TEXAS TRANSPORTATION

Researcher

A PUBLICATION OF THE TEXAS TRANSPORTATION INSTITUTE ■ MEMBER OF THE TEXAS A&M UNIVERSITY SYSTEM ■ VOL. 41 ■ NO. 3 ■ 2005

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The Linear Shinkansen bullet train in Japan. The bullet train is one of the three high-speed rail technologies being researched by TTI.

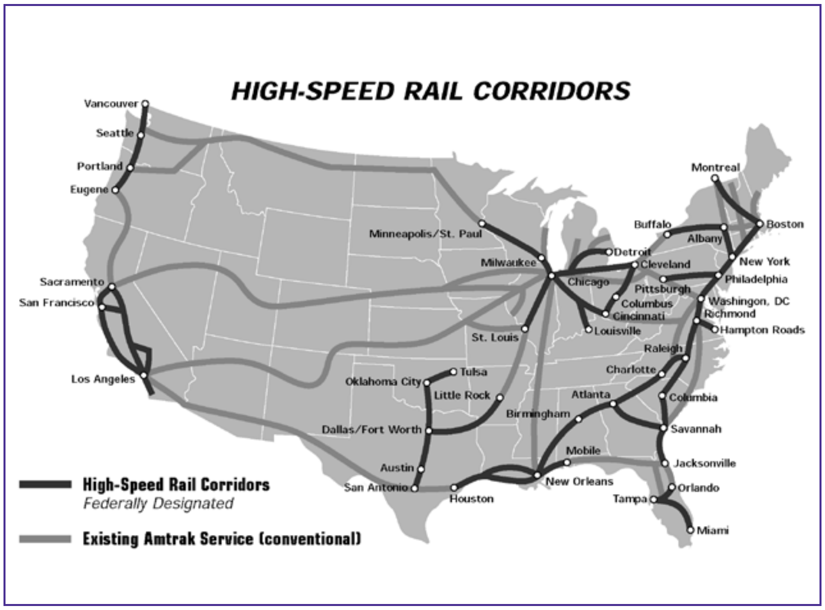
MORE INFORMATION
For more information, please contact Curtis Morgan at (979) 458-1683 or curtis-m@tamu.edu.

High-Speed Rail Dream

Is the time right for high-speed rail in Texas?

Sipping a cup of coffee in a comfortable chair with leg room…leaving Houston after work for an evening dinner in San Antonio…avoiding congested freeways and airports…all while being whisked along near ground level at speeds approaching 200 miles per hour (mph). Currently, that scenario is only possible in countries such as Japan and France. But Texas could be ready to make a large leap forward into high-speed rail travel.

The Texas Transportation Institute (TTI) is providing background research to determine the feasibility of high-speed rail in Texas. TTI is serving as a resource agency providing expertise and analytical capabilities to the Texas High-speed Rail and Transportation Corporation (THSRTC).



The United States Department of Transportation designated future high-speed rail corridors throughout the country to connect certain cities. The above map illustrates the federally designated high-speed rail corridors and the existing Amtrak service corridors. Other proposed routes form a "triangle" connecting Dallas, Houston and San Antonio.

TTI's involvement with THSRTC began with a proposal to present a series of white papers and reports. The first report, written by Craig Roco and Les Olson was an analysis of past high speed rail efforts in Texas. The report, "Policy and Financial Analysis of High-Speed Rail Ventures in the State of Texas," was published in 2004.

The purpose of the next paper is to present the options available for different high speed rail technologies (see sidebar).

"High speed rail means different things to different people," says Curtis Morgan, assistant research scientist with TTI. "So when you say high speed rail, you have to make sure people know what you are talking about in terms of technology."

Along with presenting the technologies, Morgan is also evaluating the various high speed rail routes, which have been proposed over the years by different agencies. For example, the United States Department of Transportation (US DOT) has designated future high speed rail corridors throughout the country to connect certain cities. In 2000, US DOT designated the South Central corridor, which connects Little Rock, Texarkana, Fort Worth, Austin, San Antonio, Oklahoma City and Tulsa.

With a project the size and scope of a high speed rail system, there are many technical and financial areas to evaluate. TTI is also documenting the steps required for the development of high speed rail and helping THSRTC establish a compendium of information on the types of assessments, studies and decisions necessary to make high speed rail a reality in Texas.

Future work may include assisting THRSTC in locating and collecting necessary data such as maps, population and employment density, strategic military transport concerns and freight needs.

TTI may also help evaluate the trade-offs between system speed and cost by documenting the high speed rail options that are in use throughout the world.

"It is an honor for THSRTC to partner with such a distinguished research organization, which will study vital aspects of the high-speed rail system plan," says John Happ, THSRTC vice-president and College Station City Council member. R

High-speed rail technologies

Incremental higher speed rail

This technology involves making improvements to existing service and facilities to achieve substantial travel time savings. The proposed high-speed rail line would travel on the same right-of-way, and possibly the same track as freight trains.

