creatures with wings could cross it," Stotzer told Potter. "The dedication that you gave to the project makes my spirits soar."★

AWARDS

Service Awards

(January 31, 1988)

Automation

Tommie F. Howell, 30 years; Helen K. Horn, 25 years; Roy L. Mills Jr., 20 years; Gary B. Perrenot, 10 years; Clinton R. Hobbs, Keith R. Layton, five years.

Bridge

Luis Ybanez, 30 years; Ralph K. Banks, 25 years; William E. Kohutek Jr., 10 years; Daniel Ortegon, five years.

Equipment and Procurement

Gordon H. Miller, 25 years; Sharon R. McCallum, 10 years.

Finance

Philip A. Fredericks, 20 years; Ronald R. Smith, five years.

Materials and Tests

Donnie S. Boyd, 25 years; Malcolm T. Green, Walter D. Johnston, 20 years; Byron K. Kneifel, five years.

Motor Vehicles

James A. Sparks Jr., 30 years; Jo H. Maxwell, Jose Ruelas Jr., 20 years; Kenneth W. Carey, Paul D. Mitchel, Shirley H. Pavolich, Estela D. Vela, 15 years; Linda D. Kirksey, five years.

Safety and Maintenance Operations

Robert R. Guinn, 30 years; Craig A. Steffens, Carol S. Whittenbaugh, 20 years; James A. Countryman, five years.

Transportation Planning

Donald B. Dial, 30 years; Sammy L. Franks, 20 years.

Travel and Information

Reva R. Keltner, 25 years; Ann G. Kelton, 15 years.

Paris District (1)

John E. Hawk, 30 years; E.J. Cates, James L. Lawrence, 20 years; Gary L. Baird, Gerald E. Jackson, Odeas J. McPeak, 10 years; James R. Manis, five years.

Fort Worth District (2)

Thomas C. Barger, 35 years; Weldon R. Davis, Rexal L. Roye, 30 years; Jerry W. Grubis, 25 years; Gary W. Shields, 20 years; Allan D. Farquhar, Donald R. Williams, 15 years; Morteza G. Movassaghi, Everett L. Parker, 10 years; Douglas R. Brock, five years.

Wichita Falls District (3)

James E. Ansohn, Fred W. Slaggle, 35 years; Charles W. Ulbig, 25 years; Howard G. Gaines, 20 years; Robert J. Lafrenz, five years.

Amarillo District (4)

J.T. Woods, 25 years; Larry G. Miller, 20 years; Davis B. Stribling Jr., five years.

Lubbock District (5)

D.L. Jones, 35 years; Tina F. DeShazo, Gerald O. McDonald, James H. Trimble, 30 years; Johnnie W. Howard, 20 years; David A. Parker, 15 years; Doyle W. Driver, Fidencio Moreno, 10 years; Raul Arismendez, Rickey D. Hill, Jose Ramon Jr., five years.

Odessa District (6)

Pedro S. Celaya, 15 years; Elpidio S. Baiza, Maribel P. Jaso, Hipolito G. Rascon Jr., five years.

San Angelo District (7)

Jesus A. Menchaca, 35 years; Larry R. Hasty, Bobby C. Hepburn, Jose H. Rendon, 20 years; Romana M. Garcia, five years.

Abilene District (8)

William T. Robertson, 30 years; Homer J. Jannise, 20 years; Steven W. Edwards, Guadalupe R. Garcia, Donald G. Jordan, Dewey L. Nichols, Leonard E. Posey, 15 years; Jackie L. Holcomb, Loyd R. Walker, 10 years; Stephen A. James, five years.

Waco District (9)

Lester G. Fisseler, 30 years; Marty A. Nelson, 10 years; Richard P. Guthrie, Ricky E. Holland, Barbara J. Schilling, Billy J. Watson, five years.

Tyler District (10)

Charles C. Jacobs, 25 years; Cynthia M. Meador, James C. Pierce, Larry G. White, Bobby J. Williams, five years.

