



**Texas Freight Advisory Committee**  
**December 5, 2019, 8:30 a.m.**  
**IBC Bank 130 E. Travis Street, San Antonio, Texas**

**Attendees**

<b>Committee Member</b>	<b>Organization</b>	<b>Attendance</b>
Ed Emmett, Chair	Rice University	Present
Ron Beeson	East Harris County Manufacturers Association	Present
Russell Boening	Texas Farm Bureau	Not Present
Randy Brogoitti	Brogoitti Construction	Present
Paul Cristina	BNSF Railway	Designee Present (Megan Shea)
Drew Crutcher	Landgraf, Crutcher & Associates	Not Present
Bryan Daniel	Governor's Office of Economic Development and Tourism	Not Present
Michael Dyll	Texas International Freight	Present
John Esparza	Texas Trucking Association	Present
Roger Guenther	Port of Houston Authority	Not Present
Luis Hinojosa	Uni-Trade Forwarding, LLC	Not Present
Judge Clay Lewis Jenkins	Dallas County	Not Present
Carson Landsgard	H-E-B	Designee Present (Mark S. Lewis)
VACANT	Port of Corpus Christi Authority	Designee Present (Jeff Pollack)
Brenda Mainwaring	Union Pacific Railroad	Designee Present (Tyson Moeller)
Kevin McIntosh	Kansas City Southern (KCSR)	Not Present
Jeff Moseley	Texas Association of Business	Not Present
Rolando Ortiz	Killam Development, Ltd.	Not Present
Keith Patridge	McAllen Economic Development Corp.	Not Present
K. Alan Russell	The Tecma Group of Companies	Not Present
Carlton Schwab	Texas Economic Development Council	Not Present
Todd Stewart	Gulf Wind International	Not Present
Jack Todd	Trinity Industries, Inc.	Not Present
<b>Texas Transportation Commissioners</b>		
Laura Ryan	Texas Transportation Commission	Present
<b>Ex-Officio Members</b>		

Christopher Evilia	Waco MPO	Present
Erin Ford	Retired – Houston County	Not Present
Clark Greer	Coca-Cola	Present
Rep. Armando Martinez	Texas House Member, District 39	Not Present
Rep. Sergio Munoz, Jr.	Texas House Member, District 36	Not Present
Mayor Pete Saenz	City of Laredo	Present
Gerry Schwebel	IBC Bank	Present
Danny Smith	United Parcel Service	Not Present
Paul Treangen	TNW Corporation	Present
Matt Woodruff	Kirby Corporation	Present

### **Cambridge Systematics Team**

Elizabeth Welch	Cambridge Systematics
Hannah Santiago	Cambridge Systematics
Isabel Victoria	Cambridge Systematics
Katie Kirk	Cambridge Systematics
Mark Jensen	Cambridge Systematics
Paula Dowell	Cambridge Systematics

### **Other Attendees**

Akila Thamizharasan	TxDOT
Allan Rutter	TTI
Allison Blazosky	AAMPO
Andrea Chavez	Grace & McEwan
Anna Alicia Romero	Office of Senator Menendez
Bruce Mann	Port of Houston
Carlos Lopez	HNTB
Caroline Mays	TxDOT
Carlos Calle	TxDOT
Casey Wells	TxDOT
Curtis Morgan	TTI
Dan Seedah	Jacobs
Darran Anderson	TxDOT
Donna Adams	Atkins
Eddie Aldrete	IBC Bank
Eduardo Calvo	El Paso MPO
Gabriel De Ochoa	TxDOT
Gary Kuhn	Freight Shuttle
Gretchen Ivy	HNTB
Henry Sauvignet	IBC Bank

James Lovett	SH 130 Concession Company
Jeff Hathcock	NCTCOG
Jennifer Rodriguez	Kodiak Robotics
Joe Kelley	United Ag
Jolanda Prozzi	TTI
Jordan Coleman	Kodiak Robotics
Jorge Canavati	J. Canavati & Co. LLC
Kale Driemeier	TxDOT
Katie Turnbull	TTI
Ken Williams	Williams & Associates
Loretta Brown	TxDOT
Mark Aboso	TxDOT
Mark Borskey	Texas Trucking Association
Marty Boyd	TxDOT
Melisa Montemayor	HNTB
Michael Bomba	University of North Texas
Nancy Williams	Cockrell Foundation
Nicole Katsikides	TTI
Noah Oaks	TxDOT
Norma Garza	TxDOT
Peter Espy	TxDOT
Peter Smith	TxDOT
Roberto Rodriguez	TxDOT
Sean Stibich	Port of Victoria
Sherry Pifer	TxDOT
Tanner Voelkel	TxDOT
Tony MacDonald	Port of Corpus Christi
Travis Milner	TxDOT
Tricia Hasan	TxDOT
Veronica Green	H-GAC
Yvette Flores	TxDOT

## 1. Welcome and Introductions

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Chair Ed Emmett opened the Texas Freight Advisory Committee at 8:20 am and welcomed all attendees. Chair Emmett thanked IBC Bank for hosting the advisory committee meeting. Eddie Alverta, representing IBC Bank, welcomed all attendees and provided information about the facility. Chair Emmett thanked Commissioner Laura Ryan for supporting the TxFAC committee and introduced Caroline Mays, Director of the Texas Department of Transportation (TxDOT) Freight, Trade and Connectivity Section.

