Interim Report
to the 86th Texas Legislature

House Committee on Transportation

November 2018

HOUSE COMMITTEE ON TRANSPORTATION
TEXAS HOUSE OF REPRESENTATIVES
INTERIM REPORT 2018

A REPORT TO THE
HOUSE OF REPRESENTATIVES
86TH TEXAS LEGISLATURE

REPRESENTATIVE GEANIE W. MORRISON
CHAIRMAN

COMMITTEE CLERK
MACGREGOR M. STEPHENSON

Committee On
Transportation

November 27, 2018

Representative Geanie W. Morrison
Chairman

P.O. Box 2910
Austin, Texas 78768-2910

The Honorable Joe Straus
Speaker, Texas House of Representatives
Members of the Texas House of Representatives
Texas State Capitol, Rm. 2W.13
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Transportation of the Eighty-fifth Legislature hereby submits its interim report including recommendations and drafted legislation for consideration by the Eighty-sixth Legislature.

Respectfully submitted,

Representative Geanie W. Morrison

Vice-Chair Armando "Mando" Martinez

Representative Cindy Burkett

Representative Yvonne Davis

Representative Craig Goldman

Representative Celia Israel

Representative Ina Minjarez

Representative Joseph Pickett

Representative Ron Simmons

Representative Ed Thompson

Representative Senfronia Thompson

Representative John Wray

Armando "Mando" Martinez
Vice-Chair

Members: Cindy Burkett, Yvonne Davis, Craig Goldman, Celia Israel, Ina Minjarez, Joseph Pickett, Ron Simmons, Ed Thompson, Senfronia Thompson, John Wray

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TABLE OF CONTENTS

HOUSE COMMITTEE ON TRANSPORTATION

Introduction

The Honorable Joe Straus, Speaker of the House of Representatives, appointed thirteen members of the 85th Legislative to serve on the House Committee on Transportation. The following members were named to the committee: Chairman Geanie W. Morrison, Vice-Chairman Armando "Mando" Martinez, Representative Cindy Burkett, Representative Yvonne Davis, Representative Craig Goldman, Representative Celia Israel, Representative Ina Minjarez, Representative Larry Phillips, Representative Joseph Pickett, Representative Ron Simmons, Representative Ed Thompson, Representative Senfronia Thompson, and Representative John Wray. Representative Phillips resigned his seat in the House of Representatives on April 30, 2018.

Pursuant to House Rule 3, Section 36, The House Committee on Transportation has jurisdiction over all matters pertaining to:

1) commercial motor vehicles, both bus and truck, and their control, regulation, licensing, and operation;
2) the Texas highway system, including all roads, bridges, and ferries constituting a part of the system;
3) the licensing of private passenger vehicles to operate on the roads and highways of the state;
4) the regulation and control of traffic on the public highways of the State of Texas;
5) railroads, street railway lines, interurban railway lines, steamship companies, and express companies;
6) airports, air traffic, airlines, and other organizations engaged in transportation by means of aerial flight;
7) water transportation in the State of Texas, and the rivers, harbors, and related facilities used in water transportation and the agencies of government exercising supervision and control thereover;
8) the regulation of metropolitan transit; and
9) the following state agencies: the Texas Department of Motor Vehicles, the Texas Department of Transportation, and the Texas Transportation Commission.

Speaker Straus has charged the House Committee on Transportation to study nine distinct charges and make recommendations regarding any findings related to those charges to the 86th Legislature. The specific charges are as follows:

1) Review the state's response to Hurricane Harvey and natural disaster preparedness with respect to the transportation system and transportation infrastructure. Make recommendations for improving agency operations related to emergency preparedness and response.
2) Study the ability of the Texas Department of Transportation (TxDOT) to deliver highway construction projects that reduce congestion and improve mobility, including the Department's options and limitations related to contracting. Make recommendations to improve the Department's ability to complete complex projects on time and under cost.

3) Study the efficacy of existing transportation finance mechanisms from state, regional, and local perspectives. Identify opportunities to improve existing transportation finance mechanisms and investigate the feasibility of developing new ones.
4) Study Texas' various toll road authorities and evaluate their transparency and stakeholder responsiveness. Make recommendations to improve the state oversight of toll authorities.
5) Review the management of the oversize/overweight permitting system and ensure that the state is adequately protecting the driving public and road integrity. Make recommendations to improve operations.
6) Study emerging issues in transportation related to technology and evaluate the state's preparedness for addressing challenges and opportunities posed by technological advances. Review the implementation of state and federal programs and legislation related to intelligent transportation systems, autonomous vehicles, unmanned aircraft systems (i.e. drones), and other technological changes.
7) Review the current state of infrastructure at Texas' international shipping ports and border ports of entry in Texas. Identify transportation-related impediments to international trade and estimate the impact of those challenges, including border wait times, on the state's economy. Make recommendations for improvements to facilitate international trade and economic growth.
8) Evaluate the impact energy exploration and production have on state and county roads and make recommendations on how to improve road quality in areas impacted by these activities.
9) Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 85th Legislature. In conducting this oversight, the committee will also specifically monitor the implementation of the TxDOT Sunset legislation and related management actions.

The Committee held six public hearings to consider these charges and to take invited testimony. During the course of these hearings, the Committee heard from more than seventy-five witnesses addressing the nine specific charges. In addition to the oral testimony, written testimony was also provided on specific charges and was considered in the development of findings and recommendations.

Background Information

To understand the challenges facing Texas and its efforts to maintain and expand its transportation infrastructure, it is essential to also look at the population growth that the state has experienced. Between 2010 and 2016 Texas had the nation's largest population growth in each of those years.[1] The total population increased from 2010 to 2017 by three million, one-hundred fifty-eight thousand, four-hundred and ninety-six.[2] The metropolitan statistical areas of Austin-Round Rock, Dallas-Fort Worth-Arlington, Houston-The Woodlands-Sugar Land, and San Antonio-New Braunfels led the way in population growth during this time.[3] Texas has five of the top fifteen most populous cities in the country as of July 1, 2017, and seven of the fifteen fastest growing cities with a population greater than fifty-thousand.[4] These factors have led to population projections indicating that Texas will continue to grow to as many as 42 million residents by 2050[5].

A longer look back at the population growth reveals that Texas's population increased by fifty-five percent between 1990 and 2013. The population grew from approximately seventeen million to approximately 26.4 million. During that same time period, the annual vehicle miles traveled (VMT) increased from 162.2 Billion VMT to two-hundred forty-three Billion VMT, an increase of 80.8 billion VMT, or 49.8%. By 2030, it is estimated that VMT will reach three-hundred four billion[6].

Texas has also experienced a significant increase in commercial activity related to the shipping of goods and services on both state road systems as well as through the Maritime Ports and the Border Ports. In 2016 total Texas freight volume was 2.2 billion tons. By 2045, it is estimated that the total freight volume will grow to 4 billion tons. This increase will be fueled by a number of factors including Texas population growth, increased productivity from industry and businesses, and increased shipping through the Panama canal.[7]

Both the increase in population and the increase in freight volumes will have a direct impact on Texas' transportation infrastructure. Existing roadways will need to maintained and upgraded, and new routes and roads will need to be developed to meet the dramatic increase in traffic volume and tonnage. These issues factor heavily in the charges that the committee sought to address.

CHARGE 1: *Review the state's response to Hurricane Harvey and natural disaster preparedness with respect to the transportation system and transportation infrastructure. Make recommendations for improving agency operations related to emergency preparedness and response.*

Committee Action:

The committee received testimony related to the impact of Hurricane Harvey on transportation systems and infrastructure as well as natural disaster preparedness on February 7th, 2018. Oral testimony was provided by individuals representing the following entities: Texas Department of Transportation, Texas Division of Emergency Management, Texas Ports Association, Union Pacific Railroad, and the County Judges for Harris, Orange, Fort Bend and Brazoria Counties. Written testimony was also provided by the County Judge of Aransas County.

Background:

TEXAS DEPARTMENT OF TRANSPORTATION

The Texas Department of Transportation (TxDOT) is responsible for critical operations prior to, during, and after natural disasters. Prior to disasters, TxDOT must ensure that there are sufficient roadways available for the use of the public to evacuate from an area expected to experience a natural disaster. These roads must be able to withstand the effects of the natural disaster to the best degree possible in order to protect the population in its movement away from the disaster.

One aspect of TxDOT's responsibilities at all times is to provide the public with highway conditions. One mechanism that is most efficient is the continually updated DriveTexas.org website. This website is designed to "provide accurate, timely highway conditions information." Through TxDOT employees and contractors, information of the status and conditions of roads throughout Texas are updated continually, twenty-four hours a day. During weather events and disasters, this website is a critical component of providing information to people in the affected area, to those who are attempting to bring supplies or rescue efforts into the area, to those seeking routes through or around the affected area, and for the identification of safe evacuation routes out of the area. DriveTexas.org received more than 5.1 million visits before, during and immediately after Hurricane Harvey. Testimony from Judge Sebesta of Brazoria County indicated that there needs to be a mechanism to allow for the roadway conditions from TxDOT's Drive Texas.org to be downloaded to the counties' Geographical Information Systems (GIS) to allow them to update their citizens regularly as well[8].

During disaster response, TxDOT also operates a travel information phone line which is staffed by TxDOT employees. Recorded road conditions are also available on a twenty-four hour basis. During and after Hurricane Harvey, the phone line received more than 163,000 calls.

TxDOT uses its dynamic messaging signs along the roads to warn travelers of the potential for dangerous conditions due to major weather events. These signs are used to warn of road closures, the availability of fuel and shelter, and to direct citizens to evacuation routes. One key advantage to these signs is that they can be activated, and the message updated, as necessary without having to be at the location, allowing for much quicker response and providing timely warnings to travelers. Although highly effective, there are only eight-hundred eighty-five large signs and two-hundred smaller ones across the state.

Evacuation of areas in advance of a weather event is a decision made by local officials. Once a decision has been made, TxDOT in coordination with the Department of Public Safety will activate their preset plans for the areas affected. This effort can include using highway shoulders as additional lanes. TxDOT and DPS will also provide for guidance and signage should local officials direct that contraflows will be activated, allowing both sides of designated highways to be used to evacuate citizens.

During an evacuation, TxDOT also works closely with the fuel stations with backup generators to ensure that evacuees have sufficient fuel to escape from the path of the storm, and works with the fuel industry to ensure that adequate supplies are reaching the stations. TxDOT also prepositions its own fleet of thirty fuel tanks at strategic locations to enable them to support emergency crews and stranded motorists.

Both prior to and during the disaster, TxDOT must be positioning equipment, personnel and supplies to be able to respond to emergency requirements as quickly as the disaster allows. It also works to clear lane closures, abandoned vehicles, and suspends construction and road maintenance in these areas to facilitate movement of vehicles out of the path of the disaster and to reduce the impediments to emergency response into the area. Immediately after the disaster, TxDOT must be able to coordinate with the Texas Department of Emergency Management (TDEM) to provide high-water vehicles which may be used during rescue operations if other agencies' resources are insufficient.

TxDOT must also begin the assessment of roadways affected by the disaster to determine accessibility of impacted communities, and ensure that first responders and emergency vehicles can access these communities by initially clearing roadways to the affected areas. This is a critical component to restoring access to the communities, but is also necessary to allow the electrical power crews to safely access these areas and to conduct their repair operations. The restoration of electricity transmission is a crucial step in allowing citizens to return to their homes and lives.

Many communities also do not have the resources or the systems in place to remove the debris that may have resulted from the disaster. Although most communities have contracts with debris removal service companies, many of these companies sought to renegotiate their contracts with the cities or simply chose not to honor them due to receiving higher compensation from other contracts, either in Texas or in other areas of the country affected by hurricanes. TxDOT, again working through TDEM, responded with equipment and personnel to requests from local jurisdictions to assist with the clearing and removal of debris from impacted areas. After Hurricane Harvey, TxDOT removed approximately 20.5 million cubic feet of debris.

Once initial response has been completed, TxDOT must then begin the effort of determining the need for repairs to roads, bridges and other infrastructure and develop an appropriate plan to bring these systems back on line as quickly as possible. These efforts include evaluating pavement, guardrails, signal lights, bridge supports and driving surfaces. After Harvey, more than five hundred roads were closed due to high water, and more than four thousand bridges were impacted. During Hurricane Harvey, many state highways faced continuing flooding in the Houston and Beaumont areas, creating continuing traffic control and local access issues.

TxDOT's responsibilities to evaluate evacuation routes that use interstate and state highway systems are an ongoing requirement. To that end, testimony was received that certain counties were faced with significant issues when evacuation routes were flooded. In some cases, these evacuation routes were forced to close due to short stretches of road which were impassable. Fort Bend County was limited to one primary evacuation route due to this type of flooding. Fort Bend County Judge Robert Hebert indicated that these closures were a significant impediment to evacuating medical care facilities and nursing homes which necessitated airborne evacuation of many of these individuals[9].

Another issue that was raised during Testimony from Judge Emmett of Harris County identified that truck traffic in Southeast Texas came to a standstill due to the flooding on the roadways. This precipitated a significant negative impact on commerce not only for Texas, but nationally. Judge Emmett also identified that concern that the Texas Medical Center was an island as the roads around it were all flooded. This required any critical movement of patients to be handled by helicopter which was limited due to the ongoing weather[10].

Local governmental entities have also identified the replacement of signs, signals and lights along roadways as an important part of the recovery effort. Many times, these entities were not able to obtain the necessary replacement devices in a timely manner. While ongoing relationships between entities allowed for the distribution of available resources, a more comprehensive and coordinated effort would be beneficial.

The costs associated with disasters are generally initially funded out of the existing TxDOT budget. During events like Hurricane Harvey, state and federal disaster declarations were made by Governor Abbott and President Trump. These declarations trigger eligibility for reimbursement for some expenses by the federal government. Although these funds become available through a variety of current programs, they also receive supplemental funding through appropriations from Congress after the disaster. While these funds can cover specific parts of the costs attributable to TxDOT operations, actions taken outside the areas designated by the federal disaster declaration or beyond the specific allowable purposes tied to the funding leave some TxDOT expenses non-reimbursable.