Lufkin District (11)

John L. Hartt, Robert W. Walker, 30 years; Wilton J. Whitehead, 25 years.

Houston District (12)

Jasper N. Harris Jr., 35 years; Charles A. Frey, Billy Kaminski, Richard L. McDonald, Salomon A. Zambada, 30 years; Herbert Lum, Carl H. Patton, Stanley T. Poer Jr., 25 years; Hans C. Olavson, 20 years; Bobbie D. Baker, Ralph Harmon, 10 years; Matthew T. Blake, David R. Elster, Sandra B. Hebert, Michael L. Ogden, Sheila R. Oriley, Shivinderp S. Randhawa, Robert L. Spaw Jr., Thomas W. Zahn, five years.

Yoakum District (13)

Robert L. Kaiser, 30 years; Melvin L. Otto, 25 years; Juan Castro, 20 years; Robert J. Mozisek, 15 years; Patricia O. Briones, John H. Ellsworth, Reinhold W. Gerbert, 10 years; Donald L. Jirkovsky, five years.

Austin District (14)

Alvin W. Brown, Robert W. Nauert, 30 years; Marshall D. Voigt, 20 years; Terry J. Brussel, Gregory K. Haley, Carlos H. Strand, 10 years.

San Antonio District (15)

William R. Badgley, 30 years; Carl D. Wenzel, 20 years; Roger D. Armstrong, Rodney R. Roberts, Robert D. Scheel, 15 years; David R. Balli, 10 years; Gerald B. Baker, Scott L. Hunt, five years.

Corpus Christi District (16)

Bert M. Asensio, Secundino Gutierrez, 30 years; Lonnie J. Urban, 20 years; Ricky L. Littleton, five years.

Bryan District (17)

Arthur A. Geick, 35 years; James D. Richter, Robert Vanvolkenburg, 15 years; Eddie J. Muston, 10 years.

Dallas District (18)

Noel M. Chamberlain, Otis R. Clark, 25 years; Fred T. Callaway, Billie G. Reid, 20 years; William D. Green, Harlan E. Moore, Joseph R. Stephens, 15 years; Bobby E. Walker, Erman J. Woodall, 10 years; Mark H. Wiley, five years.

Atlanta District (19)

Glen R. Busby, Walter A. Smith, 20 years; Donald M. Hill, 15 years; Lucille T. Hinojosa, 10 years; Joe D. Gage, five years.

Beaumont District (20)

Robert N. Morgan, 30 years; James E. Kimbrough, 25 years; Bill Haynes, 20 years; Shirley H. Decuir, 15 years; Terry K. Kimmey, 10 years.

Pharr District (21)

Juan Dominguez, Melvin D. Greenhill, Santos Zavala, 30 years; Esteban Montemayor, Peggy H. Neill, 25 years; Ramiro G. Cremar, 20 years; Guillermo Cuellar, 15 years; John L. Solis III, 10 years; Froilan Perez, five years.

Brownwood District (23)

Waymon J. Tabor, 25 years; Donnie B. Gifford, 10 years.

El Paso District (24)

Sergio I. Aguilar, David W. Lewis, 25 years; Jose L. Almanza, Ricardo Sotelo, 10 years; David W. Head, Brenda K. Pierce, five years.

Childress District (25)

Kenneth W. Young, 30 years; Richard D. Winters, 25 years; Carl W. Baker, 10 years; Gary J. Mizer, five years.

Retirements

(November 30, 1987)

Materials and Tests Division

Elenora M. Dickens, Administrative Technician I.

Lubbock District (5)

Fern G. Butler, Engineering Technician V.

Lufkin District (11)

Jimmie Brown, Maintenance Technician III.



In Memoriam

Retirees:

Edgar E. Allen, Alto, retired from Tyler District, died December 12, 1987.

Fred M. Carter, Georgetown, retired from Equipment and Procurement Division, died February 14, 1988.

Marvin E. Clark, Huntsville, retired from Bryan District, died January 22, 1988.

Willie N. Hamilton, Bonham, retired from Paris District, died January 29, 1988.