## 2. Recap of Nov. 28, 2018, Meeting and Summary of Today's Agenda, Objectives, and Expected Outcomes

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Caroline Mays thanked IBC for hosting and Chair Emmett and Commissioner Laura Ryan for their leadership and support for the Texas Freight Advisory Committee (TxFAC). Caroline Mays thanked all TxFAC members for their continued participation. She introduced her staff and the consultant team. Caroline Mays called for introductions from all meeting attendees. She then provided a recap of the discussion from the July 11, 2019, TxFAC meeting including highlights of the conversations and information presented concerning state and local truck parking issues. Ms. Mays outlined the objectives of the day's meeting for the group.

### **3. Panel: Emerging Freight-Related Technologies Issues, Challenges and Opportunities**

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Sherry Pifer, TxDOT Freight Planning Branch Manager, provided an overview of the panel and introduced the moderator, Darran Anderson, TxDOT Director of Strategy and Innovation. Darran Anderson introduced each of the panel participants, including Bruce Mann, Director of Freight Mobility at the Port of Houston Authority, and Jordan Coleman, General Counsel and Vice President of Policy at Kodiak Robotics. The panel engaged in several topics, including discussing the value of building infrastructure technology systems that help all motorists, like publishing reliable real-time data to aid the operations of commercial vehicles or passenger vehicles. They also discussed investments and planning for innovative regions to test deployments and investigate how systems integration can result in a more responsive transportation system (i.e. producing reductions in queue times at port facilities). Jordan Coleman described the current operations and future plans for the Kodiak Robotics autonomous commercial freight vehicles focused mainly on predictable, long-haul highway driving. The panel discussed future freight demand and potential workforce impacts of connected and autonomous vehicles (CAV) technology implementation. The following is a summary of the discussion of the TxFAC members:

Clark Greer, Coca-Cola, cautioned the group that considering CAV technology to displace jobs is an inaccurate interpretation because the industry is currently facing a long-haul driver shortage of around 60,000 drivers. He reminded the group that freight demand is growing and those jobs need to be filled to meet the demand so the space filled by CAV is not displacing existing jobs. He also mentioned that the industry already has the technology in place to understand more about trucking operations and the industry should begin to utilize that data to optimize the good movement system.

Chair Emmett asked about the approval process to operate CAVs on Texas roadways. The group discussed and referenced Senate Bill 2205, which allows for operation and sets requirements for driverless vehicles to operate on Texas roadways. Chair Emmett warned of a lack of knowledge of current operations of driverless vehicles among the general public. He presumes that the general public is unaware of the enabling

legislation and may have concerns about trucks operating on public roadways without explicit approval. The group discussed the importance of public awareness and outreach. Darran Anderson provided an overview of TxDOT's CAV Task Force and shared that it was designed to be the space for information and coordination on all ongoing CAV projects, investments, and initiatives in Texas. He also provided a high-level overview of private sector activities since the legislation was passed by 85<sup>th</sup> Legislature. Commissioner Laura Ryan mentioned that more policy and regulations may be needed.

Commissioner Ryan asked if Kodiak Robotics is providing data on its operations to TxDOT. She also asked if the operations of freight autonomous vehicles are currently designed to avoid peak periods to be advantageous to Texas residents and support TxDOT safety goals. She mentioned that the CAV Task Force will be important in developing recommendations on important data to collect from CAV operators. Jordan Coleman explained that the current operations of Kodiak Robotics freight trucks are focused on testing a wide variety of conditions. He explained that the diversity of data is important for the operational tests. They benefit from operating in traffic, in rain, in daylight, and at night because different aspects of the system need to be tested. Jordan Coleman explained the testing protocols and steps Kodiak Robotics facilitates prior to allowing the vehicle to operate on a public roadway. He mentioned one opportunity for data sharing could be focused on roadway inventory and maintenance issues. He explained that their vehicles have the benefit of collecting significant amounts of data on TxDOT's infrastructure which could be provided and leveraged to alert TxDOT of existing or imminent infrastructure issues, such as potholes or faded striping, allowing TxDOT to improve the system for the safety of all motorists.

Commission Ryan asked to learn more about the CAV Task Force. Darran Anderson shared that the CAV Task Force was developed in early 2019. The group is focused on more than ground transportation, they also discuss rail concerns and new technologies like unmanned aerial systems. Their role is to better understand the impacts and implications of these innovations on the TxDOT transportation system. The Task Force will address topics such as public awareness, data sharing and other topics of concern.