During Hurricane Harvey and its aftermath, TxDOT estimates that it incurred expenses of $66 Million for response mobilization, $110 Million for roadway damage, $10 Million for TxDOT building and ferry damage, and $6.2 Million for equipment costs. These funds were used to repair roads, bridges, signals, signs, the Port Aransas Ferry, TxDOT centers in Port Aransas and Beaumont, and for debris removal. TxDOT is seeking to recover a significant portion of these

expenses through FEMA and the Federal Highway Administration. The TxDOT response included more than one million work hours from almost five thousand employees.[11]

TEXAS MARITIME PORTS

Maritime ports in Texas represent one of the most significant economic drivers for its economy. Many of these ports faced significant impacts from Harvey, either through direct wind and/or surge impacts or through rainfall and flooding. Of significant concern is the amount of silt and debris that was carried down waterways to the various ports resulting in reduced depth of ship channels and a corresponding impact to the loading of ships and the availability of berths for deep draft ships that were fully loaded. This silting in of the ship channels results in limiting the cargo loads of ships so that they are not exceeding the restricted depth of the channels. To reduce weight, ships are required to travel without a full load, increasing costs, reducing efficiency, and increasing the number of vessels required. While these channels are under the primary jurisdiction of the U.S. Army Corps of Engineers, the impact to the state economy and future business growth is restricted by the reduced cargo capacity[12].

*Note: For additional Port Infrastructure Information, See also Charge 7.

Committee Recommendations:

1) TxDOT should identify existing evacuation routes on the state highway system which were impassable during Hurricane Harvey and determine whether limited elevation of flooded sections could alleviate evacuation concerns. If this is a viable solution, then elevation of these key sections should be incorporated into state highway planning and funding at the earliest possible time.
2) TxDOT should work with local governmental entities affected by disasters to ensure that traffic signs, signals and lights are able to be replaced as soon as possible following the event and to share available resources as necessary to fulfill this function.
3) TxDOT should work with city and county emergency management information systems to ensure that information regarding road conditions and closures is able to be relayed to these entities and shared with their citizens in an effective manner.
4) TxDOT in cooperation with the Texas Division of Emergency Management (TDEM) should identify and evaluate key civilian infrastructure such as the Texas Medical Center that must remain accessible to vehicle traffic and determine if there are any steps that could be taken on state highways to ensure that access. TxDOT should then incorporate these steps into state highway planning and funding.
5) Texas Maritime Ports should be supported in their efforts to obtain federal funding for the clearing and dredging of critical waterways that have been limited due to the effects of Hurricane Harvey.

Charge 2: *Study the ability of the Texas Department of Transportation (TxDOT) to deliver highway construction projects that reduce congestion and improve mobility, including the Department's options and limitations related to contracting. Make recommendations to improve the Department's ability to complete complex projects on time and under cost.*

Committee Action:

The committee received testimony related to this charge on April 17, 2018. Oral testimony was provided by individuals representing the following entities: Texas Department of Transportation, the Sunset Commission, the Association of General Contractors, the Metropolitan Planning Organization, and a representative of the Regional Mobility Authorities.

Background:

Currently, TxDOT maintains more than 80,000 miles of farm-to-market, ranch-to-market, state, U.S. and interstate highways[13]. In order to prioritize projects, TxDOT must weigh available funding with the existing and future transportation needs based upon population growth and traffic demands. The Texas Department of Transportation's (TxDOT) ability to deliver highway construction projects that reduce congestion and improve mobility is based upon the funding that is available for these projects, the types of contracts that can be utilized to develop, operate, maintain and fund the projects, and the management oversight and enforcement conducted by TxDOT.

TxDOT has significant challenges facing it with regard to contracting. It is second only to the Department of Health and Human Services in the number and amount of contracts awarded with more than $32 Billion in active contracts. With the increase in funding provided by Proposition 1 and Proposition 7, TxDOT is realizing an increase of almost double the funding that they have previously received and the corresponding increase in the number of contracts required to carry out the funded projects[14].

**Note: While Charge 2 addresses the issues related to the contracts that TxDOT may use, the sources of funding and alternatives are addressed in Charge 3.*

CONTRACT TYPES

Design-Bid-Build projects are separated into two distinct processes. The first provides a process by which TxDOT either develops internally, or contracts with a private contractor to develop, the plans, specifications, and estimate package and supporting documentation for the project. After this process has been completed, the design is then put out for bid to the contractors to actually construct the project[15]. This has been the traditional method for transportation construction projects since 1925. Design-Bid-Build contacts are anticipated to represent between $5.5 Billion and $6 Billion in the Unified Transportation Program in each year for the next ten years.

Design-Build contracts have been a more recent mechanism used to carry out transportation construction projects. In the design-build process, one contractor is hired to carry out both the design of the project; including plans, specifications, and estimates; and the build portion of actually constructing the project. This method shifts some risks to the contractor, and may expedite the construction project. The design-build method has been used for both straight design-build contracts and for comprehensive development agreements. Current statutory requirements for design-build projects limits the total number of projects to no more than three per year with a minimum project size of $150 Million. TxDOT is also required to closely track these contracts to evaluate their effectiveness compared to traditional design-bid-build contracts[16]. TxDOT estimates that over the next ten years, between $1 Billion and $1.5 Billion will be expended per year through design-build contracts.

Beginning in 2003, the Legislature authorized the use of Comprehensive Development Agreements (CDAs) to provide for public-private partnerships between TxDOT and private entities for the construction, rehabilitation, expansion or improvement of a transportation project. These agreements may also set the conditions by which the private entity will provide financing, acquisition or right-of-ways, maintenance or operation of the project[17]. CDAs allow for the state or Regional Mobility Authority to maintain ownership of the roadway, while deferring some or all of the risk of the project to the private sector. In return the private sector is allowed to generate revenue from tolled lanes or bridges. Some of these projects included an upfront payment to the state or ongoing revenue sharing, and were limited to a maximum of fifty-two years duration. No new CDAs have been authorized since the 83rd Legislative Session, and any projects not already approved and in process by August 31, 2017 lost statutory authority to proceed.

SUNSET COMMISSION ISSUES

While additional funding was provided for TxDOT projects, the agency was also undergoing Sunset review. As a part of this review, the Sunset Commission Staff report identified several areas of critical improvement that needed to be taken with regard to its contracting function. The commission noted that delays to construction projects caused by the contractor were present in almost twenty-five percent of all projects, with seventeen projects delayed for more than one-hundred days. TxDOT also awarded new contracts to contractors whose existing contracts were behind schedule, resulting in the potential for further delays on either project as the contractor resources are further stretched. The past performance of a contractor is not used in an effective manner when reviewing bids for future contracts.

The Sunset Commission report also raised the issue that the contracts themselves contained limited remedies with which to redress delays or other issues with regard to successful project completion. Based upon the contracts that were previously issued by TxDOT, there were only two remedies for low-bid contracts, liquidated damages and default. Liquidated damages provided for a payment to TxDOT for each day beyond the contract specification. The liquidated damages also did not include the cost of traffic impacts in many of its enforcement actions, significantly reducing the potential recovery. In FY 2015 TxDOT assessed only $6.2 Million in liquidated damages for project delays. As Sunset recognized, the minimal nature of

the liquidated damages sections of its contracts was not sufficient to have an effect on performance. With regard to default provisions, TxDOT used this operation on thirteen projects against four contractors in 2015. With a total of seven-hundred eighty-six contracts in effect that year, and more than one-hundred seventy-seven experiencing delays, the remedies were of limited impact.

The evaluation of contractor performance can be a key tool when determining the effectiveness of the contractor and its ability to carry out future contracts. Prior to the Sunset Commission Report, TxDOT only required an evaluation of the contractor's bidding capacity instead of a more thorough determination of its ability to meet quality, safety and timeliness standards[18]. The bidding capacity merely reflects a financial determination made by independent bonding companies whose bond helps protect the state in the event of default. Incorporating the past contractor performance evaluation into the bidding process for future contracts could have a significant impact on TxDOT's ability to ensure efficient and successful completion of new contracts.

Contractor sanctions is another method whereby TxDOT brings an administrative process against the contractor for delays in completion or other contract issues. This process is not specified in the contract in most cases, but rather is predicated on TxDOT rules. The challenge to this process is that it may take more than a year prior to resolution which has limited effect on a project being completed in a more timely manner. The sanctions that could be imposed include a letter or reprimand, prohibition from entering into a specific project, a limit on the contract or payment amount for up to thirty-six months, or debarment for up to thirty-six months. Even under the practice currently, TxDOT risks not applying the sanctions in a consistent manner as it does not have adequate guidelines for application.

While the sanction process, liquidated damages, and default are the types of mechanisms to hold a contractor accountable for project completion and delays, incentives may be included in the contract to encourage contractors to finish the project within a specific timeframe. TxDOT has the authority to implement these types of bids by allocating a cost per day and allowing the contractors to bid on both aspects, the cost and the time to completion. Milestone incentives could also be used to provide a supplemental payment for successfully meeting a deadline.

The challenge to using the incentive approach is to be able to identify which projects should have incentives applied and the appropriate amount of the incentive. TxDOT has not provided the necessary guidance to the districts on determining either the contracts which are viable for incentives, how to calculate the incentive amount, and how long the incentive period should be. The use of incentives can result in a higher cost for the project, but can also be balanced against the external economic costs of the project remaining uncompleted for a longer period of time.

With regard to the design-bid-build or design-build contracts, the Sunset Commission has recommended that TxDOT include a range of contract remedies to its traditional low-bid highway contracts. This is a critical mechanism for TxDOT to be able to meet its obligations to reduce congestion and improve mobility[19].

The 85th Legislature passed Senate Bill 312, the TxDOT Sunset bill which enacted the

recommendations of the Sunset Commission with regard to contracting as described above. On August 30, 2018 the Texas Transportation Commission adopted the necessary rule changes to incorporate these recommendations and has ongoing activities to carry them forward. The implementation of these changes is essential to increase TxDOT's ability to effectively manage the increased number of construction projects in an efficient manner while protecting the taxpayers' investments.

CONGESTION PROJECTS

TxDOT was directed by Governor Abbott on September 23, 2015 to, "create a new focused initiative to identify and address the state's most congested chokepoints and work with transportation planners to get new roads built swiftly and effectively[20]." Chairman Bruce Bugg in a Texas Transportation Commission Meeting on December 14, 2017 directed TxDOT senior staff to apply substantially more of the new funding sources on the top one-hundred congested roads to address the worst chokepoints. With the population growth that is anticipated in the major metropolitan areas, TxDOT's efforts will be critical to enabling the state's continued economic and population growth.

Based upon TxDOT's analysis, the cost to reduce the congestion for the top forty-eight most congested corridors would require thirty-one separate projects at a cost of more than $35.9 Billion. The estimated positive economic impact from the reduced congestion includes time lost in traffic, fuel costs, vehicle operating costs, the economic impact of the construction, and the indirect business activity is more than $135 Billion.

TxDOT initiated its Texas Clear Lanes project with $1.3 Billion from the ending of diversions form the State Highway Fund. These funds went to fund congestion relief projects in the five major metropolitan areas of Austin, Dallas, Fort Worth, Houston, and San Antonio. Under the Unified Transportation Program (UTP) ten-year plan, there is more than $24.4 Billion identified for congestion relief in the five major urban areas. The five metropolitan areas have designated funding in the following amounts: 1) Austin - $2.7 Billion, 2) Dallas - $6.8 Billion, 3) Fort Worth - $3.2 Billion, 4) Houston - $8.9 Billion, and 5) San Antonio - $2.8 Billion[21].

Committee Recommendations

1) TxDOT, Regional Mobility Authorities, and county and regional toll authorities should be able to enter into comprehensive development agreements for projects which are not included in TxDOT's Uniform Transportation Program and which have been approved by a vote of the designated elected local governmental entity or entities, or by a local referendum in the area(s) through which the highway will be built or expanded.
2) Regional Mobility Authorities, and county and regional toll authorities should be authorized to develop toll roads or tolled lanes for projects which have been approved by a vote of the designated elected local governmental entity or entities, or by a local referendum in the area(s) through which the highway will be built or expanded.
3) TxDOT should be authorized to increase the number of design-build contracts from the current number of three to a total of six per year with a minimum project value of $250 Million and require that TxDOT track and report on the efficiencies developed through

this mechanism and report it to the Legislature in January of each year.

4) TxDOT should produce annually a report detailing the total traffic delays caused by the fault of the contractor including both administrative costs and traffic delay costs and the corresponding penalties that were imposed on the contractor for these delays including debarment, monetary penalties and such other penalties as TxDOT imposes. TxDOT shall also include a list of other projects on which the contractor is currently working and the status of the contract as well as the contractor's contracts for the previous five years and any delays in the completion of those contracts.

Charge 3: *Study the efficacy of existing transportation finance mechanisms from state, regional, and local perspectives. Identify opportunities to improve existing transportation finance mechanisms and investigate the feasibility of developing new ones.*

Committee Action:

The committee received testimony related to the charge on April 18, 2018. Oral testimony was provided by individuals representing the following entities: Texas Department of Transportation, the Bond Review Board, Regional Mobility Authorities, Toll Road Authorities, the Austin Chamber of Commerce, and the City Council of Dallas. Written testimony was also provided by the Texas Conservative Coalition Research Institute and the Reason Foundation.

Background:

STATEWIDE FUNDING

Funding for TxDOT comes from a variety of sources including federal funds, the State Highway Fund, Proposition 1, Proposition 7, comprehensive development fees, State Highway Fund surplus, bond proceeds, and the Texas Mobility Fund. TxDOT's ten year Uniform Transportation Plan includes more than $70 Billion is projects with more than $38 Billion of that funding coming from Propositions 1 and 7. This is a significant step forward for improving transportation infrastructure in Texas.