"The condition of the track is really what determines how fast the train can go," says Morgan. "Incremental high-speed rail could involve putting in a second track so the freight and rail trains could have increased capacity, which would also mean putting in a second bridge at some crossings."

European/Japanese style "Bullet Trains"

In the mid 1960s, Japan introduced the first bullet train that is considered to be the inspiration for other similar type systems in operation today. The trains run on dedicated rail lines and achieve speeds up to 185 mph.

Long touted for their excellent safety and on-time record, high-speed rail lines connect much of Europe and Asia, with existing systems in the United Kingdom, France, Spain, Belgium, Germany, Korea, Taiwan and China.

Maglev

Maglev (short for magnetic levitation) trains use powerful magnets that allow trains to float over a guideway using the basic principles of magnets to replace the old steel wheel and train tracks. The newest innovation in high-speed rail technology, maglev trains can travel at speeds up to 310 mph.

Maglev trains do not use a conventional train engine. The electrified coils in the guideway walls and the track combine to propel the train.

The Best Laid Plats

Workshops emphasize the value of involving TxDOT early in land development

"Early." In a series of workshops, based on Texas Department of Transportation (TxDOT) sponsored research, conducted at nine districts across the state, early was the watchword of the day. If attendees took nothing else from the daylong sessions conducted by Texas Transportation Institute (TTI) researchers, they should have at least left knowing that involving TxDOT in the earliest stages of land development adjacent to on-system roadways can help prevent a lot of heartburn and headaches down the road.

Plan the land

Most local jurisdictions follow a multi-staged process in their review and approval of subdivision plats and development plans. As developers and other planners go through the stages of turning land into subdivisions and other developments, they must decide early on what to put where. Known as the "platting" stage of development, it's at this time that new property lines are established and used to create new parcels.

At this stage, TxDOT would most like to see the parcel layout and make suggestions for shared/joint access easements or cross-access easements for the smoothest, safest traffic flow and access once the property is developed. It is also an important time for TxDOT and local jurisdictions to coordinate on right-of-way needs to ensure that future development (or redevelopment) of the parcel is coordinated with future improvements planned for the roadway.

Workshop attendees get hands-on experience reviewing plats for land use and traffic flow. Involving TxDOT at the platting stage helps ensure a smooth completion process and better traffic flow.

"Early involvement in the process is especially helpful, particularly for fast-growing, urban districts like ours," says Brian Barth, director of Transportation Planning and Development for TxDOT's Dallas District. "Involving TxDOT in the process during the preliminary plat stage, when there is still some flexibility, is beneficial for everyone involved."

Echoing those sentiments, Mark Marek, TxDOT's Design Division director, stresses the importance of coordination throughout the development process.

"Having a cooperative effort between state and local entities during the development stage precludes many problems later on," says Marek.

While cities and counties have historically been responsible for reviewing and approving subdivisions and land development in Texas, TxDOT remains responsible for access and right-of-way along state roads. Therefore, a relationship between the developer, the local entity in charge of approving plans and TxDOT is key to a smooth process for land development.

In a survey of Texas cities, nearly two-thirds of the cities surveyed already include TxDOT in the plat review process to some degree. The implementation workshops were based on TxDOT-sponsored research. The TTI-led workshops hope to encourage an even higher percentage of involvement and coordination between TxDOT, cities, counties and developers.

Workshops spread the word

Ed Hard, TTI associate research scientist, and Bill Eisele, TTI associate research engineer, teamed up to conduct "TxDOT Involvement in Local Development Review" workshops in the TxDOT districts of San Antonio, Tyler, Pharr, El Paso, Corpus Christi, Lubbock, Bryan, Houston and Dallas.

Hard and Eisele designed the workshops to help attendees learn more about research findings on this topic and to explain the benefits and importance of involving TxDOT early in the land development process.

"Our main objectives for the workshop were to provide TxDOT with insight to the local development process, show how local decisions impact state facilities, and to stress the importance of TxDOT-local coordination in the planning stages of development," says Hard. "The workshops are targeted for TxDOT employees, but planners and engineers from local jurisdictions were also invited in order to discuss current local TxDOT cooperative efforts and potentially how these could be improved."

The team-taught workshops explained how TxDOT can coordinate with cities, counties and other local entities, including reviewing plats and site plans for access, right-of-way issues, driveways and traffic flow.

"It's not possible to talk about the importance of TxDOT involvement in the process without talking about access management," says Eisele. "Access management involves planning and coordinating the location, design and operation of driveways together with internal roadway design features such as turn lanes, median treatments, and median openings. Applying these concepts, which are detailed in both the TxDOT Access Management Manual and TxDOT Roadway Design Manual, is crucial to the land development process."