Jordan Coleman mentioned that data sharing is important, but warned that autonomous operations generate significant data and it is important to understand what specific data is essential to support TxDOT operations and planning. On the topic of data sharing, Bruce Mann shared that in order to truly optimize the efficiency of goods movement, an environment where all private sector and public sector entities trust each other is critical to facilitate that end goal. He said that type of environment could be created through an

innovation area piloted on a small scale to provide lessons learned prior to large scale implementation.

On the topic of community concerns related to autonomous trucks, John Esparza, representing the Texas Trucking Association, stated that the trucking industry has long had an image issue with community concerns and questions of what trucks bring in and out of communities. He envisioned that data sharing can help make a better transition in terms of community awareness and understand.

Mayor Pete Saenz of the City of Laredo asked if Texas is at the forefront of CAV technology. Darran Anderson stated that among U.S. states, Colorado and Michigan are ahead of Texas. In terms of autonomous vehicle implementation across the world, the U.S. and China are the leaders and Europe is the leader in the implementation of connected vehicle technologies. Darran Anderson told the group that TxDOT benefits from communication and collaboration with other states and countries to understand lessons learned and best practices.

Randy Brogoitti (Brogoitti Construction) stated that free enterprise will always be hesitant to share their data, he asked how TxDOT plans to mitigate that issue. Darran Anderson shared that the CAV Task Force is charged with working between the public and private sectors to investigate the data sharing opportunities and issues. He shared that California had the approach to regulate CAV operators heavily and required a significant amount of data from operators. Jordan Coleman added that the aim should be to find mutually beneficial opportunities for both public and private sectors to build important relationships that lead to an atmosphere of open data sharing. He shared that Kodiak Robotics has been pleased to find such a collaborative environment in Texas.

Peter Smith, TxDOT Transportation Planning and Programming Division Director, asked if Kodiak Robotics would be able and open to share data like the number of axles, the weight of vehicles, and origins and destinations. Jordan Coleman explained that if operators could provide the basic information gathered at weigh stations and avoid the stop to keep their vehicles in operations, they would gladly participate. Information sharing that can prove beneficial for both public and private sectors will be the most successful opportunities for data sharing. Peter Smith mentioned an internal I-10 Corridor Coalition working group that is concerned with similar questions pertaining to data sharing requests.

Commissioner Ryan asked for an update on the Freight Shuttle project. Bruce Mann shared that the Port of Houston Authority has benefitted from the freight shuttle project in that it has decreased the amount of deterioration on other infrastructure assets. He

explained that infrastructure investments, such as the Freight Shuttle, are going to face challenges in large scale deployment unless there are incentives and other mechanisms for implementation. An example of an incentive he provided was a potential tax deduction for infrastructure needed to support freight infrastructure within a private facility. He stressed that the industry needs to find a way for TxDOT, metropolitan planning organizations (MPOs) and the private sector to invest in efficient freight movement together. Bruce Mann stated that the public benefit of projects like the Freight Shuttle exists and can be realized at scale, but the cost-to-benefit ratio is not quite feasible yet. He thinks there is a huge public benefit of investing in those technologies, but cautioned that it would need significant investment and incentives to be realized.

#### **4. Panel: Freight Rail and Ports/Waterways: Industry Perspective and the User Experience**

Sherry Pifer introduced the second panel focused on the freight transportation industry perspective through the lenses of freight rail and ports/waterways. Sherry Pifer introduced each panel member including:

- Tyson Moeller, Union Pacific (UP) Railroad General Director of Network Development,
- Megan Shea, BNSF Railway Assistant Director of Public Projects,
- Sean Stibich, Port of Victoria Executive Director,
- Paul Treangen, TNW Corporation Chief Executive Officer,
- Matt Woodruff, Kirby Corporation Vice President of Government and Public Affairs,
- Joe Kelley, Commodity Switching Company General Manager and Export Manager for United Ag, and
- Tony MacDonald, Port of Corpus Christi Director of Operations.

The panel discussed transportation strategies that currently work well for freight rail and port/waterway industries. The panelists highlighted successful strategies pertaining to coordination, coordinated advocacy, scheduling, and safety improvements.

Discussing the biggest infrastructure bottlenecks in their supply chains, the panelists spoke about operational challenges, specific infrastructure issues, and regulatory hurdles. Tyson Moeller mentioned the bottlenecks they face are less about infrastructure and more about product clearance at the U.S.-Mexico border. He mentioned their goal is to get commodities, like fuels from Texas, precleared at the border to ensure a quick turn for rail. Traditionally, UP will bring commodities from Chicago to the border, which allows for five days lead time for clearance; with the new inexpensive energy markets in Texas, UP can be in Mexico in 24 to 36 hours, and a speedier border crossing process is needed to ensure rail is a feasible option.

Paul Treangen (TNW Corporation) spoke about the disparities in infrastructure investments when comparing the shortline railroads to the large Class I railroad investments. As a key part of the overall railroad network, shortline railroads also need to prepare themselves to handle rail cars at weights up to 286,000 pounds. He mentioned that proper interchanges are needed to handle the increasing demand and large customers for a seamless system.