Federal funding for TxDOT comes primarily from the tax and fee revenue deposited to the Federal Highway Trust Fund from gasoline and diesel fuel taxes. The federal motor fuels tax rate is 18.4 cents per gallon on gasoline and 24.4 cents per gallon on diesel. In 2005 Congress voted to spend down the balance of the fund that had accrued over previous years, temporarily raising the state allocations for 2005-2009. After 2009 the higher levels of funding were continued using general funds to supplement the Federal Highway Trust Fund revenue.

The White House has identified $200 Billion in direct federal investment in infrastructure that they have indicated would require significant new investment from state and local resources to match. The match may be difficult for the state and local governments to meet without a way to provide private sector funding to supplement these sources. Although no funding has been passed for this program, the ability of the state to compete for these funds could provide additional options for new infrastructure development.

The State Highway fund accounts for approximately thirty-three percent of the total TxDOT budget and is supported by several revenue sources including the motor fuels tax, motor vehicle registration fees, lubricant sales taxes, permit fees for special vehicles, local project participation funds, and federal highway reimbursements. In the 84th Legislative Session, the Legislature ended approximately $1.3 Billion in diversions from the State Highway Fund to other projects

increasing TxDOT's budget correspondingly.

The Texas Motor Fuels tax is twenty cents per gallon on both gasoline and diesel fuel, fifteen cents of which is dedicated to the State Highway Fund and five cents is dedicated to the Available School Fund. The Texas motor fuels tax rate is ranked thirty-first among the states and has not been increased since 1991[22]. Based upon the value of the gas tax in 1992, it has been estimated that the current purchasing power of the tax revenue is less than half of its original value[23]. The improvements in fuel efficiency and the incorporation of alternative fuels like natural gas and electric, are also eroding the revenue derived from the gas and diesel taxes[24].

In 2014 Texans approved Proposition 1 which authorized a constitutional amendment to allocate a portion of the oil and gas severance taxes to the State Highway Fund dependent upon insuring a "sufficient balance" in the Economic Stabilization Fund. For the 2018-19 Biennium Prop 1 provided 9.4 percent of the TxDOT budget. The funds could be spent on "constructing, maintaining, and acquiring rights-of-way for public roadways other than toll roads. The enabling act HB 1 of the 3rd Called Special Session of the 83rd Legislature provided that the distribution would end on December 31, 2024. This amendment has provided significant new revenue to TxDOT totaling more than $4 Billion through Fiscal Year 2018 and is deposited in a subaccount of the State Highway Fund. The amounts distributed to this fund from the severance taxes are wholly dependent on the demand for these products, the price of these products, and the balance in the Economic Stabilization Fund. These funds will expire after the Fiscal Year 2025 transfer unless further action to extend the expiration is passed by the Legislature. This creates a measure of uncertainty to the budgeting process under TxDOT's Uniform Transportation Plan which projects funding out ten years and goes beyond the current expiration date for the funding.

Proposition 7, which allocates the first $2.5 Billion in sales tax revenue above $28 Billion to transportation funding, was passed by Texas voters in 2015. This fund accounts for approximately eleven percent of the TxDOT budget. The funds could be used to "construct, maintain, or acquire rights-of-way for public roadways other than toll roads; or to repay the principal of and interest on general obligation bonds issued under Proposition 12. The amendment also provides that thirty-five percent of any motor vehicle sales and rental tax revenue in excess of $5 Billion be distributed to TxDOT beginning in September of 2019. These provisions will expire on August 31, 2032 and August 31, 2029 respectively unless future legislation is passed to extend them[25]. The Legislature may also reduce the amount deposited to the State Highway Fund under either provision by a two-thirds vote of each chamber by up to fifty percent for a given biennium[26].

The Texas Mobility Fund is a revolving loan program that was created in 2001. In 2003 the legislature dedicated revenue to fund the bond payments. These bonds are not subject to the constitutional debt limit unless general revenue is required to make a debt service payment in which case, only the amount of the payment is counted against the constitutional limit. HB 2015 by Chairman Pickett was passed in the 84th Legislative Session and directed that no further debt may be authorized under the fund, and only actions to repay or refinance the current bonds may be taken.

A constitutional amendment entitled Highway Improvement General Obligation Bonds, or

Proposition 12, approved by voters in 2007, authorized the legislature to allow TxDOT to issue up to $5 Billion in bonds to fund highway infrastructure. Under HB 1 of the 81st Legislature, TxDOT was authorized to issue the general obligation bonds. The Transportation Commission has committed the full $5 Billion of bonds. No new bonds may be issued.

Proposition 14, State Highway Fund revenue bonds, were approved by the legislature and voters in 2003. The maximum of up to $6 Billion in bonds is secured by State Highway Fund revenues. The Transportation Commission has committed the full amount to projects. No new bonds may be issued[27].

One aspect of project development and the decision regarding the source of funding for transportation infrastructure projects is the variable cost of the projects themselves. Estimating the overall cost of projects in the future is difficult as the cost of these materials does not correlate with inflation in the overall economy. TxDOT maintains the Highway Cost Index (HCI) which allows it to monitor the price changes in thirty-four items that are highly correlated to the highway construction industry. The HCI can be used to estimate the purchasing power of future transportation funding and to determine funding requirements for proposed projects[28]. This is a critical tool in the development of the Unified Transportation Program to ensure that adequate resources are available for projects included in the plan. It can be used to evaluate decisions regarding the use of bond financing if the projected future costs of a project will rise sufficiently over time to exceed the cost of financing and developing the project at the present time and at the present cost.

REGIONAL AND LOCAL FUNDING

Transportation Reinvestment Zones (TRZs) were created by the legislature to provide a dedicated revenue source for local transportation projects. Since its origination in the 80th Legislative Session, TRZs have been revised a number of times to expand their utility, scope and applicability. A city, county or port authority may designate an area of the jurisdiction, which is underdeveloped, establish a base year for property and sales tax, and any incremental increases in tax revenue from within the zone from this base year may be applied to transportation projects in the zone[29]. It differs from traditional Tax Increment Financing because it is not based on an increase in the tax rate and does not require a separate governing board. Funds from the TRZ may be combined with other sources of revenue to complete the project. Based upon the improved transportation infrastructure, additional growth in the underdeveloped area provides significant benefit to the local governmental entity and the citizens. Multiple cities and counties have implemented TRZs. A Texas A&M Transportation Institute research effort identified key unresolved issues that have limited TRZ use. Counties may face constitutional challenges if they use TRZ revenue to secure bond debt, and a recent Attorney General Opinion (KP-0004)[30] has indicated that merely collecting and using funds from a TRZ may subject the county to constitutional challenge[31]. County Energy Road TRZs (CETRZs) were repealed in the 85th Legislative Session. (Note: See Also Charge 8 on Energy Roads)

Vehicle registration fees are collected by the county tax assessor-collector and can include optional local fees added by the commissioners court of a county. These fees may not exceed

$10 with certain county exceptions and are allocated to the county's road and bridge fund to provide funding for transportation projects within the jurisdiction.

Bond financing of transportation projects may be undertaken by Regional Mobility Authorities, County Toll Authorities, and Regional Tollway Authorities, which use revenue generated from toll roads to construct infrastructure either in place of, or supplementing, TxDOT funding[32]. However, any project by these entities must be approved by TxDOT if it connects to the state highway system.

Public/Private Partnerships and Comprehensive Development agreements have also been used as revenue sources to fund transportation projects in local jurisdictions. These have the added benefit that the private company may assume the risk of paying the cost of the project and is repaid with the revenue generated from the tolls on the road over time. These types of agreements have led to new road construction by entities authorized to create toll roads. The legislature has not authorized new CDAs since 2013. Mike Heiligenstein, Executive Director of the Central Texas Regional Mobility Authority stated, "We are currently at a disadvantage with other states because we are restricted from entering into P3s and CDAs.[33]"

The federal government has also provide the Transportation Infrastructure Finance and Innovation Act (TIFIA) which provided credit assistance for regional and national surface transportation projects. The Central Texas Regional Mobility Authority used TIFIA to help fund the 183 South and 183A Phase I projects. TIFIA was reauthorized by Congress in 2015 to continue through 2020.

The Infrastructure for Rebuilding America Grants (INFRA) is another federal program administered by the U.S. Department of Transportation. In order to apply for these grants, TxDOT must approve the application. The process is highly competitive and limited funding is available, making this program of limited access.

Six metropolitan transit authorities, two city transit departments, one county transit authority, and one advanced transportation district impose a sales and use tax which may be used to fund transportation projects in their respective areas[34]. The majority of these funds are used to provide public support for transit solutions, but some of the resources, such as in Bexar County, are allocated to infrastructure projects on both county and state roads[35].

Cities and counties may also, at the request of property owners, create public improvement districts (PID) which are funded by property tax assessments on the property owners within the bounds of the district. The funds are then used specifically within the district to provide benefit to the property owners in the form of improvements to public facilities and infrastructure. In some cases the PID funds are used to supplement transportation projects that have not been funded through TxDOT and which are necessary for the maintenance or growth of areas within the PID[36].

ALTERNATIVE FUNDING OPTIONS

With the adoption by consumers of an increasing number of electric vehicles, which, by their nature, do not pay the gas tax, some states are either considering or, as in the cases of North Carolina and Virginia, implementing a registration fee on electric vehicles in place of the revenue received from the gas tax. While the number of electric vehicles in Texas in 2015 was approximately three percent, that number is expected to at least double by 2040[37]. As the technology related to batteries continues to advance, and the range of battery-operated vehicles expands, the take up rate of these vehicles will also grow[38]. There are a number of options for implementing an electric vehicle fee including a gas tax recovery fee which seeks to generate a comparable amount of funds per vehicle as is obtained from the gas tax; a tiered structure of fully electric, hybrid and alternative fuel vehicles; or a road usage recovery fee which estimates the damage caused by the vehicle and applies a relative fee. Each of these could also include an indexing option tied to the consumer price index or other related index to ensure that the value of the fee remains constant in relative terms.

A number of states have established specific funding programs to mitigate damage caused to state and county roads in areas with high levels of mining, energy production or timber harvesting. Pennsylvania has established Excess Use Maintenance Agreements that mandate that energy companies are required to repair the roads impacted by heavy-duty truck traffic and maintain the roads for the duration of the production. Ohio and West Virginia have developed Road Use Maintenance Agreements that hold companies accountable for improvements and maintenance of roads which they are using. These types of agreements have been implemented at the local level with counties able to require them for development within their jurisdictions. With these agreements, the companies are finding it more cost effective to rebuild the roads to meet traffic demands before the start of operations. [39].

Committee Recommendations:

1) The Sunset provision from the enabling statute for Proposition 1 should be removed.
2) The Sunset provision from the enabling statute for Proposition 7 should be removed.
3) A Constitutional Amendment should be proposed to allow counties to create Transportation Reinvestment Zones and use the proceeds as necessary for the purposes set forth for the creation of the TRZ, including the authority to secure debt with TRZ revenues.
4) TxDOT, Regional Mobility Authorities, and county and regional toll authorities should be authorized to enter into comprehensive development agreements that would require Texas Transportation Commission approval for projects which are able to attract new federal funding made available through federal legislation and which require public/private partnerships.
5) TxDMV should study the most effective mechanism for collecting appropriate road use fees for owners of electric vehicles and the appropriate amount of those fees and report back to the legislature by October of 2020.

Charge 4: *Study Texas' various toll authorities and evaluate their transparency and stakeholder responsiveness. Make recommendations to improve the state oversight of toll authorities.*

Committee Action:

The committee received testimony related to the charge on April 18, 2018. Oral testimony was provided by individuals representing the following entities: Texas Department of Transportation, Texas Uniting for Reform & Freedom, Texans for Traffic Relief, Regional Mobility Authorities, and Tollway Authorities. Written testimony was also provided by the Hidalgo County Regional Mobility Authority.

Background:

The state of Texas recognized as early as 1953 that the revenue from the gas tax may be insufficient to meet all of the transportation infrastructure needs of the state. At that time it created the first statewide turnpike authority. Since that time, the legislature has created several different governmental entities which have limited authority to develop new infrastructure through the use of user fees or tolls imposed on the drivers accessing infrastructure and using the revenue to repay private investments, debt financing or for the construction of new roads.

Authorized toll road operators in Texas include the Texas Department of Transportation, nine regional mobility authorities (RMAs), one regional toll authority, and eight county toll authorities. While TxDOT's authority is statewide, each of the other entities is limited in its scope based upon the nature of its statutory authorization. These entities have the authority to finance, design, construct, operate and maintain toll roads as authorized by statute. For all toll entities, the Texas Transportation Commission must grant approval before construction begins on any project that is to be connected to the state highway system.

Texas toll entities provide a variety of payment options for their customers including the use of toll tags which allow for electronic identification of the vehicle and automated billing which can be sent electronically or by mail. For individuals who do not use the electronic identification, the systems can identify the vehicle and either mail or electronically send an invoice to the owner of the vehicle. Various authorities offer reduction of toll fees for using the electronic method as it reduces the cost to the toll operator as well.

Many toll operators have implemented system financing which allows the revenues from one toll project to be applied to any project that is included in the designated system. The advantage to the toll operator is the ability to use those funds to finance new construction. Many have challenged this practice as requiring toll users of one road to pay for the costs of a road that they are not using and that the public does not have the opportunity to approve this re-purposing of the toll revenue. This eliminates the concept that the toll is a user fee to pay for the costs of the road used.

Texas Department of Transportation Toll Operations

TxDOT operates approximately two-hundred thirty centerline miles of toll roads which include the Central Texas Turnpike System and several portions of the Grand Avenue Parkway in Harris, Montgomery and Chambers counties. For each of these roads, TxDOT is responsible for the marketing of TxTAG, web support, toll collection systems integration, back office operations, customer service center operations, RMA operational support, interoperability coordination with other toll authorities and toll management systems contracting and installations. TxDOT toll lanes in the Dallas-Fort Worth area are supported by the North Texas Toll Authority as prescribed in statute.