City officials from the area, various TxDOT employees and county representatives were on hand for a workshop held recently at the Dallas District office. Attendees got a hands-on look at how complex planning for access can be and how competing interests or landowners can present real problems in need of coordinated solutions.

Early involvement pays off

The workshops in the districts allowed Hard and Eisele to emphasize meaningful benefits of involving TxDOT early in land development. Such benefits include:

- coordinated traffic flow through developed areas and along corridors,
- better, more integrated decision making and land use planning,
- increased input during planning stages on local decisions that will impact TxDOT facilities, and
- better protected or preserved state right-of-way.

TxDOT has funded workshops in 10 additional districts in the upcoming year. R

MORE INFORMATION

For more information, please contact Ed Hard at (979) 845-8539 or e-hard@tamu.edu;
Bill Eisele (979) 845-8550, or bill-eisele@tamu.edu

(L–R): Mark Marek, TxDOT Design Division Director ; Bill Eisele, TTI; Ed Hard, TTI.

RELATED PUBLICATIONS

Report 4126-1, 4429-1, *Methods and Benefits of TxDOT Involvement in Local Development Review*.

Report 4429-S, *Benefits of TxDOT Involvement in Local Development Review.*

Report 4429-P1, *Guidelines and Recommendations for TxDOT Involvement in Local Development Review.*

Plenty of Room for Research

Southwest Center for Transportation Research and Testing opens for business

The 9-mile, 3-lane high-speed track that circles the complex allows testing for speeds up to 200 miles per hour.

The West Texas town of Pecos is normally associated with cattle trails, rodeos and cantaloupes. But this desert town is also home to a 5,800-acre former tire testing facility ripe for development into a world class transportation research and testing center.

Applied Research Associates (ARA), the Pecos Economic Development Corporation (PEDC) and the Texas Transportation Institute (TTI) recognized the potential of the sprawling facility and are collaborating to develop the complex, known as the Southwest Center for Transportation Research and Testing (SCTRT). The unique public-private collaboration began in August.

"The SCTRT means potential growth for ARA. We will have the ability to do some additional consulting and engineering work within the Department of Defense," says Harold Von Quintus, principal engineer at ARA. "The other thing that was the most important to me was having the opportunity to continue working with TTI."

The facility, located 17 miles east of Pecos and last used by Smithers Scientific in 2000, was given to the Pecos Economic Development Corporation, and they began efforts to market the facility in 2003.

"The chairman of our board, Joe Keese, whose father was one of the original directors of TTI suggested that we contact them and market the potential use of the facility," says Mike Burkholder, president of PEDC. "They, in turn, contacted ARA and in July 2004 viewed the facility, and that's when we began negotiations."

"The Pecos facility offers many potential opportunities and amenities that TTI does not currently have," says Lance Bullard, associate research engineer with TTI. "The location and vastness of the facility gives researchers new opportunities to perform research in areas that are both environmentally severe and environmentally sensitive. The remoteness of the location offers privacy for testing that sponsors are beginning to find attractive for developmental work. In addition, homeland security research is growing exponentially and often requires the availability of large secure testing facilities. The Pecos test track facility can satisfy all of these needs."

About the facility

Built in 1961 by B.F. Goodrich as a tire testing facility, the Pecos facility includes the following:

- 9-mile, 3-lane high-speed track (circle) for speeds up to 200 mph;
- 10.1-mile El Camino road course;
- 1,200-foot by 108-foot skid pad with 1.5-mile approach road;
- off-road courses which include crushed rock, gravel, caliche and cutting stone services;
- structure durability loop;
- 1,000-foot Belgium-block course;
- 1.2-mile serpentine road course;
- lateral acceleration circles;
- 400-foot city course squares; and
- salt bath pit.

There are also numerous buildings on the site, including a 30-bay garage and administrative offices with storage areas. Considerable undeveloped land on the site can accommodate the development of additional facilities.

Diverse research and testing potential

Over the years, many auto manufacturers, tire companies and component manufacturers have tested vehicles and equipment at the complex. The complex has the potential to perform diverse types of research in many areas of transportation including:

- vehicle, tire and component testing;
- safety;
- environment;
- pavements;
- human factors;
- intelligent transportation systems;
- vegetation management; and
- retroreflectivity.

One of the first projects at the Pecos facility will assess driver distraction due to in-vehicle video systems. TTI researchers will use the facility's closed road course to conduct this research.

"When Joe Button (TTI senior research engineer) and I first heard of the site, we had been talking about looking into creating an accelerated pavement testing facility at Riverside, but there was not enough land," says Von Quintus. "But when we toured the facility, I realized that doing accelerated pavement testing at this site may serve our needs."

Additionally, TTI has been working with the Petroleum Engineering Department at Texas A&M University to tentatively perform a research project that will investigate transportation methodologies and equipment for moving in and setting up oil drilling platforms in environmentally sensitive areas without disturbing the surroundings or leaving a footprint.