From the port perspective, the infrastructure needs are inside the gate on private property, Sean Stibich (Port of Victoria) explained. Mr. Stibich shared that the Port of Victoria has limited rail infrastructure, which requires careful planning. He stated that the Port of Victoria's capacity is two unit trains. Tyson Moeller explained to the group that a single unit train usually represents a single commodity, typically 100 railcars or more. One railcar represents about 3 to 3.5 trucks, so a single unit train represents 300 trucks that are off the road if transportation by rail. Joe Kelley (Commodity Switching Company / United Ag) shared that an issue at the smaller ports is the lack of rail infrastructure and for ports and companies to take advantage of the efficiencies that the Class I railroads have to offer. He explained that while there is some rail infrastructure at the ports, more is needed in order to support trains traveling to Mexico or California.

Tony MacDonald (Port of Corpus Christi) mentioned that a barge on the Gulf Intracoastal Waterway (GIWW) is typically a two-barge tow, each about 200 feet long, 54 feet wide, and representing 150 trucks; so, a two-barge tow represents a total of 300 trucks. Tony MacDonald shared that the GIWW has a significant amount of capacity. He mentioned a few challenges including the bottleneck of the Brazos Flood Gate, currently being studied by TxDOT, where the GIWW crosses the Brazos River. They are hopeful for funding to build a replacement in 2021. Another bottleneck that would benefit from improvement exists where the GIWW crosses the Colorado River at Matagorda, TX. Tony MacDonald explained that in terms of capacity constraints, they see mostly operations constraints at many ports and terminals, and docks are not ready to receive the barge, to create the need for "fleeting space," or a space to park the barges while they wait to be loaded or discharged in a nearby but safe location. Sherry Pifer asked if the fleeting challenges create congestion issues. Tony MacDonald responded that it can, but the industry can be strategic in barge placement to avoid those issues.

Megan Shea mentioned that a potential opportunity for TxDOT would be to help streamline the Class I inspections and mechanical inspections at the U.S.-Mexico border to eliminate that bottleneck. She referenced an existing program currently working on the U.S.-Canada border. She shared that BNSF tries to identify future infrastructure bottlenecks before they become an issue. BNSF also researches the timing barriers to strategically match customer needs and hours of operations, often 8 am to 5 pm schedules, to the 24-hour operations of BNSF. Tyson Moeller added that many of the bottlenecks that affect rail are located on roadways. There are more trains running in urban areas but there is also more urbanization across the state which is

leading to more blocked crossings. He shared that it is important to work with TxDOT and MPOs to find key grade separations to maintain resident mobility and keep trains in operation.

Sherry Pifer welcomed attendees to ask questions of the panels. Below is a summary of the questions and discussion.

Peter Smith (TxDOT) asked what advancements or paradigm shifts the panelists envision with the advancements in technologies. Megan Shea shared that longer trains for long haul operations will always be the most efficient for BNSF. She also mentioned that Positive Train Control (PTC) has been a tremendous advancement in technology and safety for railroads. PTC keeps railroad crews safe, the trains on the rails and provides safety for the general public. PTC utilizes signalized track segments to send information to the train to adjust its operations (like speed and grade) based on the information provided. Two crew members in the cab are an extra layer of safety.

Clark Greer (Coca-Cola) asked if the public is aware that the trains operate themselves. Tyson Moeller stated that the engineer is present and monitors the operations and the railroads operate on their own right-of-way. Tyson Moeller mentioned that the information from railroads could be leveraged for CAV operations, like lights and gates providing advanced information on a blocked crossing or other issue. Tyson Moeller asked TxDOT to keep UP engaged with the CAV discussions.

Caroline Mays asked to hear about the advancement of drone technologies within the rail industry. Megan Shea stated that the BNSF drone teams fly out for bridge and track inspections. They also have a geometry car designed to measure the track and send photos of defects to the network operations center and the maintenance teams in the field to address the issues. Tyson Moeller mentioned that UP retrofitted a boxcar to run with freight across the network to feed live data records to the track or cars to capture and predict rail issues.

Allan Rutter (TTI) asked why there is a limited number of trains operating between Houston and Dallas. Tyson Moeller responded that at that distance, trucks are very competitive with rail. If a container arrives in Houston in the morning, that product could be in Dallas in the evening if transported by truck. That same product would require a minimum of four to five days by railroad. He explained that the railroad capacity exists, but trucking provides better response time and customers decide which price and timeframe work best for their needs. Clark Greer explained that truck service is often easier and the shipping decision is often based on schedule needs and the amount of inventory in the warehouse. Bruce Mann shared that the Port of Houston has up to three trains per week between Houston and Dallas and with a constant and reliable service,

the demand is now increasing. The volume is sufficient to support three to five trains per week. Those short-haul moves can be competitive for both truck and rail transport. Clark Greer mentioned that there must be industry demands supported in both directions. Tyson Moeller stated that as the ports build more density, there will be a rail solution for the Houston-Dallas corridor. With the relative lack of congestion on the roadways, truck transport is more competitive in places like Texas versus the East Coast. Commissioner Laura Ryan summarized the conversation by stating the demand for freight movement between Houston and Dallas exists, the ability to move the freight by rail exists, the potential efficiency of rail transportation exists, but it is a business decision not to utilize rail transportation in the Houston-Dallas corridor. Tyson Moeller concurred and mentioned it is a business decision from the rail operator's perspective and from the customer's perspective as well.