Users of TxDOT toll roads are able to use the roads and receive invoices in two ways. The users vehicle can be identified through photographic imaging and identification or through the use of TxTag. TxTag is a sticker which is placed in the windshield of a vehicle with a small identification chip that can be read by electronic tolling systems. When the vehicle travels through the toll booth, the chip is read electronically, and the account of the vehicle is charged for the toll. Users may deposit funds into their account and have the tolls automatically paid, or may receive bills electronically for their tolls. Federal legislation requires that all tolling authorities which received federal funds integrate their billing systems so that charges are consolidated. TxDOT has interoperability agreements with each of the toll agencies in Texas which allow for the user's account to be charged regardless of the toll road which is used. In addition TxDOT has signed agreements in place with toll agencies in Kansas and Oklahoma.

If they do not have a TxTag, the user's charges are sent to the address where the vehicle is registered. Pay by mail users can now also receive invoices electronically if they choose to do so. One of the key issues that pay-by-mail customers deal with is when they change addresses and do not notify TxTag. TxDOT has directed its contactor, Conduent, to implement a program which will allow them to track the individual's change of address to ensure that timely billing notification takes place. TxDOT and the other toll authorities are integrated on the toll tag issue, but have not coordinated their efforts on the pay by mail process. An individual could receive multiple pay-by-mail letters from various toll authorities in a single month.

The Harris County Toll Road Authority (HCTRA) was contracted to carry out the back office operations of the interoperability agreements. When the system was first initiated in May of 2017, users experienced significant issues related to billing. Users were sent multiple statements, were charged excessively, or were incorrectly identified. This was caused by issues within the computer systems which were being integrated across all of the toll agencies within the agreement. TxDOT reports that these errors have been corrected, and that the issues with individual toll patrons have been resolved. During this period, TxDOT did not require payment of the tolls that were charged inaccurately.

Texas, Oklahoma and Kansas have also signed interoperability agreements with Florida, Georgia, South Carolina and North Carolina. These entities should be integrated into the interoperability hub at HCTRA by the spring of 2019. As of May of 2018, TxDOT is also negotiating with the E-ZPass group which operates toll roads in the northeast and the west coast, however these tolling entities use an radio-frequency identification toll tag which is unable to be

read by the Texas, Kansas and Oklahoma toll booths. This issue is being addressed by the contractor providing the toll readers.

TxDOT currently contracts with an outside vendor, Conduent, to manage toll collection and customer service systems. Another contractor, Transcore, provides the technology infrastructure necessary for the tracking of toll users. Conduent is responsible for the call center which assists customers with establishing a TxTag account, billing questions, and payments.

In the event that a user does not pay their account, TxDOT is authorized to impose penalties for each transaction. Prior to March 1, 2018, TxDOT charged $1.15 for each of up to two bill mailings. If the bill was not paid, they issued a $5.00 violation fee. At this point if the bill was not paid, the total amount was sent to collections which was authorized to receive a $25 collection fee. If the account was transferred to a court, the fees and fines could reach $350. TxDOT toll operations treated each instance of a vehicle traveling underneath a toll gantry as a single transaction. This would create a situation whereby one trip on a toll road which crossed under three separate tolling stations would generate three charges, each of which could be charged a late fee with respect to non-payment and each of which would be subject to administrative penalties and collection costs.

The 85th Legislature included in SB 312, the TxDOT Sunset Bill, a cap on the amount of fees that could be collected for a invoice to an individual. The amounts included a $1.15 mail fee for each of three invoice mailings, a maximum of a $6 late fee per month to a maximum of $48 per year. TxDOT has implemented the system to include a monthly late fee of $4 and a maximum of $48 per year. At the time of the transition, TxDOT waived $1.3 Billion in late toll fees which the department identified as unlikely to be collected.

Statute also allows drivers who fail to pay or refuse to pay a toll charge to be prosecuted for a misdemeanor offense. Since 2010, more than 14,737 cases have been filed against violators, and more than 4,908 have been convicted of the misdemeanor. SB 312 also limited the number of prosecutions for refusal or failure to pay a toll to one per year for a customer with two or more unpaid invoices.

The Texas Transportation Commission in 2017 revised the Unified Transportation Program ten-year funding plan to exclude any new toll projects using TxDOT funding for any portion of the project. This action will limit the ability of many toll entities to expand their toll projects, however several toll entities have system financing that allows them to continue new transportation infrastructure projects. The change in policy was initiated to respond to toll road opponents who have indicated that toll roads that use tax funds are being required to pay for the road twice, once with their tax payments and again when they use the road. In contrast to this view, the toll projects which receive TxDOT funds, excluding Prop 1 and Prop 7 which preclude their use on toll roads, may not be developed at all, or may be delayed by decades prior to development as the TxDOT funds alone would be insufficient to pay for the entire project.

REGIONAL MOBILITY AUTHORITIES

The basis for regional mobility authorities was created by the 77th Legislature in 2001 for the purpose of expanding opportunity for increased transportation infrastructure development at a local and regional level. RMAs may be formed from cities, counties, or combinations of local governmental entities. To be formed, each RMA must receive approval from the Texas Transportation Commission. In 2003, the RMA's received additional authority to conduct eminent domain proceedings, combine projects into systems, and transfer indebted turnpike projects to TxDOT. It also expanded their ability to construct additional types of transportation infrastructure, including, among others, bridges, ferries, airports, border crossing inspection stations, and port security. The current RMAs operating in Texas include: Alamo, Cameron County, Camino Real, Central Texas, Grayson County, North East Texas, Hidalgo County, Sulphur River, and Webb County.

The purpose for each RMA is unique to its area in that there are a wide variation of projects that have been and continue to be developed by them. The Cameron County RMA has been developing a new limited access toll route to connect the Port of Brownsville and state highway 48 to interstate 69E[40]. This segment will help to alleviate congestion due to traffic created from the Port of Brownsville and expedite commerce. The Central Texas Regional Mobility Authority (CTRMA) has begun development of a four-lane toll road in southern Travis county that will reduce vehicle congestion on current roadways, reducing drive times significantly for commuters to central Austin. Each RMA works to develop projects based upon the needs of the community that they serve.

The governance of RMAs also varies significantly. Based upon the number of cities or counties involved in the RMA, the board of directors will reflect the various entities which make up the authority. The commissioners court of the county or counties served and/or the city council will appoint individuals to serve on the board, and the presiding officer is appointed by the governor. There is a strict prohibition on any elected official serving on the board of an RMA. The Alamo RMA has been subsumed by the Bexar County Commissioner's Court which appoints the operating board for the RMA.

RMAs have been of significant assistance to the development of transportation projects that intersect with multiple local governmental entities. Their efforts have yielded projects which include multiple cities, counties, TxDOT, New Mexico, and even Mexico. Projects that are developed are done so by coordinating with all of these entities and being responsive to the needs of the elected governmental bodies with which they cooperate. The RMAs can also serve as a means to develop a project across multiple jurisdictions which individually do not have the resources necessary to develop a project on their own, but can aid in the development of the project with the support from other jurisdictions. The end result is a completed project that benefits multiple areas.

One of the challenges that RMAs face is the perception that they are not transparent in their finances, project details, and plans. A study by the Texas A&M Transportation Institute found that the availability to the general public of documents relating to these issues was limited at some RMAs. The ability of the public to retrieve this information and understand the role that

the RMAs provide and the manner in which resources are being used could benefit the public's perception of the progress that is being made by the RMAs.

Specific RMAs have taken significant steps to provide information to the public in the most visible manner as possible and to ensure that their operations are in compliance with appropriate financial and ethical compliance. The CTRMA and Alamo RMA have both implemented annual internal and external audits and provide those on their websites. RMAs also work to respond to the need to ensure public awareness of their actions. CTRMA broadcasts its board meetings on their website. Individual RMAs have taken strong steps to publish as much information to the public as possible.

REGIONAL TOLL AUTHORITY

The North Texas Tollway Authority is the sole regional toll authority in Texas. It was initially created in 1953 as the Texas Turnpike Authority and was charged with building a turnpike between Dallas and Fort Worth. This project was transferred to TxDOT in 1977 when the project costs had been recovered and the outstanding bonds retired and re-designated as Interstate 30.. The Texas Turnpike Authority was eliminated when the legislature created the North Texas Tollway Authority in 1997 at which time all assets and liabilities were transferred to NTTA. The NTTA includes Collin, Denton, Dallas and Tarrant counties. Within these counties, the authority may construct, maintain, repair and operate toll projects. The funding for these projects may be raised from the sale of bonds, contributions from public and private entities, grants, and loans. The governance of the NTTA is through an operating board appointed by the Commissioner's Courts of the member counties.

Individuals who use a NTTA toll road and refuse to pay are subject to a maximum fine of $250 plus any administrative costs. Administrative costs are limited to a maximum $25 fee on the first notification of nonpayment, a maximum $25 on the second notice of nonpayment for each unpaid toll to a maximum of $200, and if nonpayment continues after the third notice is sent, the individual will be fined $250 per unpaid toll and subject to misdemeanor prosecution.

COUNTY TOLL AUTHORITY

County Toll Authorities with active toll roads include Harris, Ft. Bend, Fort Bend Grand Avenue Parkway, and Montgomery Counties. The two Fort Bend authorities are managed and operated by the same individuals, but the Grand Avenue Parkway project was required to keep all funds distinct from those of the Fort Bend County Toll Authority. These types of authorities are a part of the county government and answerable to the County Commissioner's Court. The Commissioner's Court may appoint an operating board to oversee the projects if they choose. Because these are operated under the auspices of the elected county government, the public has the ability to impact the decisions made through the elected commissioners and county judges.

These entities may charge tolls for travel on specified roads within the jurisdiction of the county in which they operate. The tolls charged by these authorities are to be set by the commissioner's court or the operating board. Upon non-payment of the toll or tolls, an individual is, in addition to the toll amounts, responsible for administrative fees up to a combined amount of $100. An

individual who fails to pay these tolls or the associated administrative fees is subject to a misdemeanor charge and a fine of not more than $100[41].

Committee Recommendations:

1) The same standards for administrative and civil penalties should be applied to toll violators for all Texas toll roads, including those not operated by TxDOT.
2) Unless otherwise approved by a vote of designated elected local governmental entity or entities, or by a local referendum in the area(s) through which the highway was built or expanded, any revenue generated on a toll road should only be used to repay the cost of the infrastructure, financing, maintenance and operation until the initial costs have been fully repaid at which time the entity responsible for the toll road should determine the necessary revenue to operate and maintain the roadway and set toll charges at the level necessary to cover those costs only.
3) All toll agencies should incorporate pay-by-mail billing in an integrated fashion as it does toll tag billing.
4) RMAs and the Regional Toll Authority should conduct independent audits at least biennially and post the results on their website.
5) RMAs, County Toll Authorities, and the Regional Toll Authority should post on their websites information detailing current project expenditures and sources of funds, updated completion schedules for ongoing projects, and estimated completion dates.

Charge 5: *Review the management of the oversize/overweight permitting system and ensure that the state is adequately protecting the driving public and road integrity. Make recommendations to improve operations.*

Committee Action:

The committee received testimony on February 8th, 2017 regarding the oversize and overweight permitting system from: the Texas Department of Transportation, the Texas Department of Motor Vehicles, the Precast-Concrete Manufacturers Association of Texas, the Texas Oil and Gas Association, the Texas Association of County Judges and Commissioners, the Texas A&M Transportation Institute, and the Texas Department of Public Safety. Written testimony was also received.

Background:

Traffic on the Texas State Highway System is restricted in terms of the size and weight that a vehicle may be in order to use this system. To carry out these functions, the legislature in 1927 authorized the Texas Highway Department (now TxDOT) to employ eighteen license and weight inspectors and one chief inspector. Today, the enforcement of commercial motor vehicles is handled by the Texas Department of Public Safety (DPS), Texas Highway Patrol through the Commercial Vehicle Enforcement Division. This division now employs more than five-hundred sixty-nine individuals to reduce commercial motor vehicle accidents, reduce damage to state highways, ensure payment of the registration fees, and protect the public through enforcement of traffic laws and regulations related to operation of a vehicle[42].

The Department of Motor Vehicles (TxDMV) was directed by the 82nd Legislature to handle the permitting of oversize/overweight vehicles while TxDOT retained the responsibility for setting maximum vehicle and load weights, vertical clearance heights, signage for weight and load restrictions, and engineering and traffic studies regarding maximum width of vehicles. TxDMV also works with TxDOT to determine the routes that oversize/overweight vehicles may travel. The three agencies, DPS, TxDOT, and TxDMV work collaboratively on defining, permitting, and enforcement of oversize and overweight vehicles within the confines set by the legislature.

Currently, state law allows for maximum load dimensions of eight feet six inches width, fourteen feet height, and variable length according to the type of vehicle. The maximum weight allowed is based upon the number of axles on the vehicle. Any vehicle traveling on state highways with loads beyond these dimensions or exceeding eighty thousand pounds total weight requires an oversize/overweight permit.

The current restrictions on motor vehicles have been established to protect the safety of the public, prevent undue damage to the surfaces of roadways, and to prevent collisions with transportation infrastructure like bridges and overpasses. Due to the size of the state and the breadth of industries that operate in the state, Texas issues more oversize/overweight permits

than any other state. In 2017 TxDMV issued more than seven-hundred thousand oversize/overweight permits.

In 2011 TxDMV implemented the Texas Permitting and Routing Optimization System (TxPROS) to carry out much of the administrative requirements for issuing permits. This system allows for the permittee to submit their application for an oversize or overweight permit electronically. Within the system, checks are made to verify the information provided, and more than four-hundred thirty thousand permits were issued by the system without TxDMV personnel intervention. This system has reduced the amount of time that a permittee must wait to receive their permit, and reduces the cost to the state for the effective management of the permitting process. As a function of this system, loads that require routing instructions due to the size or weight of the load are provided with electronic maps showing the specified route that is required to be taken. This has also significantly improved the efficacy of the system and the safety of the public[43].