TTI Research Scientist Sue Chrysler has been awarded a project entitled "Assessing Driver Distraction Due to In-Vehicle Video Systems." This project will compare driving performance with and without a video screen present at the facility's closed road course.

On the horizon

The research and testing possibilities at the sprawling Pecos facility are as vast as the West Texas sky. When President George Bush signed the Transportation Bill into law August 10th, $1 million was earmarked for the center. The funding was made possible with the assistance of U.S. Senator John Cornyn of Texas.

"Our goals are to develop the Southwest Center for Transportation Research and Testing into a nationally recognized research test facility with our new research alliance and colleagues at Applied Research Associates, develop new areas of research for TTI and form new research alliances with private industry," says Bullard.

"We could not be more excited about getting TTI and ARA involved in our community," says Burkholder. "We see unlimited potential for the facility, and we think TTI and ARA feel the same way." R

MORE INFORMATION

For more information, please contact Lance Bullard at (979) 845-6153 or l-bullard@tamu.edu.

Seeking an answer

Central Texas stakeholders explore regional transportation operations as a potential for cracking congestion

It's only a matter of time; at least that's what some think. Movie marquees around town might as well declare "See the Grand Opening of Congestion! Coming soon to a street near you." But what if the key transportation decision-makers in your town made a pact to tackle congestion before it crept in? How different might the picture of rush-hour traffic look in ten years? Or fifteen?

Just this kind of proactive coalition of transportation stakeholders has come together in a region of central Texas known as the Brazos Valley. The Texas Department of Transportation (TxDOT), the Cities of Bryan and College Station, Texas A&M University (TAMU), Brazos County and the Texas Transportation Institute (TTI) recently signed a memorandum of understanding (MOU) that affirms their commitment to get a jump on congestion in the Brazos Valley before it becomes a congestion crisis.

The MOU establishes a commitment to work together between the Brazos Valley's most significant transportation decision-makers. The signatories place keen importance on exploring the potential of developing a regional concept for transportation operations and leveraging TTI's TransLink® Laboratory as a transportation management and operations center—much like the sophisticated traffic control centers that exist in Houston, San Antonio, Dallas and El Paso.

"Working with the cities, the county, the university and TxDOT, TTI will explore how regional resources and systems, including our TransLink® research laboratory can be used to facilitate traffic operations (controlling signals and signs) to ensure smoother traffic flow," says Dennis Christiansen, TTI's deputy director. "The study TTI is undertaking will identify implementation issues, costs, and benefits of such an action. Using TransLink® may provide an opportunity where all parties can leverage resources and accomplish something that no one entity could accomplish individually."

The broad coalition of stakeholders, focused on operating the transportation from a regional perspective, could serve as a model for other growing communities looking to head off congestion before it arrives. Bryan and College Station draw visitors from not only major metropolitan areas within Texas (such as Houston, Austin and the DFW Metroplex), but also around the nation and the world. Like other communities that serve a large, growing university, the student and professional staff population at TAMU ensures that the region will continue to see heavy demand on its traffic infrastructure.

Traffic management and TransLink®

TransLink® Research Center Director Kevin Balke says this research facility could provide the Brazos Valley a unique, trend-setting opportunity to aggressively tackle congestion.

"This agreement helps us get ahead of the congestion curve, which is important in a growing community of our size (150,000+)," says Balke. "We have a unique opportunity to integrate the resources of a top-notch research facility with the existing transportation operations infrastructure to tackle congestion from a regional perspective."

Among TransLink's® most visible features are the more than 30 desktop monitors and the video wall, all of which are able to display real-time data and images.

The video wall is comprised of eight screens that create a large, rectangular viewing surface more than 5 feet in height and 13 feet in length. The real-time pairing of traffic data and images allows operators to compare the data they're getting with current operations on the streets and highways.

The facility is also capable of monitoring train traffic and controlling (in simulation tests) Intelligent Transportation Systems (ITS), which most drivers see as changeable message signs and colored lane arrows along roadways.

"The presence of TTI research facilities and staff makes certain options available in the Brazos Valley that otherwise would never be possible in an area of this size," says Christiansen.

The work ahead

The MOU between TxDOT, Brazos County, the cities of Bryan and College Station, TAMU and TTI is paired with a concept of operations study funded by these stakeholders—the ultimate goal of which is to promote operating the transportation system from a regional perspective as opposed to a collection of loosely connected, uncoordinated systems.

"This agreement helps us get ahead of the congestion curve, which is important in a growing community of our size (150,000+),"

TransLink® Research Center Director Kevin Balke

But TTI will tackle the congestion question by first developing a regional concept for transportation operations for the Brazos Valley (i.e. determining local needs) and by exploring TransLink's® potential as a regional traffic management center.