Commissioner Laura Ryan asked how the panelists would respond to the challenge for TxDOT to continue to invest in private innovation to find alternatives to building roads to address congestion and maintenance as the railroad operators and customers are making business decisions that may be counter to TxDOT objectives. Tyson Moeller stated that one solution may be incentives to get more freight on rail. He explained that UP Railroad includes incentives in their pricing structure, but a public subsidy would help support that shift.

Chair Emmett added a historical perspective and explained that 30 years ago, freight railroads did not want to participate in intermodal exchanges. H-E-B will probably never be a rail customer out of Port of Houston. However, if a big distributor or manufacturing facility in the Dallas-Fort Worth area with a supply chain that can handle a four to five day reliable trip between Houston and Dallas, they will choose rail. Those customers with just-in-time needs will continue to demand truck transport. Tyson Moeller added that both BNSF and UP railroads have a strong rock network within Texas. San Antonio and Austin are rich in limestone which is in demand in Houston and the railroads can load in 24 hours and unload in 24 hours. The business model works for rail transport, even though it is a short distance trip.

Randy Brogoitti (Brogoitti Construction) mentioned a customer that imports a significant amount from Asia. Even with the widening of the Panama Canal, that customer still finds that it is more cost-effective to import from Asia through the Port of Long Beach using rail to transport to the intermodal facilities along I-20 in Dallas to distribute. They do not use the ports in South Texas because of the five to seven-day delay (due to the vessel travel time through the canal) of getting the items to the warehouse and a cost differential.

Sherry Pifer asked about the rail infrastructure needs and opportunities inside the ports. Sean Stibich (Port of Victoria) mentioned that the ports need more opportunities for grants at the state and federal level. He cited one specific example at the Port of Victoria concerning a rail bridge that supports three Class I railroads: the mainlines for the ports of Corpus Christi, Brownsville, and Mexico. The 60-year-old bridge needs replacement and the Port of Victoria has noted it as a risk for a potential future failure event. Tyson Moeller added that in the 1950s, the Port of Victoria asked if they could dredge a channel under the Southern Pacific railroad. They complied with the request, but the ownership of the bridge transferred to the Port of Victoria due to the increased maintenance needs of the facility. The bridge replacement is key because it supports the Brownsville Subdivision, the only connection to the ports of Corpus Christi and Brownsville and to the U.S.-Mexico border. UP railroad has duplicative routes, but they are less efficient.

Joe Kelly (Commodity Switching Company / United Ag) shared that a lot of the railroads in the shortline networks serve rural areas. With the major infrastructure investments going to the urban areas, the rural highway networks are not being maintained to handle the truckloads of freight. Joe Kelly stated that shortline railroad support is critical to those rural freight transport needs and a key element of the economic development for those rural areas. He explained that each shortline network averages 15 to 20 miles in length. He warned that if shortlines are lost, businesses will leave. He shared that 20 to 30 percent of the nation's rail miles are shortlines, but they represent five percent of the revenue of a move and 30 percent of that revenue goes to maintain the railroad. He stated that shortlines are an important part of the transportation system, but there is no funding to support the system. Joe Kelly described legislation passed to allow for state funding but mentioned the funding mechanism remained unfunded. He described a potential tax credit for those investing in the shortline infrastructure that was unsuccessful at the legislature. He shared that over 4,000 miles of rail lines have been abandoned since the 1970s. He stated that it should be a priority to find a way to preserve the rail network.

Caroline Mays asked where there are areas of opportunities for shortline railroads today and if there are opportunities for shortlines to provide solutions in the Houston-Dallas corridor. Joe Kelly stated that it is important to consider modal equity and that tax dollars investing in the road network are supporting specific modes and affecting the price of those services and the decision on how customers ship. Joe Kelly provided an example of an interchange at Gonzalez, TX where they work with UP, but are unable to handle unit trains, so they cannot support the volume of goods movement, which is a large impact on UP. There is currently no return to drive the shortlines alone to make that

investment. They have applied for a Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant, but funding does not exist for these significant projects needed to enhance the network.

Chair Emmett mentioned that Rural Rail Districts were created. He asked if there are any railroads that are not abandoned, either railbanked or placed in a defuncted Rural Rail District. He mentioned that may be a task for TxDOT to look across the state to identify opportunities and perhaps reappoint members to reactivate those boards. He shared one recent example of the reopening of the Rosenberg to Victoria line.