For vehicles which are not able to be processed automatically by TxPROS, TxDMV staff issue permits for over-width, over-length, over-height, or super-heavy loads. The legislature has authorized these types of permits to be issued for specific loads like agricultural products or manufactured homes, for specific vehicles like cranes or well-servicing trucks, for specific lengths of time, and for specific vehicles or companies as a whole, For companies that use the annual permit, information on the number of trips taken and the weight of the loads is not collected by TxDMV, so the actual number of overweight loads is not tracked. This permit system is continually reviewed for permit quality by TxDMV staff, and includes a compliance check of all relevant statutes, rules and policies.

TxDMV has the ability to identify commercial carriers that are Out-of-Service based upon Federal Motor Carrier Safety Administration standards. This allows TxDMV to review their materials for applications for oversize/overweight permits, and notify DPS of their identity. Current law does not allow TxDMV to deny the out-of-service carrier an oversize or overweight permit[44].

Enforcement of the restrictions related to oversize and overweight vehicles is limited to certain weight enforcement officers designated in statute. These would include: 1) a license and weight inspector of DPS, 2) a highway patrol officer, 3) a sheriff or sheriff's deputy, 4) a municipal police officer in certain counties, 5) a police officer certified by DPS, or 6) a constable or deputy constable in designated counties.

The penalties for overweight vehicles are assessed upon a sliding fine scale based on the amount an axle or tandem axle weight is over the legal limit. The driver may also be fined if the vehicle is over the vehicle's allowable weight. Should a driver operating under an overweight permit be found to have exceeded the permit weight, additional fines are automatically added. Overweight vehicles can be weighed in the field with portable scales, and drivers are only ticketed and required to reduce their load if it exceeds the maximum weight by five percent.

The Texas Department of Public Safety conducted more than forty-three thousand weight inspection in 2017. As a result of those inspections, eighteen-thousand seven-hundred forty

tickets for overweight vehicles were issued along with more than twenty-five thousand warnings. Local law enforcement agencies which have weight enforcement officers conducted an additional eight-thousand two-hundred seventy-three weight inspections and issued more than thirty-six hundred tickets[45].

In the event that TxDMV identifies a pattern of overweight tickets being brought against drivers for a particular company, it may initiate an investigation and impose further administrative penalties against the company including fines and suspension of registrations. In 2017, there were 337 cases against companies for overweight permit violations with more than $1.1 Million in administrative penalties resulting and ten permitting system accounts were suspended. By suspending the account, companies are unable to request an overweight permit. TxDMV also brought actions against ten companies which load shipments that are overweight in 2017. However it does not have the authority to issue administrative penalties to loading companies which fail to provide a certificate of weight to the driver picking up the load. TxDMV also does not have the authority to address administrative penalties against companies which violate over size limitations.

During the 85th Legislative session, the legislature passed Senate Bill 1524 by Nichols which provided for an overweight permit to be issued to carriers for sealed intermodal shipping containers within thirty miles of a Texas port authority or port of entry along the gulf coast. The permit was restricted to requiring six axles for a load up to 93,000 pounds, or seven axles for up to 100,000 pounds. It also required that the truck have safety equipment including driver blind-spot system and a roll stability support system. The vehicles were also required to follow specific routes that were designated by TxDOT. The weight limitations and the increased axles were intended to keep the maximum per axle weight comparable to that of traditional five axle trucks which have a maximum of 80,000 without an overweight permit. The 85th Legislature also passed SB 1383 which authorized milk trucks to carry loads up to 90,000 pounds on six axles with roll stability support system and driver blind spot system.

The requirements in SB 1524 and SB 1383 allowed companies to move heavier loads than authorized without a permit, while keeping the impact to the roadways comparable to those of a truck without a permit carrying 80,000 pounds. While these requirements are limited to the two types of permits, the advantages to the roadways is significant compared to other overweight permits currently authorized.

Committee Recommendations:

1) Individual owner/operators and companies which operate vehicles with overweight permits should submit to TxDMV one report detailing the number of trips taken by each permitted vehicle and the weights of those loads over the course of one year. TxDMV should then prepare a report of the information including the average number of trips taken under the type of permit, the average weight per trip and such other information as may be relevant to future legislative action.
2) TxDMV should be authorized to deny oversize/overweight permits to applicants who are identified as out of service by the Federal Motor Carrier Safety Administration.
3) Every county commissioners' court should be authorized to designate constables or

deputy constables as weight enforcement officers on state and county roads in the county who would be subject to the same requirements imposed under Subchapter C, Chapter 644 of the Texas Transportation Code.

4) The requirements for overweight vehicles in SB 1524 should be considered in future legislation for overweight vehicles.
5) TxDMV should be authorized to administratively penalize companies which violate the size limitations in the same manner that they are able to do so for companies violating the weight limitations.
6) TxDMV should be authorized to administratively penalize loading companies which fail to provide a certificate of weight to the driver picking up the load.

Charge 6: *Study emerging issues in transportation related to technology and evaluate the state's preparedness for addressing challenges and opportunities posed by technological advances. Review the implementation of state and federal programs and legislation related to intelligent transportation systems, autonomous vehicles, unmanned aircraft systems (i.e. drones), and other technological changes.*

Committee Action:

The committee received testimony on February 8th, 2018 regarding intelligent transportation systems, unmanned aircraft systems, and autonomous vehicles from the following entities: the Texas Department of Transportation, the Texas Department of Motor Vehicles, General Motors, Smart Mobility Texas, the Consumer Electronics Association, the Lone Star Unmanned Aircraft Systems Center of Excellence and Innovation, the Texas A&M Transportation Institute, and the Texas Department of Public Safety. Written testimony only was also received from Chargepoint, Inc.

Background:

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) relate to a wide array of technology which is intended to provide services related to vehicle movement and traffic management to allow them to make safer and better decisions related to travel. ITS can include currently implemented items like in-car navigation systems, traffic control systems, roadside dynamic message signs, automatic license plate recognition systems, speed cameras, and closed-circuit television systems. However, the rapid increase in technology has also increased the level of sophistication by which information is being shared across traffic control systems, driver information systems or applications, smart-phones, GPS routing systems, vehicle to vehicle information exchanges, and vehicle automation systems[46].

TxDOT Metro Districts expended $279 Million on construction and $55 Million on maintenance of state ITS infrastructure between 2011 and 2015. TxDOT uses dynamic messaging signs to provide traffic information to drivers including crashes, construction lanes, and maintenance lane closures. This information comes directly from TxDOT, from traffic sensors on the roadways, and from private sector data where sensors are unavailable. The use of these devices enables faster response from the Traffic management centers and reduced potential for secondary collisions. These dynamic messaging signs are also used to provide information on weather events, evacuations, Amber, Silver and Blue Alerts, and for traffic safety campaigns. TxDOT has eight-hundred eighty-five full size DMS and two-hundred smaller ones.

Over height vehicle detection systems can also be incorporated in approaches to bridges and overpasses to reduce the potential for a bridge strike. These systems provide a real time height

measurement of vehicles and their loads and provide roadside dynamic messaging to the driver to warn of impending crash and allow time to exit before the bridge or overpass. While the cost of these systems may be as much as $400,000, the cost to repair a bridge or overpass may be as much as $300,000 per bridge strike.

TxDOT has recently initiated a pilot program to warn drivers entering a highway in the wrong direction. The system not only warns the driver, but also engages dynamic messaging signs to oncoming traffic to warn of the oncoming driver. TxDOT reports that so far, the system has proven effective in preventing sixty-two accidents in the San Antonio pilot program. The systems have been set up in San Antonio, Houston, and Fort Worth.

Work has also been started on the Texas Connected Freight Corridor projects which will provide vehicle to vehicle and vehicle to infrastructure communications to allow for the timely sharing of traffic and roadway conditions, traffic accidents, weather conditions and a host of other safety and traffic management information. This effort could lead to improved traffic flow as trucks divert from routes that are congested onto routes that may be faster at the time. This will also help to reduce the number of follow on accidents that occur when traffic is suddenly halted due to an accident and vehicles approaching the scene are unable to slow quickly enough to avoid striking other vehicles. The Texas Connected Freight Corridor will include I-35, I-45, and the I-10 corridors[47].

Automated Vehicles

Since 1965 there have been more than 2.2 million motor-vehicle fatalities in the United States. The major factor in ninety-four percent of these deaths is due to human error or behavior. Removing the potential for human error from the transportation system, especially for passenger vehicles, could result in a significant decline in the number of accidents and fatalities[48]. Through the advancement of computers, communication systems, global positioning systems, and other key technologies, the development of automated/autonomous vehicles is becoming reality.

Automated vehicles are those in which at least some aspects of a safety-critical control function; including steering, throttle, or braking; occur without driver input. Automated vehicles are classified by the National Highway Transportation Safety Administration according to six criteria: Level 0 requires no automation, Level 1 includes driver assistance, Level 2 has partial automation, Level 3 incorporates conditional automation, Level 4 adopts high automation, and Level 5 advances to full automation. Levels 0 through 3 require some level of human interaction, while levels 4 and 5 do not. Levels 4 and 5 are regarded as highly Automated Vehicles due to their ability to safely respond to accidents or failures in the system without the need for an operator.[49] Regulation of these vehicles is typically dependent on the level of automation that is included.

The U.S. Department of Transportation has been in the process of developing a Comprehensive National Plan for Automated Vehicle Initiatives for more than three years. In July of 2018 the department noted that, "…due to the nature of these technologies and the stage of development of the regulatory structure…it would be premature to publish a fully comprehensive plan at this time." It has indicated that the, "first iteration of this framework will be developed in 2019 and

will incorporate leading principles of comprehensive planning. During this period, President Trump directed that $100 Million be expended on planning, research and demonstration grants for highly automated vehicles[50].

In 2017 the U.S. House passed the *SELF DRIVE* act which establishes the federal role in ensuring the safety of highly automated vehicles. It also preempts states from enacting laws which relate to the design, construction or performance of highly automated driving systems. The bill does require safety assessment certifications for the development of highly automated vehicles or driving systems, and also requires that the developers adopt a written cybersecurity and privacy plan before offering the vehicle for sale[51]. This bill has not been taken up by the Senate for a vote, and remains unpassed by Congress.

At the present time, the federal government is responsible for setting Federal Motor Vehicle Safety Standards for new motor vehicles and equipment, enforcing compliance with the standards, investigating and managing the recall and remedy of noncompliant or defective vehicles, and communicating and education the public. The states are responsible for licensing human drivers and registering motor vehicles, enacting and enforcing traffic laws and regulations, conducting safety inspections, and regulating motor vehicle insurance and liability[52].

Texas was designated as one of only ten Automated Vehicle Proving Grounds in the country. The proving grounds are led by Texas A&M University, The University of Texas, and the Southwest Research Institute. These entities are engaged in conducting research for a variety of public and private entities. The Partnership includes DFW-Arlington, Austin, San Antonio, El Paso, Houston, Corpus Christi (Coastal Bend area), and Bryan/College Station. These areas have all been designated for testing of automated vehicles[53].

The 85th Legislature passed Senate Bill 2205 by Senator Hancock and provided a basic legal mechanism by which Level 4 and Level 5 automated vehicles may operate in Texas, either with, or without, a human operator and the conditions under which it may do so. This bill established the responsibilities for the owner of the vehicle and treats the owner as the responsible party for compliance with traffic and motor vehicle laws, regardless of whether an operator is in the vehicle. It required that automated vehicles operating on the public roadways must include a data recording device, comply with applicable federal laws and the Federal Motor Vehicle Safety Standards, be registered and titled in Texas, and be covered by insurance or self-insurance[54]. Perhaps of most significance to entities working to develop Level 4 and 5 autonomous vehicles, the bill also preempts any political subdivision or state agency from imposing regulations or rules related to this issue.

In a study conducted by the RAND Corporation, automated vehicles could be introduced to roadways in 2020 with a slight improvement of ten percent on the level of safety compared to a human driver. If the vehicles improve over time, by 2035, the vehicles could be closer to ninety percent safer than human drivers. This improvement could result in saving as many as 1.1 million lives between 2020 and 2070. RAND argues that the introduction of automated vehicles should be undertaken when they are objectively safer than human drivers, even if they are not perfect. [55]

One of the critical elements to the practical application of automated vehicles is the ability for it to securely send and receive communication signals and to remain impervious to external electronic interference with its operations. As the development of these systems moves forward, the cybersecurity aspect of its communications and software interface is even more important that the protections used in personal computers. The implications of an outside person having control of another person's vehicle raises significant issues for public safety and the potential use of these types of vehicles for terrorist acts raises the importance of ensuring system integrity and control[56].

Connected Vehicles

Connected vehicle technology allows vehicles to receive and share mobility and safety information between vehicles, people and transportation management systems. This technology could allow vehicles, smart phones and other devices to communicate information to vehicles and devices in proximate vehicles to allow them to warn drivers of dangerous circumstances such as a driver about to cause an accident or vehicles stopped in a roadway. The level of connection between vehicles is dependent upon the quality of the communications and the compatibility of the devices or applications used.

While newer technologies like radar, lidar, cameras and other sensors are increasingly used in individual vehicles, they are limited in their use to their range, and cannot warn of dangers beyond their operating range. The use of connected technologies increasing the range at which dangers can be identified, giving drivers additional time to react and take measures to protect themselves. The use of connected technologies also provides the basis upon which intelligent transportation systems can be incorporated to guide both automated vehicles and those with drivers to the best routes and speeds that will improve traffic flow and reduce the potential for accidents[57].