Tasks laid out to accomplish these objectives include:

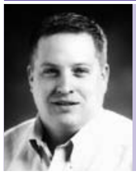
- conducting an inventory of existing transportation management systems and future plans for such systems;
- developing a concept for operating and managing traffic operations regionally in the Brazos Valley;
- identifying the facility, equipment, system and service improvements needed throughout the region;
- estimating the benefits from implementing traffic operations strategies;
- identifying the agreements, procedures and resources needed to implement regional operations; and
- developing recommendations for stakeholders.

Early steps

The recently signed MOU and related concept study establishes a lasting commitment to get ahead of the congestion curve.

"It may not seem like we have a bad congestion problem, but by being proactive and planning our transportation systems –by working together as a community—we can have the infrastructure and operating philosophies in place before congestion becomes a critical issue for our community," says Balke.

He adds that the project begins a process that will hopefully answer what the transportation management and regional operation system of the future will look like in Central Texas. R



MORE INFORMATION

For more information, please contact Kevin Balke at (979) 845-9899 or k-balke@tamu.edu.

PARTNER VIEWPOINTS

BRYAN WOOD, Bryan District Engineer
Texas Department of Transportation

"The recently signed Memorandum of Understanding is the first step in the process of possibly setting up a linked Intelligent Transportation System (ITS). All of the local electronic data regarding our transportation system could be gathered from each participant to be combined into a regional system of data available to all participants. All users of the transportation system in the Brazos Valley stand to benefit from a linked ITS. It has always been TxDOT's position that not only do the users benefit from such a link but also local emergency response officials such as police, fire and EMS. There are literally hundreds of benefits to a linked ITS. Some of the greatest benefits of such a combined system are emergency response time reduction, re-routing of traffic around congested or stopped traffic by real-time communication with drivers, major local event traffic coordination, improved traffic signal timing response to real-time demand, train routing communicated to local EMS, improved transportation planning and a reduction of the duplication of efforts by regional agencies. Although ultimately there may be a cost associated with linking and maintaining this linked system, the reduction in cost realized by some of this linked system's benefits may offset those costs. My hope is that this first step will let us see what we are missing in this community by not having this system already in place. My goal is to have a seamless regional transportation system for the Bryan-College Station area, and I see this as a first step to getting that goal accomplished."

CHARLES SIPPIAL, Texas A&M University
Vice President for Administration

"The university, cities and county really appreciate TTI volunteering to support a local traffic management system for our area. It will be especially helpful when there are major events on campus and in the local area. Because TTI is here with all the technology and expertise, we benefit with only a small investment. This effort is fully supported by the MPO. Our hat is off to TTI for being a great community partner.

RON SILVIA, Mayor
City of College Station

"Through a cooperative agreement with the Texas Department of Transportation, Brazos County, the City of Bryan, and Texas A&M University, the City of College Station embarks on the unique opportunity to improve transportation operations and safety through the intelligent transportation systems of the Texas Transportation Institute (TTI). With the collaborative effort of the various agencies in the Brazos Valley, a central location for sharing, analyzing and distributing traffic and transportation related research information through TTI would be provided for implementing various traffic management strategies."

ERNIE WENTRCEK, Mayor
City of Bryan

"I don't think you can place a value on having TTI's research laboratory essentially in our backyard. Bryan and College Station are growing at such a rapid pace that we're being forced to look at our transportation needs well into the future. By TTI offering its regional transportation operation concept, we can get a real jump on things."

Creating toll-revenue sharing opportunities

The need for additional roadway funding seems to keep increasing in Texas' major cities. More cars on the road lead to more demand for new roadways, yet the agencies funding this growth do not always have enough resources to keep up. An innovative partnership concept developed by the Texas Department of Transportation (TxDOT) Dallas District, North Central Texas Council of Governments (NCTCOG), and North Texas Tollway Authority (NTTA) could finance new roads and benefit all the stakeholders involved.

Traditionally, funding for regional roadway projects in Dallas comes from one of three sources:

- TxDOT (tax based);
- NCTCOG, the metropolitan planning organization (MPO) (tax based); or
- NTTA, which oversees a system of bond-funded toll roads (fee based).

The new approach—called the Metroplex Toll Financing System (MTFS)—would also use toll roads but would create an opportunity for local entities to partner with TxDOT and NTTA. TxDOT and NTTA, who have tolling authority in the Dallas-Fort Worth area, would allow other regional public entities to invest in nearby toll projects. The partners would all share in the return on investment, in addition to getting additional roadways faster than with the traditional method. MTFS would be separate from the existing NTTA tolling system.

For example, if a candidate project benefits a city, the city could invest in the project. If the city contributes 10 percent of the funding for the project, then the city would receive 10 percent of any surplus revenues from the project, which are those funds that remain after annual construction, operations and maintenance costs have been paid.