Gerry Schwebel (IBC Bank) shared that the number of trains in Laredo is increasing, which is challenging to manage due to congestion at the border crossing. The railroads have been increasing activity. Truck volumes continue to grow but not at the same rate. He asked about the trends and if they have seen agriculture becoming more relevant as a major component, especially in light of the trade deal (United States Mexico Canada Agreement (USMCA)) with Mexico. Tyson Moeller shared that perishables, like potatoes and onions from Idaho to the East Coast, are in UP's planning. With new technologies, UP can transport perishables easier. Gerry Schwebel stated that agriculture imports are increasing, however, the process of crossing and inspection at the border slows down trade, impacts the activity at the port of entry, and reduces the region's toll revenue.

Tyson Moeller mentioned that railroads are helping transport fuels across the U.S.- Mexico border, a market that did not exist a year ago. UP worked with Kansas City Southern (KCS) to work with an international crew concept to speed up border crossing time. Currently, they stop the train on the bridge and the domestic crew departs and the international crew takes over operations. Tyson Moeller said they are still looking for opportunities to remain on the train so the train does not need to stop. Caroline Mays mentioned that TxDOT is trying to continue dialogue with U.S. Customs and Border Protection (CBP) to work an arrangement to keep the crews onboard the train to reduce delay. Caroline Mays offered to be a part of future conversations to support the request to reduce border wait times. She mentioned that convening the TxFAC members and discussing these issues and collaborating to resolve them is why TxFAC exists.

Mayor Pete Saenz (Laredo) remarked that the dual inspection process between Mexico and the U.S. has supported efficiencies at the border. With the increasing frequency of trains, the mobility of pedestrians and vehicles is affected. Mayor Saenz encouraged research on high priority grade separations to support community mobility and freight movement. Tyson Moeller mentioned that TxDOT conducted a rail crossing separation study several years ago and made recommendations on several concepts. He also

shared that often the railroads will contribute five percent of the project cost that can be used for the local match.

Sherry Pifer asked the panel what is the role for TxDOT in addressing the major freight bottlenecks. Megan Shea stated that TxDOT's role is continuing to advocate for all transportation systems, especially rail. She mentioned that TxDOT made a significant investment in studying rail in the Dallas-Fort Worth metroplex, which will benefit all parties involved and keep trains moving more efficiency.

Tony MacDonald mentioned that for the GIWW, TxDOT served as the local sponsor and has the responsibility as the local sponsor to provide upland placement areas for dredge materials. He also mentioned that TxDOT is helping improve efficiencies of the GIWW through the Brazos flood gate and Colorado River locks. Those issues have needed study for a long time, but the Army Corps of Engineers could never find the funding to support the research. TxDOT came forward and helped raise the attention level and supported the study with seed money which resulted in the future support of federal funding for a significant project. Tony MacDonald thinks that the project is a good example of leveraging small amounts of seed money for significant future federal investment.

Matt Woodruff (Kirby Corporation) stated he would like to see TxDOT get involved in the dredging business and giving the water depths needed to meet the demand. Sean Stibich stated that there should be greater awareness of what programs exist today designed to support the ports in Texas.

Paul Treangen (TNW Corporation) shared that he would like to see TxDOT reinforce the Rail Division. Working with other states, Paul Treangen has seen state departments of transportation play a pivotal role, especially during times of crisis. According to Mr. Treangen, the TxDOT Rail Division is currently focused on passenger rail, Class I railroads, and state-owned railroads. He mentioned that priority projects supporting shortline railroads in the Texas Freight Mobility Plan were cut and did not end up in the final version, which was unfortunate because it is important to fund and support the growth of the shortline railroads.

Tyson Moeller mentioned several things that TxDOT has done well, including studies with public agencies in the Laredo, San Antonio and Austin areas, identifying key railroad crossing separations. The next task will be for TxDOT to fund those projects identified in the studies. He explained that when the railroad is willing to relocate for the public good, the railroads face significant challenges due to the cost of those projects. One project example he provided is on the east side of Houston, where the MPO is

funding a portion at \$46 million, but the project is still a \$300 million project. Projects identified with significant community benefits are opportunities for TxDOT to join and support with funding.

Chair Emmett mentioned several projects that serve as examples of where TxDOT can play a role. He mentioned supporting smaller counties that do not have the financial resources to participate in large projects could be an opportunity for TxDOT. He provided an example in Liberty County and talked about the project on US 90. That area will keep developing, so if TxDOT could provide support before the major residential growth, it would be useful. According to Chair Emmett, another opportunity for TxDOT to play a role is in the conflict between passenger rail and freight rail, which causes delays to goods movement in the DFW metroplex. The final opportunity Chair Emmett mentioned was the bridge at the Port of Victoria, which has the potential to impact three railroads. He suggests TxDOT could support the Port of Victoria and other critical infrastructure for the freight network with an insurance policy or loan and ensure critical infrastructure is put back in service as soon as possible.