House Bill 1791 by Chairman Pickett, passed in the 85th Regular Legislative Session, granted authority for vehicles which have onboard communication systems to allow for the exchange of relative motion information to travel in closer proximity to each other than allowed under current roadway safety limits. This bill allows vehicles to communicate with each other and to have the act of braking by the vehicle in the lead automatically cause the trailing vehicle to initiate braking as well.

Unmanned Aerial Systems

Unmanned Aerial Systems (UAS); also known as drones, flying robots, unmanned aerial vehicles, and a host of other names; are becoming increasingly present in both the commercial and civilian sectors. These devices are remote-controlled flight systems which, due to not having to carry a pilot, can be smaller and are able to remain aloft for longer periods of time. With the inclusion of photographic or other recording and communication equipment, the drone can also be used to provide direct video links or recordings to its user. As a consequence of the increasingly fast-paced development of drones and their applications, the regulation of these devices has become an ongoing struggle for federal and state entities with responsibilities for the regulation of airspace, the protection of the public safety, and the securing of individual privacy.

Congress has designated the Federal Aviation Administration (FAA) with authority to regulate the areas of airspace use, management and efficiency, air traffic control, safety, navigational facilities, and aircraft noise at its source. The FAA is required to "…develop plans and policy for the use of the navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace[58]." The FAA is also directed to "…prescribe air traffic regulations on the flight of aircraft (including regulations on safe altitudes)" for navigating, protecting, and identifying aircraft; protecting individuals and property on the ground; using the navigable airspace efficiently; and preventing collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects[59].

The FAA has established rules for the use of UASs through multiple avenues. UAS users may operate their device under the Special Rule for Model Aircraft or under the FAA's Small UAS Rule. Under the Model Aircraft, UASs under fifty-five pounds may be used for hobby or recreation if it is registered with the FAA, are required to fly within visual line-of-sight, avoid other aircraft, notify airports if flying within five miles, never fly near emergency response efforts, and the operator follows all of the regulations related to model aircraft. Under the Small UAS rule, the drone must be registered, under fifty-five pounds, flown within visual line-of-sight, not be flown near other aircraft or over people, not be flown in controlled airspace without FAA permissions, and only fly during daylight or civil twilight at or below four-hundred feet. Under the Small UAS rule, the operator of the drone must also get a remote pilot certificate from the FAA.

In order to avoid the development of a "patchwork" of laws and regulations, the FAA has made clear that Congress has preempted the field with regard to the issues addressed above, and that state regulation in these areas is not permissible. Within the framework of federal statutes and FAA regulations, the FAA has recommended that any state or local laws which would place restrictions on flight altitude, flight paths, operational bans, or any regulation of the navigable airspace be reviewed with the FAA prior to adoption. The FAA has also indicated that mandating equipment or training for UAS-related activities would likely be pre-empted.

Outside of the limitations suggested above, the FAA has indicated that legislation or regulations regarding a requirement to obtain a warrant prior to the use of UAS in police surveillance, proscribing the use of UAS for voyeurism, prohibitions on the use of UAS in hunting and fishing, and denying the use of UAS with firearms or similar weapons would be within the state's purview[60].

The state of Texas has implemented a number of statutes which apply to the use of UAS. In the 83rd Legislature Regular Session, HB 912 by Representative Gooden addressed privacy concerns of citizens that UAS operators could record pictures, videos, or conversations when the person had an expectation of privacy. The statute lays out a list of acceptable times when recordings could be taken and with specific individuals able to do so. Examples of items on the list include individuals such as researchers, UAS test sites, U.S. military operations, utility companies carrying out specific activities related to their industry, under the auspices of a search warrant, and for specific law enforcement purposes. Any individual who records another by the

use of UAS, outside of the individuals described in the code, would be in violation of the statute and subject to a class C misdemeanor and a person who disclosed, displayed, distributed or otherwise used the recording would be subject to a class B misdemeanor. A civil cause of action was also created. Finally, the statute requires law enforcement agencies in counties with a population of more than 150,000 to report on the use of drones on an annual basis[61].

HB 1481 by Representative Murphy was also passed in the 84th Legislative Session and created a criminal offense for flying a UAS within four-hundred feet vertically of an identified piece of critical infrastructure or close enough to cause a disturbance. Critical infrastructure included refineries, power plants, chemical plants, water and wastewater facilities, TV and radio transmission facilities, and dams, among others. Exceptions were defined to include government agents, law enforcement officials, or the operators of the facility.

HB 2167 by Representative Smith added private or independent colleges to the academic purpose exception, and also added professional surveyors and engineers to the exception as long as no individual is identifiable in the image. HB 3628 by Chairman Geren authorized DPS to promulgate rules to either prohibit the use of UAS around the capitol, or to authorize limited UAS use around the capitol and makes an offense a class B misdemeanor.

HB 1643 by Representative Springer in the 85th Legislative Session was passed to expand the definition of critical infrastructure to include any telecommunication structure or concentrated animal feeding operation. The bill included a requirement that a fence or other physical barrier to exclude intruders around oil or gas drilling sites; crude oil storage tanks; any oil, gas or chemical production facility; an oil or gas wellhead; or any oil and gas facility that has an active flare would be considered critical infrastructure. The description of the exception allowing a commercial operator to be exempt from the statute was clarified to require that the operator be in full compliance with appropriate FAA regulations and have all required FAA authorizations. Perhaps most significantly, the bill also established preemption of state law over regulation by local governmental entities with limited exceptions. SB 840 by Senator Zaffirini added telecommunications providers to the list of entities excepted from the image capture limitations and included images taken by or for law enforcement solely for the purpose of border security on property within twenty-five miles of the border under the law enforcement exception.

Committee Recommendations:

1) The implementation of highly autonomous vehicles should be closely monitored to ensure that further action to protect the public may be taken as needed.
2) TxDOT should continue to expand its programs related to the use of dynamic messaging signs to improve safety and provide greater driver knowledge of road conditions, weather events and safety announcements.
3) Any regulation of unmanned aerial systems should provide the public with appropriate protections, while allowing the commercial development of new innovations.
4) The attachment, carrying, or use of weapons, explosives, or hazardous chemicals on Unmanned Aerial Systems by non-military individuals or entities should be prohibited.

Charge 7: *Review the current state of infrastructure at Texas' international shipping ports and border ports of entry in Texas. Identify transportation-related impediments to international trade and estimate the impact of those challenges, including border wait times, on the state's economy. Make recommendations for improvements to facilitate international trade and economic growth.* (Joint charge with the House Committee on International Trade & Intergovernmental Affairs)

Committee Action:

The Transportation Committee and the International Trade & Intergovernmental Affairs Committee met jointly in Weslaco, Texas and received testimony on March 20, 2018 from the Port of Victoria, the Port of Brownsville, the U.S. Customs and Border Protection Service, the Texas Department of Public Safety, the Texas Association of Manufacturers, Union Pacific, the Texas Trucking Association, TxDOT Maritime Division, and the U.S. Army Corps of Engineers.

Background:

MARITIME PORTS

Texas is a leader in the international maritime shipping industry. With eleven deep draft ports, and six shallow-draft ports, Texas handles approximately five-hundred million tons of freight each year. This figure represents more than twenty percent of the total shipping in the United States. With more than 116,000 jobs directly related to the shipping operations, it has a significant impact on the Texas economy.

Many ports in Texas are experiencing dramatic growth in recent years. The Port of Houston handles more imports and exports than any other U.S. port and handled 2.4 million twenty-foot equivalent units (TEUs) or shipping containers in 2017. The Port of Beaumont ranks fifth in total tonnage nationally and serves as the largest military outload port in the world. The Port of Corpus Christi has become the largest exporter of crude oil in the country and ranks sixth overall. The Port of Galveston is the fourth busiest cruise embarkation port in the U.S. and served more than 1.8 million passengers in 2017[62].

One of the biggest advances for the Texas ports was the expansion of the Panama Canal. The expanded canal allows larger container ships, bulk vessels, liquefied natural gas tankers, and liquefied petroleum gas tankers to move through the canal and to Texas ports. The ability to service these vessels is of significant importance to the ports, and the requirements for them to safely traverse the passages into the ports and berth is of critical importance. The depth of waterways approaching the ports and the depth of the ports themselves is a continuing issue as these vessels can require drafts of up to fifty-five feet when fully loaded. Currently, to enter Texas ports, these vessels are required to lighten their loads due to the shallower port depths.

The Gulf Coast Intracoastal Waterway which is an eleven hundred mile shallow-draft, protected waterway that connects ports from Brownsville to St. Marks, Florida. Texas is home to three-hundred seventy-nine miles of the waterway, and handles sixty-three percent of the total traffic on the waterway. The waterway serves as a vital component for the petrochemical and manufacturing industries in Texas. While the waterway is important to Texas, the federal government and the United States Army Corps of Engineers (USACE) is responsible for its maintenance and operation. It is intended to have a minimum depth of twelve feet, but due to inadequate funding to the USACE, the depth is now only nine feet, forcing barges to lighten their loads to ensure passage.

The source of funding for the operation and maintenance of dredging and widening is typically one-hundred percent federal and comes from a 1/8 of one percent tax on the value of imported cargo. Although the USACE is responsible for the dredging and maintenance of the channels, funding from Congress is infrequent and insufficient to meet the needs. In FY 2017 the Galveston District had $243 Million of projects and received funding for $131 Million[63].

In 2015 the 84th legislature, recognizing the critical nature of the ports to Texas, authorized $20 Million from the Texas Mobility Fund for port capital improvement projects. Due to constitutional restrictions, the funds were expended on public roadway projects that enhanced port connectivity. The 85th Legislature approved up to $20 Million each year of the 2019-2020 biennium in Rider 45 of the General Appropriations Act. The funds were designated to be used to fund roadway projects to improve connectivity. The Port Authority Advisory Board has identified $32.3 Million in projects for the biennium.

The 85th Legislature also passed Senate Bill 28 which created the Ship Channel Improvement Revolving Fund. The purpose of the fund is to finance qualified projects through a revolving loan program and finance projects to deepen or widen ship channels which meet certain criteria. Currently, there are four projects which meet the qualified criteria. While the fund was created, no funding source was provided to get the program established and operational.

The ports often face significant challenges receiving support for maintaining and expanding the ship channels. In the face of significant rain events which bring silt down the rivers and deposit them in the ship channels as the water moves into the gulf the dredging of the channels is of crucial importance.

This has a significant impact on Texas ports' ability to attract and service the large container ships and crude oil carriers that are now utilizing the expanded Panama Canal. As Tony Bennett from the Texas Association of Manufacturers said, "It’s essential for Texas port infrastructure to be able to attract ships of this size to keep up with global competition.[64]"

In the aftermath of Hurricane Harvey, many Texas ports experienced significant silting of their channels and berths. The Calhoun Port Authority restricted vessels to a thirty-one feet draft as opposed the normal operations of thirty-six feet. Shippers are faced with the loss of $25,000 to $50,000 for each foot of draft lost. This can cause shippers to move from berthing at ports which cannot meet their loaded draft requirements and the corresponding loss of economic value to Texas. The Port of Freeport also noted that had the improvement project been completed prior to

Harvey, they would not have needed to divert deep-draft vessels or light-load crude oil tankers. The Port of Corpus Christi's deepening and widening project would have allowed two-way traffic earlier after the storm and increased their ability to return to normal operations.

At the Port of Houston tens of millions of tons of sediment were deposited in the channel, causing shoaling of up to ten feet in some areas. This will continue to impact the four-hundred ship and barge berths along the channel as the silt moves through the waterway or is pushed through by normal rain events. The port estimates that the economic impact of one foot of shoaling is $281 Million to the U.S. economy[65].

The Army Corps of Engineers is also responsible for the Flood Risk Management program which works to reduce overall flood risks[66]. The type of flooding that was experienced during and after Hurricane Harvey could have been mitigated through the development of additional flood control mechanisms. The construction of levees and floodwalls could lessen the dramatic nature of the flooding and reduce the amount of silt that was deposited in the ship channels. This again is a question of funding as the list of available projects is significant for the rivers feeding into Harris and Fort Bend Counties alone.

The Port Authority Advisory Committee through TxDOT is in the process of working with a consultant to develop the statutorily required maritime port mission plan. Within the plan are three distinct reports: the Texas Ports Capital Program Report, the Port Connectivity Report, and the Ship Channel Improvement Project Report. The capital report will provide a summary of the projects, plans or studies that could enhance trade, promote cargo and passenger cruise movement, enhance security, increase port revenues, provide economic benefit to the state, or connect maritime ports to another transportation route. The connectivity report will provide an overview of the road and rail links to Texas ports, determine future needs to improve multi-modal connectivity, and assess funding and financing options. The ship channel report will look at the four improvement projects that have been approved by Congress, as well as those projects that are currently in the feasibility study phase. This mission plan will be submitted to the Governor, Lt. Governor and the Speaker of the House on December 1, 2018[67].

Projects to widen and deepen existing ship channels and the Gulf Intracoastal Waterway also face challenges due to the lack of direct federal or state requirements to identify underwater infrastructure such as pipelines and cables, or requiring contractors working in these waterways to verify the locations of these facilities. This has led to incidents such as one near Port O'Connor, Texas in April of 2018 when a dredger working on the intracoastal waterway struck a gas pipeline causing an explosion and the closing of the GIWW and Matagorda Ship Channel.

BORDER PORTS OF ENTRY

The one-thousand two-hundred fifty-five mile border that Texas shares with Mexico is one of critical importance to the economy of Texas and the nation. Twenty-eight vehicle-crossing points, including fourteen for commercial vehicles, and four railroad crossings serve as key commerce and tourism links between the two countries. These crossing points handled more 3.8 million commercial vehicles representing $318 Billion in trade between Texas and Mexico in 2016. This represents an increase of more than seventy-one percent from 2005.

The increase in trade has resulted in a predictable increase in the volumes of truck traffic between the two countries. As the volume has increased to seventy-three million tons in 2016, the wait times at the border inspection stations have risen accordingly. And, these volumes are only expected to rise further with estimates that by 2045 the tonnage volume will reach two-hundred eleven million tons[68].