Herman V. Hoffmann, Schertz, retired from San Antonio District, died December 11, 1987.

Jessie L. Jones, Amarillo, retired from Amarillo District, retired November 1, 1987.

Jack M. Jordan, Austin, retired from Transportation Planning Division, died February 7, 1988.

George W. Olson, Hempstead, retired from Houston District, died February 3, 1988.

William C. Register, Lufkin, retired from Lufkin District, died January 13, 1988.

Jefferson E. Roberts, Bastrop, retired from Austin District, died December 7, 1987.

Gadston W. Smith, Mesquite, retired from Dallas District, died December 26, 1987.

Adelbert B. Thomas Jr., Houston, retired from Houston District, died December 29, 1987.

Francisco Varela, El Paso, retired from El Paso District, died January 3, 1988.

Lawrence E. Wenzell Sr., Beaumont, retired from Beaumont District, died January 9, 1988.

Ervin H. Weynand, Sabinal, retired from Del Rio District, died December 27, 1987.

LeRoy N. Walker, Round Rock, retired from Materials and Tests Division, died January 30, 1988.

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



With just a little pruning help, a pyracantha shrub on the front of the Houston County maintenance warehouse in Crockett has grown to resemble the shape of Texas. The star designates Crockett. (Photo by Larry Melson)

EVENTS

DHT

CALENDAR

MARCH

- 2 Holiday, Texas Independence Day
- 2 Managers Administrative Meeting, Gainesville, D-16
- 2-3 Construction Engineers Meeting, D-6
- 8-9 Highway Construction Lettings, Austin, D-6
- 8-10 Basics of Bridge Inspection, Austin, D-18M
- 8-11 Fundamentals and Abatement of Highway Traffic Noise Course, Austin, D-8E
- 14-18 InterPro 32C Workstation User Training, Austin, D-19
- 15-16 Equipment Conference, Austin, D-4
- 16-17 Area III Research Committee Meeting, Houston, D-10R
- 23-24 District Laboratory-Engineering Personnel Meeting, Abilene, D-9
- 23-25 Bridge Designers' Conference, Houston, D-5
- 29 Commission Hearing, Austin
- 29-31 Eastern Regional Maintenance Conference, Beaumont, D-18M
- 30 Commission Meeting, Austin

APRIL

- 4-8 InterPro 32C Workstation User Training, Austin, D-19
- 5-6 Highway Construction Lettings, Austin, D-6
- 5-7 Basics of Bridge Inspection, Austin, D-18M
- 6-8 Sixteenth Annual Texas Public Transportation Conference, Dallas, D-10P
- 11-14 Texas Travel Counselors Conference, Wichita Falls, D-16
- 12-13 Area I Research Committee Meeting, Lubbock, D-10R
- 12-14 Western Regional Maintenance Conference, San Angelo, D-18M
- 21 Holiday, San Jacinto Day
- 25-29 InterPro 32C Workstation User Training, Austin, D-19
- 26-28 Basics of Bridge Inspection, Austin, D-18M
- 27-28 Commission Meeting, Austin

MAY

- 3-4 Highway Construction Lettings, Austin, D-6
- 16-20 InterPro 32C Workstation User Training, Austin, D-19
- 17-18 1988 Safety and Traffic Conference, Austin, D-18STO
- 27 Commission Hearing and Meeting, Austin
- 30 Holiday, Memorial Day

JUNE

- 7-8 Highway Construction Lettings, Austin, D-6
- 8-10 1988 Transportation Planning Conference, Corpus Christi, D-10P
- 9-10 Research Area IV Advisory Committee Meeting, Fort Worth, D-5
- 28-29 Commission Meeting, Austin
- 30 District Engineers/Division Heads Meeting, Austin, BCB

JULY

- 1 District Engineers/Division Heads Meeting continued, Austin, BCB
- 4 Holiday, Independence Day



This past April outside of Sulphur Springs, my truck broke down while pulling my 42-foot trailer in a construction area on the highway. Rain, cold, and heavy traffic—one hell of a fix.