Carlos Calle (TxDOT) asked Tyson Moeller to describe the project in Hays County with the City of Kyle. Tyson Moeller explained that the City of Kyle asked UP to relocate a siding to avoid blocking major crossings. The Capital Area MPO (CAMPO) helped fund the project. UP, the City of Kyle, and the County also provided matching funds. There is another potential key grade separation identified through that process that Hays County, the City of Kyle and CAMPO are interested in completing.

## **5. Implementation of the Texas Freight Mobility Plan (TFMP)\_2018 – Freight Network Technology and Operations Plan**

Mark Jensen, Cambridge Systematics, provided an overview of the Freight Network Technology and Operations Plan and discussed how the plan will help TxDOT and the freight industry, who are the plan stakeholders, and what is involved in the plan development process. Below are the discussion and questions as discussed by the TxFAC members:

Christopher Evilia (Waco MPO) mentioned that the 23 Texas MPOs each have a Metropolitan Transportation Plan that would be important to reference for relevant information.

Bruce Mann (Port of Houston Authority) stated that it is important for the plan to focus on the key freight generators in the state, like the borders and the ports. He mentioned that the value in the process is getting all parties involved to discuss solutions beyond just

technology, but also how the networks, operations, and infrastructure work together. He further stated that when we talk about freight, we talk about the ports. Mark Jensen mentioned that the project team met with stakeholders from the Port of Houston as a part of the stakeholder outreach process and they are also planning a visit to the border crossing area in early 2020. Mark Jensen asked that TxFAC members consider providing contacts of any other individuals who may be interested in participating. Caroline Mays clarified that the Freight Network Technology and Operations Plan is focusing specifically on freight technologies with a multimodal perspective.

Gerry Schwebel asked if the project team had identified or researched the various pilot projects focused on moving freight across the border. Mark Jensen mentioned that the team is aware of older pilot projects focused on freight information across the border, but they are not aware of any new pilot projects. Caroline Mays mentioned the one ongoing pilot at the U.S.-Canada border using autonomous vehicles and scooters. She mentioned there is an appetite to understand the implications of CAV cross border operations. Mark Jensen mentioned that the San Diego Association of Governments (SANDAG) is currently working on a plan for data sharing opportunities and new operational strategies to improve the Otay-Mesa border crossing, but that is still in the planning stage. He also mentioned that the Texas A&M Transportation Institute (TTI) has an ongoing border crossing information system. Gerry Schwebel mentioned the Smart Port project in Arizona. He asked that if any other pilot projects arise to keep them on the radar for this plan.

Gerry Schwebel asked if the Texas-Mexico Border Master Plan team could take into consideration Mexico's five-year infrastructure plan to identify projects that may tie into Texas ports. Caroline Mays assured the group that this infrastructure plan information will be integrated into both the Border Master Plan and the next Texas Freight Mobility Plan. She mentioned that Mexico sees Texas as its largest priority and they made that clear with their infrastructure plan with specific projects that tie directly to Texas.

Mark Jensen noted a few Intelligent Transportation Systems (ITS) infrastructure priorities that were discussed during the Emerging Freight-Related Technologies panel including:

- Comprehensive real-time information for all trucks, not just new connected and automated trucks, in terms of incidents, terminal queues, work zones, and potentially information from gate processing
- Freight signal priority or dynamic signals based on truck traffic on a port approach

Clark Greer (Coca-Cola) mentioned that for companies like Coca-Cola or H-E-B, their trucks are operating on the same routes daily and their major cost hurdle is traffic gridlock. He mentioned that more companies operating at off-peak times could help alleviate some of the problems. He mentioned that truck driver apps are critical to their operations, but if there is an opportunity to provide those apps with better information, it would be beneficial to the entire freight system.

Mark Jensen asked if it would be helpful for the truck drivers to know where the staging locations are available close to the end location. Clark Greer said that they currently plan for staging locations if the drivers are operating longer than eight hours because they know they are required to stop for 30 minutes. He mentioned that information may be more beneficial for privately-owned truck drivers because every day is different and those operators are constantly making quick decisions.

Mark Lewis (H-E-B) stated that needs are different for private company fleets and owner-operators. He stated better information on the location of available truck parking would be useful. He shared that many owner-operators need parking for an extended amount of time based on when is the availability of shipping and receiving at their destination.

Mark Jensen asked if private company fleets might be willing to share information on road conditions. Clark Greer stated that the industry has an opportunity to use the information already collected through the federally mandated electronic control modules (ECM). The ECM requires the input of the origin and destination and it would be helpful to have support to find the most efficient route. Drivers are not allowed to be on the device as they drive, so automation of information received through onboard products would be key.

Bruce Mann predicted that by the time Texas grows to a population of over 50 million, freight will move at night. He asked that the plans and studies look long term and help support that transition.

Chair Emmett mentioned a quick win for TxDOT is to make SH 130 free for trucks. The highway is 13-miles out of route and if it was free to trucks, it could reduce the truck traffic on I-35. Mark Lewis also mentioned that a potential opportunity would be for private fleet operators to negotiate on the front end to pay for access to the toll road. He mentioned that owner-operators represent roughly half of the truck fleet however, and they weigh the costs for each trip. He commended TxDOT for the real-time feed showing the condition of highways.