To move across the border from Mexico into Texas, a truck must pass through U.S. Customs and Border Protection booth at which point they may be sent forward or diverted to a secondary inspection. During the inspection, the CBP may also have their inspection augmented by other federal agencies such as the U.S. Department of Agriculture, the Food and Drug Administration, and others. During this process, federal officials can inspect the truck and trailer, the contents of the load, and the documentation regarding the vehicle and the load. The purpose of the inspection is to prevent the transportation of terrorists, weapons, illegal substances, trafficked individuals, and to ensure that the vehicle and trailer meet U.S. Department of Transportation requirements. After this inspection, which generally takes a few minutes, but may take up to an hour, the truck is then routed to the Texas Department of Public Safety Border Safety Inspection Facility.

Once the vehicle arrives at the DPS facility, it is weighed and visually inspected while the cargo manifest and immigration documents are reviewed. Once this is accepted, the vehicle is allowed to proceed into the country. However, if the vehicle is not in appropriate working order, is overweight, or the documentation is not acceptable, the vehicle proceeds to a secondary inspection facility. The secondary DPS inspection station conducts more thorough inspections of engines, brake systems, axles and other evaluations to determine operational capability. Vehicles can be removed due to overweight status, issues related to the driver such as intoxication or immigration documentation problems, or the vehicle not meeting safety standards.

The CBP testified that the DPS facility at the Colombia Import lot adjudicates close to 100% of the traffic that leaves the CBP facility. This is a high variation from the number of DPS inspections at the World Trade Bridge (WTB). At the WTB DPS does not have a permanent inspection facility and conducts intermittent inspections throughout the week. The consequence is that shippers are incented to use the WTB rather than the Colombia checkpoint, increasing the volume at the WTB.

The increase in tonnage coming across has led to significant wait times which impede the flow of commerce and reduce the efficiency of operations[69]. The hours of operation and staffing of the border facilities has also been argued to create additional limitations on the amount of traffic that can move through the crossings. However, CBP has indicated that expanded hours, starting at 7:00 a.m., have yielded limited success as the shippers choose not to begin movement of merchandize across the border until between 9:00 and 10:00 with the majority of those before that time being empty trailers. In Pharr the early hours yield about one-hundred trucks per hour which does not increase to two-hundred per hour until after 9:00[70].

The current one-time crossing fee for commercial vehicles is $13.20, which may be paid online or at the port, and the annual user fee is $404. Most carriers purchase the annual permit and many carriers choose to purchase the online one-time crossing pass. However, there are significant numbers of shippers that choose to pay the one-time fee at the port. This creates additional congestion and diverts personnel which could be used for other tasks.

The inspection process at the border crossings has been continually reassessed since the inception of NAFTA. California and Arizona inspection stations are co-located, allowing for the inspections to occur simultaneously. Texas is the only state which does not share facilities with the CBP. "After speaking to industry representatives, researchers and DPS officials the consensus is that the arrangement is inefficient and adds to overall crossing times. " However, in 2014 Captain Jessie Mendez, the head of the Border Truck Safety Inspection Program at the time also noted that those states have also expressed displeasure with the joint structure, and compensation variations between DPS and federal inspectors can cause friction[71].

TxDOT has developed the Texas Freight Mobility Plan with the most recent iteration in 2017. Within the plan, TxDOT has identified more than two-hundred fifty projects costing $3.56 Billion related to the movement of freight in the districts around the border ports of entry. Of these projects, TxDOT has planned forty-six projects costing $415 Million in the period between 2016-2020. These projects should lead to increased traffic flow both to and from the border ports of entry and reduce the congestion due to truck traffic in these areas. The infrastructure necessary to alleviate current congestion and prepare for the continuing increased traffic through the ports remains a critical element of improved commerce across the border[72].

Committee Recommendations:

1) The Ship Channel Improvement Revolving Fund should be funded to provide necessary resources for the deepening and widening of qualified ship channels at Texas Ports.
2) The Railroad Commission, the General Land Office and the Port Authority Advisory Committee should work with stakeholders and the appropriate federal agencies to make a recommendation to the legislature regarding the inclusion of underwater infrastructure in the Texas Underground Facility Notification program or a similar program.
3) The Department of Public Safety should continue efforts to work collaboratively with U.S. Customs and Border Protection to develop a revised inspection process which allows more efficient overall inspections and reduces wait times at the border and make such recommendations to the legislature by October 2020.
4) TxDOT should increase the prioritization of TxDOT funding that would be dedicated to the improved freight corridors proximate to the border ports of entry.

Charge 8: *Evaluate the impact energy exploration and production have on state and county roads and make recommendations on how to improve road quality in areas impacted by these activities. (Joint charge with the House Committee on Energy Resources)*

Committee Action:

The Transportation Committee received invited testimony on this charge on April 17, 2018. The committee heard testimony from the Texas Department of Transportation, Dewitt County, Victoria County, Karnes County, the Texas Oil and Gas Association, the Texas Independent Producers and Royalty Owners, the Association of Energy Service Companies, and the Permian Basin Roadway Safety Coalition.

Background:

Texas has been one of the critical areas of oil and gas production in the United States since the start of the 20th Century. The Comptroller reports that from 1935 to 2017, more than 62 Billion barrels of oil have been produced from Texas wells. This averages out to more than 763 million barrels produced per year during that period[73]. While there have been many cycles of boom and bust in the Texas oil and gas industry, the most recent five year period from 2013 to 2017 produced an average of almost 922 million barrels of oil per year from an average of 186,000 producing wells.

Texas places a charge on oil production at a rate of 4.6 percent. In 2017 this generated more than $2 Billion for the state. These funds were appropriated to three separate funds. 37.5 of the funds are distributed to both the State Highway Fund and the Economic Stabilization Fund. The remaining 25 percent is distributed to the Foundation School Program. This is a significant source of revenue for the state, but is as variable as the price of oil.

The most recent oil production is based predominantly on the use of hydraulic fracturing which uses high-pressure injection of water containing sand into a well to create fractures in the rock formations, allowing oil and gas to flow more readily. This fracking process requires significant resources in order to bring a well to production. A recent study found that each well in the Barnett Shale, Eagle Ford Shale, and Permian Basin required between nine-hundred eighty-eight and one-thousand seven-hundred eight truck loads to develop a well[74]. Once the well is in production, it will require between sixty-six and four-hundred eighteen additional truck loads per year for the life of the well. In the event that the well requires re-fracturing, it may require between eight-hundred one and fifteen-hundred twenty-one additional truck loads.

Much of the development and production in the Barnett Shale, Eagle Ford Shale and the Permian Basin are conducted in locations that are accessible only through the county road systems. Most county roads were constructed with the expected agricultural and local traffic demands for a twenty year period. The engineers that design these roads base their efforts on historical trends

and project future demands from past use. This can lead to significant road degradation issues if the estimates are dramatically lower than the actual future usage. It is also very difficult for TxDOT and counties to estimate future infrastructure demand in the energy sector as the variability of the industry based upon the price of oil and gas results in significant traffic variation. In 2018 the Permian Basin recorded four-hundred forty-four rigs operating compared to one-hundred thirteen in 2017. The Eagle Ford Shale has seventy-three rigs in 2018 compared to one in 2017[75]. There is also significant variation in the level of traffic as road use moves from development to production[76].

Roads that have been designed to handle regular light vehicle traffic and seasonal truck traffic have not been able to withstand the much more frequent and heavier load necessitated by the oil shale developments. An average personal vehicle weighs approximately four thousand pounds. The heaviest non-overweight eighteen wheel truck weighs eighty-thousand pounds. The simple mathematics suggests that the truck would have an impact twenty times greater than the personal vehicle. However, studies have shown that the actual impact to the road is based upon the weight to axel ratio. When this is taken into consideration, the overall impact to the road for the truck is eighteen thousand nine times greater than the impact from the four thousand pound vehicle. And overweight permit trucks that carry one-hundred thousand pounds have an impact that is forty-two thousand seven-hundred fifty-three times greater than the personal vehicle. If one assumes that the development of a fracking well requires one-thousand two hundred trucks weighing eighty-thousand pounds, it is the equivalent of more than twenty-one million four-thousand pound vehicles impacting the road[77].

As a result of the development of these areas for fracking, counties that have been impacted are seeing dramatic degradation of their roads and a significant negative impact on local traffic, as well as the development of the fields. Studies have estimated that the impact on secondary state highways and local roads between $1.5 Billion and $2.0 Billion per year. It has also been estimated that additional costs of between $1.5 Billion and $3.5 Billion per year, due to vehicle damage and lower operating speeds, has also been driven by road damage. In terms of individual impacts due to these conditions, the frequency of traffic accidents and fatalities have risen due to increased traffic volume in these areas. The Permian Basin currently has approximately two percent of the state's population, but has recorded ten percent of its traffic fatalities[78].

Since the fracking boom began, the Texas Department of Transportation has allocated significant resources to the secondary state highway systems in the oil and gas development areas. Of the thirty-seven and a half percent of the Oil and Gas Severance taxes that are directed to the State Highway fund, fifteen percent is statutorily allocated to road construction and maintenance related to the oil and gas activities[79]. Under its Unified Transportation Program, TxDOT currently has $2.1 Billion allocated to the energy sector state highways in the next ten years, or an average of $210 Million per year. TxDOT continues to work with the oil and gas industry to prioritize projects in line with current transportation needs[80].

The 83rd Legislature in 2013 sought through Senate Bill 1747 to address the funding of county road improvements. SB 1747 created the Transportation Infrastructure Fund (TIF) which was funded by the legislature. These funds were to be used in counties which had experienced significant road degradation due to the energy sector traffic. Counties were required to provide

matching funds of either 10% (economically disadvantaged counties) or 20% from the remainder. The bill also created County Energy Transportation Reinvestment Zones (CETRZ) which allowed counties to determine a tax increment for areas affected by Energy Sector activities. Any tax increment was to be expended for matching funds to the (TIF) or for transportation infrastructure projects.

Since that time, the state has appropriated and counties have expended or encumbered to spend approximately $224.5 Million in state funds on these energy road projects. However, no new state funding has been provided to this mechanism. And, after issues arose regarding the constitutionality of the CETRZ through Attorney General's Opinion KP-004 in 2015 which argues that under the Texas Constitution, Article VIII, Section 1-g, counties are not expressly allowed to establish Tax increments for the purposes of a reinvestment zone, the CETRZ was repealed by the 85th Legislature in SB 1305. The TIF fund was not included in the repeal, and remains a viable mechanism for the distribution of funding to the counties impacted by the oil shale development and production.

During the 85th Legislative Session, two other bills were proposed that could have provided additional revenue to the counties affected. HB 3614 by Chairman Morrison sought to change the ad valorem property tax methodology. Current law includes the increase in property value attributable to oil and gas well production in the first year in the county ad valorem tax rate calculation in contrast to the manner in which increases in property value for other improvements are excluded. This bill would treat the increase in property value due to production of oil or gas from wells like other property improvements and exclude it from the county ad valorem tax rate calculation in the first year of production, providing an additional source of revenue for counties to address degrading county roads.

Had HB 4231 by Representative White passed, it would have created a mechanism to take two percent of the revenue from oil and gas production taxes and allocated it proportionally to the counties based upon the amount of taxes generated by wells in those counties. This would have generated approximately $66 Million to $76 Million per year in additional support for the counties.

There have also been efforts in Texas and other states to increase the use of both rail lines and pipelines to transport both material for well development, such as frac sand, pipe, and injection water, and oil and gas from producing wells[81]. Rail lines already link to refineries and fracking sand mines, but the expansion of loading and unloading transfer points is necessary to improve this application. Railroads can also expand and contract operations quickly based upon the needs of the oil and gas industry. Texas currently has more than ten-thousand five hundred miles, making it the state with the largest number of miles[82].

Texas also has more than four-hundred sixty thousand miles of pipelines, an increase of almost sixty thousand miles since 2012. These include both interstate and intrastate lines. Pipelines are used for many different purposes related to the oil and gas industry, including small diameter gathering lines from the well to a distribution point, crude oil transmission lines from producing areas to refineries, refined product lines, highly volatile liquid lines, carbon dioxide lines, and water lines for injection wells and recovered water. The oil and gas industry, including the

pipeline operators, continue to expand the development of additional capacity for both the transmission of oil and gas from wells but also to bring necessary water to the wells.

TxDOT has the authority to lease right-of-way to pipelines and has done so for more than two-hundred thirty-four separate leases for pipelines. The state has also authorized rural rail transportation districts (RRTDs) which are developed at the county level. RRTDs may carry out all activities, including bond issuance, necessary to establish and maintain railroad and intermodal facilities. While both pipelines and rail lines offer substantial opportunities for reducing the number of oil and gas-related vehicles on Texas roads, the "last-mile" of roads from the well location to the rail line or pipeline will still be predominantly on county roads[83].

Committee Recommendations:

1) A reliable funding source to provide transportation infrastructure funding to counties impacted by the energy sector traffic should be designated.
2) DPS should increase enforcement of oversize/overweight permits on the state highway system in the areas impacted by energy sector traffic.
3) The Railroad Commission should increase its efforts to encourage expansion of pipeline capacity in the oil and gas producing regions of the state to reduce the reliance on surface transportation infrastructure.

Charge 9: *Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 85th Legislature. In conducting this oversight, the committee will also specifically monitor the implementation of the TxDOT Sunset legislation and related management actions.*

Committee Action:

The Committee received testimony on February 7, 2017 regarding implementation of legislation impacting the Texas Department of Transportation and the Texas Department of Motor Vehicles from the following entities: Texas Department of Transportation, the Texas Department of Motor Vehicles, and the Texas Sunset Commission. Written testimony was also received.

Background:

TEXAS DEPARTMENT OF TRANSPORTATION

The Texas Department of Transportation (TxDOT) provided an outline of the actions that they have taken to implement legislation from the 85th Legislature. As this included SB 312 by Nichols, the TxDOT Sunset Bill, seventy individual pieces of legislation, and significant riders in SB 1, there were numerous issues to be addressed.