In order to take MTFS to the next step—implementation—TxDOT has to communicate the concept to potential stakeholders so that they can make informed decisions. The Texas Transportation Institute (TTI) worked with the Dallas District to create materials that would explain the concept to both technical and lay audiences, such as local leaders, city council members, county commissioners, transportation engineers, financial staff and city planners, as well as the general public. In addition to talking to stakeholders, TTI listened to them.

"We met with TxDOT, NTTA, and NCTCOG, to be sure their thoughts are reflected in the communications materials," says Bill Stockton, TTI associate agency director. "We're in the decision support business, and we have to communicate sufficiently well to allow the intended audience to make informed decisions."

Communities' initial reaction to tolling is often negative or skeptical, because they feel that they should not have to pay more for new roadways. With MTFS, however, the revenues would be reinvested in the local community, paying for other non-fee roads they could not otherwise afford.

"TTI has taken a somewhat complex concept and molded a document that local officials can use to help educate the people they represent. Their ability to simplify the matter on paper has been very instrumental in getting local buy-in for tolling roadways in the Dallas Area," says Bill Hale, TxDOT district engineer for the Dallas area.

MORE INFORMATION

For more information, please contact Bill Stockton at (979) 845-9947 or bill.stockton@tamu.edu.

Transportation Hall of Honor inducts three new members

Left to right: Doug Pitcock, Jr., Janie McDougal accepting on behalf of E. Neveille Colson, and Ray Stoker, Jr.

Last July, TTI honored three long-time public servants for their contributions to transportation throughout Texas, making E. Neveille Colson, Doug Pitcock, Jr. and Ray Stoker, Jr. the three newest members of the Texas Transportation Hall of Honor.

The three were recognized during a ceremony and luncheon featuring State Senator Todd Staples, chairman of the Senate Committee on Transportation and Homeland Security, and several past Hall of Honor inductees.

Colson, a native of Bryan, was the first woman elected to both chambers of the state Legislature, serving in the Texas House of Representatives from 1939 to 1948 and the Texas Senate from 1948 to 1966. She introduced the Good Roads Amendment that dedicated 75 percent of road user taxes to the building and maintenance of Texas highways, and also co-sponsored the Colson-Briscoe Act, providing an expansive network of rural paved highways throughout the state. Those Farm to Market roads, designed to move rural transportation and mail delivery "out of the mud," as Colson said, now comprise more than half of the state's roadway system.

Stoker, a lifelong resident of Odessa, is one of only four people named to the state transportation commission by two different governors—Governor Mark White in

Upper left: Mark Stiles.

Upper right: Robert C. Lanier.

Bottom: Ray Barnhart, John Butler, Doug Pitcock, Janie McDougal, Ray Stoker, David Laney and Robert C. Lanier.

1985 and Governor Ann Richards in 1991. He helped lead successful initiatives to boost the state motor fuel tax in 1986, 1987 and 1991, and was instrumental in the development of the Texas Highway Trunk System, a 10,500-mile network of rural highways. He is credited with expanding TxDOT's scope through the establishment of new divisions focused on civil rights, environmental affairs, aviation and public transportation. He was the longest-serving chairman of the Texas Good Roads / Transportation Association, leading that organization from 1993 to 2003.

Pitcock, along with Claude and John Williams, formed Williams Brothers Construction Company in Houston in 1955. He currently serves as owner, chairman and chief executive officer of the company, which is one of the largest highway and heavy construction contractors in the nation. Pitcock chaired the Houston Chamber of Commerce Transportation Committee, was twice president of the Texas Highway Branch of the Associated General Contractors (AGC), and served as national president of AGC in 1984. He was named to the National Transportation Policy Study Commission by President Gerald Ford. A distinguished civil engineering alumnus of Texas A&M University, Pitcock has been named one of the "Top 100 Private Sector Transportation Construction Professionals of the 20th Century" by the American Road and Transportation Builders Association.

The Texas Transportation Hall of Honor, established in 2000, was set up to recognize in a formal and permanent manner those visionary leaders who have helped to provide Texas with an outstanding transportation system.

"The Hall of Honor is intended to recognize that small group of people whose exceptional leadership and vision made possible the outstanding transportation system we enjoy in Texas today," TTI Deputy Director Dennis Christiansen said during the induction ceremony. "Past, present and future Texans owe many thanks to Neveille Colson, Ray Stoker and Doug Pitcock for the lasting impact they've had on our great state." R

Kingsville MOA

Herbert Richardson of the Texas Transportation Institute (TTI) and Rumaldo Juarez, president of Texas A&M University-Kingsville (TAMUK) have renegotiated a Memorandum of Agreement between their institutions. This agreement provides for the continuance of a regional research, service and technology transfer division of TTI at Texas A&M University-Kingsville headed by the Dean of Engineering, John Heenan, or his designee.