Mark Jensen asked the group to share other strengths in the state of Texas. Bruce Mann stated that the biggest strength Texas has is the significant volume of freight within the state.

Randy Brogoitti asked if TxDOT is considering providing real-time parking availability at the private parking facilities. Paula Dowell (Cambridge Systematics) mentioned that the following presentation would provide information on the inventory of truck parking across the state which shows much of it is private parking. She mentioned that several states have taken on the role of hosting a platform for truck parking availability. She explained that some of the private sector providers see the benefit and opt-in to the platform and others do not. She explained that it is a cost consideration for private lots because outfitting a lot with over 100 parking spaces with the technology needed can be costly.

Mark Lewis mentioned the potential opportunity for truck parking developed along SH 130. He knows TxDOT owns land in the right of way and sees the opportunity for a public-private partnership to build parking facilities to redirect truck traffic off I-35.

Clark Greer stated that the best locations for parking along SH 130 would be matched with the eight-hour driving distance and mandated breaks. Mark Lewis added that the dynamic message signs providing drive time estimates to locations are useful. Caroline Mays mentioned TxDOT is deploying many of the strategies mentioned in the I-10 corridor.

Commissioner Laura Ryan asked that the team consider the future as it develops solutions and recommendations, especially considering that in three to five years, TxDOT will see more connected and automated trucks. She asked the team to consider how a TxDOT investment in a parking lot today could serve in the future and maximize the return on investment for the State.

Mark Jensen invited all attendees to reach out to him if they would like to be involved in the interview process.

## **6. Implementation of the TFMP 2018 – Statewide Truck Parking Study**

Paula Dowell provided a presentation covering statewide truck parking needs and strategies. The presentation provided an overview of needs, capacity strategies, technology, policy and outreach strategies, and the schedule and next steps for the study. A summary of the discussion is provided below.

Commissioner Laura Ryan asked how the high, medium and low need category designations were defined. Paula Dowell stated that the divisions between the scores were determined by looking at the distribution of the needs and the scores were divided by the natural breaks in the data. She mentioned that the scoring reflects the intensity of needs, not specific bottlenecks.

Paula Dowell asked the group to provide feedback on the potential capacity strategies outlined in the presentation. Chair Emmett said it was important to consider the impacts of the public sector providing free public parking. He asked if the private sector provides free parking. Paula Dowell stated the fees for parking vary. Some truck stops provide reservations for a fee. Sometimes parking services are provided based on fuel contracts with larger transportation providers. In general, owner-operators do not want to pay for parking. Chair Emmett mentioned an opportunity to multipurpose existing parking lots that are underutilized most of the time, like football stadiums. He shared several examples of potential opportunities including NRG stadium in Harris County on Loop 610, the AT&T Center in Bexar County on I-35, Sealy High School in Austin County on IH 10. Paula Dowell said there are often liability issues and maintenance costs for the property owners, but the idea is important to explore for regular parking needs, but also emergency parking opportunities if a facility is closed.

In response to the capital costs of converting TxDOT owner right-of-way, Jeff Pollack (Port of Corpus Christi) asked the project team if they found more creative ways to engage the private sector in finding a solution, especially with all the demands on state funding. He encouraged the team to find solutions that do not require TxDOT to build more facilities, especially in areas that will soon transition to support CAVs.

Paula Dowell explained that partnerships with the private sector are included in the policy and program recommendations. She explained that the private sector is often a willing partner, but they receive significant push back from communities during permitting and land development. Some examples of strategies include TxDOT potentially providing right-of-way, or providing tools to local governments and MPOs to mitigate community concerns.

Jeff Pollack stated those strategies seem aligned to a more appropriate role for TxDOT. He stated that TxDOT cannot be the only party providing solutions and he thinks the community should have a voice in freight movement so it is not driven solely by demand and proximity from the freight mobility perspective.

Caroline Mays added that TxDOT only owns and operates about 1,200 spaces for the entire state; TxDOT is not in the business of providing parking but instead to facilitate an

understanding of the needs and develop strategies to solve the issue. For TxDOT, the truck parking issue is a safety issue.

Jeff Pollack shared that the Port of Corpus Christi has major truck queuing issues. He shared that the challenge is to manage origins and destinations, scheduling deliveries, hours of operations. There is a technological and systematic approach to coordination which is tremendous. He encouraged TxDOT to avoid investments in the status quo of easy infrastructure solutions where technology solutions may be more appropriate. He mentioned that the Port of Corpus Christi is struggling with implementing hardware technology solutions, but those end-destination solutions can help with many of the congestion issues.

## **7. Open Discussion**

Chair Emmett closed the meeting. Sherry Pifer invited all TxFAC members to participate in the working group meeting following to support the work on understanding the economic role of freight in Texas. Chair Emmett thanked TxFAC members for their participation.

**The meeting adjourned at 12:08 p.m.**