SUNSET RECENT HISTORY

TxDOT was under Sunset Review in 2008-09 for the 81st Legislature at which time the Sunset bill did not pass, and the legislature continued TxDOT for another two year period. The 82nd Legislature in 2010-11 received recommendations from the Sunset Commission, passed the TxDOT Sunset legislation in Senate Bill 1420 and continued the agency for another four years. This was intended to allow an opportunity in the 85th Legislature to review the goals designated in the Sunset Reviews from both 2009 and 2011, assess the progress being made by TxDOT, and designate additional changes as necessary.

Senate Bill 1420 focused on the transparency, accountability and reliability of TxDOT. This included a long-range planning process that integrates all planning efforts into a singly 24-year plan with specific long-term goals. SB 1420 also established the Unified Transportation Program which provided a ten-year plan to develop and authorize construction of transportation projects within specific, defined categories of funding priorities.

TxDOT was also directed to increase public involvement within the decision-making process for the development of planning and projects. The legislature extended the authority of TxDOT to enter into a per year maximum of three design-build contracts for projects costing $50 Million or more through 2015 and added additional requirements on private entities participation. Comprehensive development agreements (CDAs) were also authorized for specific TxDOT

projects listed in statute as were CDAs for certain Regional Mobility Authorities. These projects were required to have the appropriate environmental clearance by September of 2013 with the exception of Highway 99[84].

CURRENT SUNSET ACTIONS

The 85th Legislature passed the TxDOT Sunset Bill SB 312 by Nichols. Within the bill the legislature has directed TxDOT to take numerous actions that will impact their operations in the coming years. The following list of issues addressed in the Sunset Bill provides the respective action taken by TxDOT or the Texas Transportation Commission.

- TxDOT is required to include clearly defined system strategies and performance measures within the statewide long-range plan.
    - Rules Adopted July 2018
- TxDOT is required to incorporate transportation system strategies, goals and measurable targets in each plan or policy effort.
    - Rules Adopted July 2018
- TxDOT is required to conduct a comprehensive analysis of the effect of allocations on accomplishing the goals in the long-range transportation plan and publish the methodology and results on its website and to stakeholders.
    - Part of the Uniform Transportation Program annual development process.
- TxDOT required to develop a plan and rules to increase public involvement and transparency in the Unified Transportation Program and document any changes on the website and in a public meeting.
    - Rules adopted July 2018 and part of the Uniform Transportation Program (UTP) annual development process
- TxDOT is required to prioritize and approve all projects in the UTP before projects may be funded and requires it to prioritize the projects based on its potential toward achieving transportation goals.
    - Rules Adopted August 2018
    - 2019 UTP adopted August 2018
- TxDOT is required to develop performance measures for key steps in the project development process for the districts and track whether the districts are meeting the appropriate mix of projects. It is also required to provide stakeholder input into the planning, review and monitoring process.
    - Rules adopted July 2018 and part of the UTP annual development process
- The Commission is required to adopt rules related to the alignment of state and federal funding forecasts and project recommendation criteria for TxDOT and Metropolitan Planning Organizations. It also requires rules to govern the timeline and review process for the ten-year transportation plans and stakeholder involvement in the development.
    - Rules Adopted July 2018 and part of the UTP annual development process
- TxDOT required to update its long-term passenger rail plan every five years and includes additional analysis regarding proposed passenger rail lines on highway issues.
    - Management Action Completed by TxDOT

- TxDOT required to publish on its website transportation system strategies, goals, measurable targets and performance measures, including the methodology used to determine progress.
    - Found in 2019 UTP.
- TxDOT required to publish the statutorily-required statewide transportation progress report including analysis of funding decisions and project selections.
    - Found in 2019 UTP
- TxDOT required to conduct a comprehensive review of the project information reporting system (Project Tracker) and develop a plan for improvement with internal and external users.
    - Rules adopted July 2018 and Project Tracker was updated during the Summer of 2018.
- Law Enforcement are required to submit crash reports to TxDOT electronically.
    - Rules Adopted September 2018
- TxDOT required to improve the development of its long-range plan for aircraft by including additional measures.
    - TxDOT revised and published the 2018 State Passenger Aircraft Fleet Replacement Plan in August 2018.
- TxDOT is required to develop new contract provisions for low-bid construction, maintenance and building contracts to address unsatisfactory progress on the part of contractors and establish by rule the circumstances under which a particular contract remedy or sanction would be applied. The bill provides specific direction regarding the calculation and imposition of liquidated damages and requires TxDOT adopt additional contractor penalties for delayed highway projects. The bill also requires TxDOT to consider the number of work days in the contract and factors beyond the contractor's control before assessing a contractor penalty.
    - Rules Adopted August 2018
- TxDOT is required to begin evaluating contractors and establish an appeal process for contractors who believe their ratings are unfair.
    - Rules Adopted August 2018
- TxDOT is prohibited from awarding contracts unless the contractor participates in E-Verify.
    - TxDOT participates in E-Verify
- TxDOT required to have a public hearing if a project is substantially changed.
    - Rules Adopted August 2018
- TxDOT required to communicate with public officials in local municipalities when highway closures would be during periods of high commercial activity or increased travel. The provision also requires contracts to include specific days when the highway may not be closed.
    - Policy memo sent to TxDOT districts/
- TxDOT must publish on its website semiannually the list of all completed highway projects by district and whether it was completed on schedule, ahead of schedule or behind schedule as well as whether it was on budget, over budget, or under budget.
    - Reports posted on TxDOT Construction Division website.

- After September 1, 2017 TxDOT is required to be repaid for any assistance to a toll facility and prohibits toll equity grants. Requires the funds repaid to be used in the district from which the toll revenue was received.
    - Rules Adopted April 2018.
- TxDOT is prohibited from adding a tolling element to any currently operating non-tolled HOV lane unless it meets the requirements of Section 228.201 of the Texas Transportation Code. It also prohibits the consideration of frontage roads when calculating the number of non-tolled lanes to be maintained under Section 228.201(a)(3).
    - Policy memo sent to TxDOT districts.
- TxDOT prohibited from operating SH 255 in Webb County as a toll project.
    - Tolls have ceased.
- TxDOT required to operate Cesar Chavez Freeway in El Paso as part of the state highway system and without tolls if the Camino Real Regional Mobility Authority Approves.
    - TxDOT waiting on CCRMA to approve the removal of the tolls.
- TxDOT is required to revise its toll collection, enforcement and pay-by-mail processes. It reduces the total administrative fee for unpaid invoices with a maximum of $6 per month or $48 per year. It also limits the misdemeanor charge to one per year and allows electronic review of invoices if selected by the consumer.
    - Rules Adopted January 2018
- TxDOT is allowed to approve outdoor signs up to 85 feet that existed before March 1, 2017 and allows the rebuilding of the sign at that height.
    - Rules Adopted February 2018

GENERAL APPROPRIATIONS ACT (SB 1)

Senate Bill 1 provided TxDOT with an appropriation of $26.6 Billion which was an increase of more than $3.5 Billion from the 2016-17 biennium. This included an increase of $2.1 Billion in federal funding, and a decrease in bond proceeds of $1.4 Billion. The largest increase was the addition of $2.9 Billion in Proposition 7 funds of which $613 Million was appropriated to debt service on Proposition 12 bonds.

- Rider 44 provides up to $30 Million in authority to purchase land or other real property for the construction of buildings and facilities.
    - TxDOT is moving forward with its plans to consolidate staff into a central facility which will be developed in the coming years.
- Rider 45 directs TxDOT to spend up to $20 Million per year on public roadway projects to improve port connectivity.
    - The Port Authority Advisory Committee has identified the projects to be funded, and TxDOT is moving forward with funding as needed.

OTHER KEY LEGISLATION

- HB 62 by Representative Craddick prohibits texting while driving and requires TxDOT to post notification signs on interstates and U.S. highways entering the state.
    - Management Action Completed by TxDOT
- SB 1877 by Senator Perry allows TxDOT to send notice to contractors by email as well

as traditional mail resulting in savings on printing and postage.
    - Management Action Completed by TxDOT
- SB 1138 by Whitmire created the *Blue Alert* system to aid in the capture of suspects who have injured or killed a law enforcement officer through highway dynamic messaging signs.
    - Management Action Completed by TxDOT
- HB 2639 by Chairman Pickett establishes a *Silver Alert* to notify drivers of a search for a missing person with Alzheimer's through highway dynamic messaging signs.
    - Management Action Completed by TxDOT
- HB 3087 by Chairman Morrison requires TxDOT to establish standard lighting for highway maintenance vehicles and requires other entities to follow TxDOT standards.
    - Management Action Completed by TxDOT
- HB 1140 by Representative Anderson creates a new funding category for public transportation grants by splitting the current urbanized area category into two distinct units based upon size.
    - Management Action Completed by TxDOT
- SB 977 by Senator Schwertner and Rider 47 in the General Appropriations Act prohibits the use of state funds by TxDOT on private high-speed rail with limited exceptions based upon statutory obligations.
    - Management Action Completed by TxDOT - Will Require Ongoing Reporting
- SB 28 by Senator Creighton created the Ship Channel Improvement Revolving Fund for the deepening and widening of port access. It also increased the Port Authority Advisory committee from seven to nine members.
    - Management Action Completed by TxDOT - pending final review by TxDOT Compliance Division.
- SB 1523 by Senator Nichols designates TxDOT as the agency responsible for safety oversight of public transit rail systems which makes the state compliant with federal law.
    - Management Action Completed by TxDOT - pending final review by TxDOT Compliance Division.
- SB 1522 by Senator Nichols allows the Texas Transportation Commission to determine the number of members on the Aviation Advisory Committee and requires aviation experience for a majority of the members.
    - Management Action Completed by TxDOT - Rules Adopted July 2018
- HB 2646 by Representative Martinez allows TxDOT to acquire property for a project prior to the environmental clearance, excepting eminent domain.
    - Management Action Completed by TxDOT
- SB 2006 by Senator Watson continued the state's ability to regulate commercial signs after previous portions were challenged constitutionally in court.
    - Management Action Completed by TxDOT - Rules Adopted February 2018
- SB 1349 by Senator Watson allows TxDOT to transfer the Camp Hubbard property to the TxDMV.
    - TxDOT is moving forward with its plans to consolidate staff into a central facility which will be developed in the coming years.

TEXAS DEPARTMENT OF MOTOR VEHICLES

The Department of Motor Vehicles (TxDMV) is implementing several bills from the 85th Legislative Session. Key bills will be noted and the actions taken by the department will be included below the bill information.

- SB 1349 by Senator Watson granted TxDMV the authority to own and control real property. This effort is a coordinated one with TxDOT who is transferring the portion of Camp Hubbard, where TxDMV has its headquarters, to TxDMV.
    - TxDMV is working with TxDOT on a timeline for the transfer which is dependent upon TxDOT's ability to consolidate its personnel. This process could take up to five years.
- HB 2070 by Representative Smithee provides stronger protection for consumers by revising the vehicle "Lemon Law" and remove inconsistency in the code.
    - TxDMV has completed all necessary actions.
- HB 1790 by Chairman Pickett allows the replacement of a handicap placard that is seized by law enforcement through a simple application process rather than a previously required hearing.
    - Rules Adopted on February 8, 2018.
- HB 3254 by Chairman Phillips revised TxDMV authority with regard to motor carrier operations. The main change was to improve enforcement authority against "chameleon carriers" which attempt to avoid enforcement actions by changing the name of the company.
    - TxDMV is continuing to implement this legislation.
- Senate Bill 1524 and Senate Bill 1383 which address overweight vehicles has been previously discussed in the oversize/overweight section.
    - Rules adopted and fully implemented
- HB 2319 by Representative Paddie provides for an oversize permit for sealed intermodal shipping container on a limited portion of highway in Bowie County.
    - Fully implemented
- SB 1062 by Senator Perry permits electronic signatures on title transfer-related documents as well as electronic lien implementation.
    - Fully implemented
- HB 1247 by Chairman Pickett and SB 1501 by Senator Zaffirini changed the requirements by which a vehicle storage facility may foreclose its storage lien.
    - Both bills fully implemented
- HB 3131 by Representative Martinez provided additional transparency to the posting of certificates of authority to send vehicles to a demolisher.
    - Fully implemented
- SB 2075 by Senator Rodriguez related to the registration of motor vehicles. It allows for the online receipt from renewal to serve as proof of registration for thirty-one days.
    - Fully implemented
- HB 2663 by Chairman Pickett provides for the replacement of a lost registration sticker by counties.
    - Fully implemented

- HB 1793 by Chairman Pickett allows a commercial motor vehicle registered in this state to be registered without a state inspection sticker if they have a valid inspection in compliance with federal standards.
    - Fully implemented.
- SB 2076 by Senator Rodriguez requires the department to study with DPS the efficiency and necessity of the titling, registration, and inspection of vehicles in the state and determine if any portions can be eliminated.
    - The report is being prepared and will be complete by the December 31, 2018 deadline.
- HB 1959 by Chairman Thompson required a study of alternative technologies for the registration of commercial vehicles and report the results by December 1, 2021. It also authorized TxDMV to initiate a pilot program to further study the technologies.
    - The study was originally specified to be completed by December of 2021, but due to legislative interest and the Sunset process in progress, the report will be completed by February 1, 2019.

Committee Recommendations:

1) TxDOT should report on its progress regarding the actions taken to meet the requirements in SB 312 to the House Committee on Transportation in the 86th Legislative Session
2) TxDOT should report on its progress regarding the actions taken to meet the requirements in HB 20 from the 84th Legislative Session to the House Committee on Transportation in the 86th Legislative Session.
3) TxDMV studies related to the titling, registration and inspection of vehicles should be presented to the House Committee on Transportation as soon as they are prepared to address potential efficiencies that may be gained.

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