This regional division will enhance the ability of TTI to carry out its responsibilities as a state agency affiliated with higher education focused on transportation issues.

The continuation of this TTI division at Texas A&M University-Kingsville will build and further enhance the collaboration that has developed over the past several years. For example, TTI and TAMUK have successfully cooperated to develop and deliver Summer Transportation Institute programs in 2004 and 2005. Debbie Jasek from TTI and Hector Estrada from TAMUK joined efforts to introduce interested high school students in South Texas to a variety of transportation concepts, activities and career opportunities.

(Bottom row) Herb Richardson, TTI Director; Rumaldo J. Juarez, President TAMUK; William Heenan, Dean, College of Engineering, TAMUK. (Top row) Hector Estrada, Head, Department of Civil Engineering, TAMUK; Dock Burke, TTI Director of External Programs.

"As with our other TTI regional divisions, at TAMUK we look for opportunities to find and pursue mutually advantageous initiatives in transportation education, research and outreach," said Dock Burke, TTI's director of External Programs. Burke noted that in addition to Texas A&M University at Kingsville, TTI's Regional Division membership includes: West Texas A&M University at Canyon; Texas A&M International University at Laredo; Texas Southern University in Houston; Lamar University in Beaumont; Prairie View A&M University at Prairie View; Texas A&M University at Galveston; and Texas A&M University at Commerce.

Aggie congressman at TTI

U.S. Rep. Chet Edwards (D)

For 1974 Texas A&M University graduate and "Earl Rudder Outstanding Student" award winner U.S. Representative Chet Edwards (D), a trip from Washington D.C. to Aggieland is very much a trip back home.

Edwards, who lives in Waco, represents the 17th Congressional District in central Texas, which encompasses parts of Fort Worth, Waco and Bryan/College Station. Edwards spoke at a meeting of the Brazos Valley Section of the Institute of Transportation Engineers (BVITE) during his late August visit to TTI. He detailed the congressional mechanisms to fund highways and explained aspects of the nearly $10 million in earmarks he secured for the Brazos Valley. These earmarks include:

- $2.4 million to widen University Drive (FM 60) from State Highway 6 (SH 6) to FM 158. This project will reduce traffic congestion along this economic development corridor that services Texas A&M University and the Bush Library.
- $2 million widening project on Old Reliance Road Overpass at SH 6 (Earl Rudder Freeway) that will help provide the needed infrastructure improvements in the area around the new school that is to be built in Bryan.
- $2.4 million Barron Rd. Interchange at SH 6 (Earl Rudder Freeway). This project will allow the SH6 to bypass the traffic on Barron Rd. improving traffic safety and increasing economic development opportunities.
- $3 million for the Bryan Bus Terminal and Parking Facility. This facility will serve local public transit needs, Greyhound's inter-city services and provide office space for Brazos County.

"I'm not going to get invited to Tim Russert's NBC Sunday Morning Talk show in Washington, D.C. for working on Old Reliance Road, Barron Road and University Drive," says Rep. Edwards. "But frankly it's these kinds of projects where I can have a direct impact on economic development and quality of life for families in our district."

New TTI overview brochure available

The Texas Transportation Institute (TTI) has recently published an updated overview brochure. This comprehensive document covers topics such as workforce development, research projects, facilities and the legacy of TTI research over the years.

To obtain a copy of the brochure, please contact Beth Mathis at (979) 845-1734 or b-mathis@tamu.edu. The brochure is also available online in three languages: English, Spanish and Chinese. To view a PDF, please visit http://tti.tamu.edu/inside/factsheet/brochure.stm.

Charles Bell retires from TTI

Charles Bell, systems analyst in the Transportation Planning group, retired from TTI after 38 years of service with the Institute.

TTI Director Herb Richardson and Associate Agency Director Katie Turnbull present Charles Bell (center) with a retirement clock.

Bell began his career at TTI working in 1967 as a data processing programmer. He was eventually promoted to a systems analyst. Bell was instrumental in the design and implementation of computer programs used in travel demand modeling and air quality analysis.

"Charley filled a role in TTI that has been underappreciated for many years," remarked Institute Deputy Director Dennis Christiansen during Bell's retirement party in July. "A lot of respect that TTI has in the area of transportation planning is because Charley figured out how to make it happen. He was a true professional."

Among the gifts Bell received at his retirement ceremony were a clock, a wooden gift box and a Best Buy gift certificate.

In memoriam

Patrick McDonald McConal, a 20-year employee of the Texas Transportation Institute (TTI), died in Bryan on Thursday, July 21. He was 43.

Pat was a beloved employee of TTI. He ran the reproduction area of TTI Communications, and in that capacity met just about everyone in the Institute at one time or another. Pat was the kind of guy that could talk to the Institute director or System cleaning staff with equal ease while serving them a bowl of his famous chili.