A. F. Langston came along—thank God!—and tried to get me under way. Unable to do so, he called for help and stayed with me until help arrived.

I will never forget Mr. Langston, and just wanted you to know that he is a credit to your department and to the state of Texas.

Herbert M. Block
Guadalajara, Jalisco, Mexico

Langston is an engineering technician in the Paris residency.

Just wanted to tell you how happy you have made me, as well as many other motorists who cruise Interstate 10. It wasn't too long ago that I made the trip to Beaumont, and noticed all those gorgeous different-colored wildflowers that had been planted in the median close to Vidor. I understand that the Maryland Club Coffee Company gave you the seeds to plant. I just hope that they "take" and reseed and

reseed—they are just beautiful and a joy to look at when driving that part of I-10.

Thank you, Maryland Club Coffee, and the highway maintenance crew!

Shirley McCarey
Orange

This letter came to Henry Ellison, maintenance superintendent in Beaumont.

On December 15, while on a trip to the Beaumont District office on department business, I unfortunately had a tire blow out near the city of Winnie. Fortunately for me and my passenger, **David Ash**, we encountered a District 20 highway employee.

James Cox of the Anahuac maintenance section assisted us. Mr. Cox kindly took time out from his job to assist in repairing the tire. This required a trip to Winnie. We appreciate Mr. Cox's kindness, willingness to help, and genuine concern for the traveling motorist. If not for his assistance, we could have been stranded for hours.

We need more employees like him.

Rita Swindall
Houston District

I was in your permit office July 9 to try to resolve some problems on a new roadway we are building into Camp Karankawa on FM 1459. **Molly McCormick** was assisting me.

I want you to know that her performance in this matter was truly outstanding. She volunteered to call your district office in Houston to get a question answered, then got on the radio to one of your inspectors asking him to call in. He did so and I was able to resolve the whole thing on the spot.

Seldom does one encounter an employee of a government agency who will go to such lengths to help a citizen. Please convey my thanks to Molly for a job well done. She reflects credit upon herself and the State Department of Highways and Public Transportation.

R. B. Hendricks, Vice President
Bay Area Council
Boy Scouts of America

McCormick is an employee of the Angleton maintenance section.

I just want to tell you how grateful we are to the department for the marvelous work done for all the residents of the Ore City during this time of crisis.

Our city has never experienced a tornado before. Many people have helped. We owe a debt of gratitude to each and every one—those who brought in heavy equipment to assist the department, those with chain saws, trucks and trailers, and everyone who offered a helping hand. Our special thanks to the highway department.

Douglas and Clementine Newsom
Ore City

This letter was received in November by Lawrence Jester, district engineer in Atlanta.

ON OUR COVER:
Texans turned out in San Antonio for the first of six Transportation 2020 forums. The month-long effort was part of a national drive to establish a new transportation goal as America enters the 21st century. See story, page 5. (Photo by Geoff Appold)

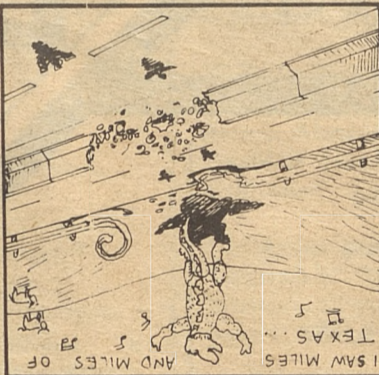
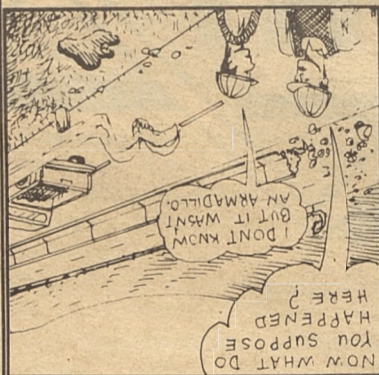
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HIGHWAY HUMOR

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