Pat published a book, *Over the Wall: The Men Behind the 1934 Death House Escape*, which was hailed as a "must for anyone interested in Depression-era outlaws." *Over the Wall* examines the escape of some of Bonnie and Clyde's cohorts from the Huntsville Walls unit. Using public records, newly discovered photographs and first-hand accounts from surviving participants, the book recounts a fascinating history of the events leading up to the men's capture, their incarceration and ultimately their final punishment. Pat's emphasis on realism and disdain for drama for its own sake in the book describe, in a way, his approach to life: Take it as it comes, don't complain about it, make the best of what you've got and be glad you've got it.

One story shows just how much Pat enjoyed experiencing history firsthand. "Pat was giving a paper for the East Texas Historical Association's autumn meeting one year in Nacogdoches," explains Ty Cashion, Pat's master's chair at Sam Houston State University (SHSU). "Sometimes someone will play the role of a historical personality, but I'd never seen anyone do it with as much panache as Pat. So, there I was bright and early, sitting on the front porch of the house reading the newspaper, and here comes Pat, pushing through the screen door, all duded up in a pin-striped suit, spats and a Fedora, and carrying a Tommy-Gun." Though Pat lacked his thesis toward his master's degree from SHSU, the school has decided to grant it posthumously thanks to the efforts of Cashion and others.

Pat McConal presides over a pot of his famous chili. McConal passed away in July at the age of 43.

As a master storyteller, Pat always had an anecdote to share and would sit and listen, fascinated, to yours as well. One friend said he could picture Pat talking to God now and God, being busy, might be glancing at His watch from time to time. Undoubtedly Pat would respond, as he so often did, "OK, just one more thing and I'll leave it alone. . . ."

We'll miss you, Pat.

The Back Road

As we welcome students back for another academic year, researchers at the Texas Transportation Institute (TTI) are engaged in a number of projects that will help fashion the future of Texas transportation and which demonstrate the value of public/private partnerships. This issue highlights the work of several teams looking at topics as diverse as the feasibility and technological options for high-speed rail, regional approaches to managing traffic congestion and better ways to analyze the causes of work zone crashes.

With fuel prices on the rise, high-speed rail has emerged once again as a topic of discussion in Texas. The Institute is conducting some background research to help determine the financial and technological feasibility of high-speed rail systems in Texas. Another innovative partnership is tackling congestion in our own backyard: the Brazos Valley. TTI has joined with TxDOT, the cities of Bryan and College Station, Texas A&M University and Brazos County to look at how TTI's TransLink® Laboratory can help facilitate traffic operations in a way that supports all transportation entities in the area.

Another item of interest in this issue is the opening of a new world class research and testing facility in Pecos, Texas. TTI partnered with Applied Research Associates and the Pecos Economic Development Corporation to develop 5,800-acre former tire testing facility into the Southwest Center for Transportation Research and Testing. The unique public-private collaboration began in August.

This issue also highlights the latest inductees into the Texas Transportation Hall of Honor, which was established to honor those visionary leaders who have helped Texas develop its outstanding transportation system. This year's honorees include Ray Stoker, Doug Pitcock and Neveille Colson, the first woman elected to both the Texas House and Senate and now the first woman inducted into the Hall of Honor. Colson co-sponsored the Colson-Briscoe Act with another Hall of Honor member, former Governor Dolph Briscoe, which created the Farm to Market road system so crucial to the state's economy.

We look forward to another challenging and rewarding academic year and to a continued expansion of our research program as we strive to serve the public and private transportation industry in our state. As always, we appreciate your interest and support for the Institute.

Herb Richardson

Texas Transportation
Researcher

Texas Transportation Institute (TTI)/TTI Communications
The Texas A&M University System

Publisher/Director, TTI	Dr. Herbert H. Richardson
Editor	Kelly West
Managing Editor	Chris Sasser
Writers	Penny Beaumont Michelle Benoit Chris Pourteau Chris Sasser Brandon Webb
Designer	Stacy Schnettler
Photographer	James Lyle
Art Director	John Henry
Proofreader	Beverly Gracia

Texas Transportation Researcher is published by the Texas Transportation Institute to inform readers about its research, professional and service activities. Opinions expressed in this publication by the editors/writers or the mention of brand names does not necessarily imply endorsement by the Texas Transportation Institute or The Texas A&M University System Board of Regents.

Texas Transportation Researcher (ISSN 00404748) is a quarterly publication of TTI Communications, Texas Transportation Institute, The Texas A&M University System, 3135 TAMU, College Station, Texas 77843-3135. For more information or to be added to the mailing list, contact this address, call (979) 458-8834, or e-mail Nancy Pippin at n-pippin@ttimail.tamu.edu. Periodicals postage paid at College Station.

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TTI Communications
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The Texas A&M University System
3135 TAMU
College Station, TX 77843-3135

TTI.RESR0503.0905.3700

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