



TxDOT DFW TSMO Capability Maturity Framework – Traffic Management October 2020

Summary Report

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List of Abbreviations & Acronyms

AAR	After-Action-Review
C2C	Center-to-Center
CCTV	Closed-Circuit Television
CMF	Capability Maturity Framework
CMM	Capability Maturity Model
D2D	District-to-District
DFW	Dallas-Fort Worth
FHWA	Federal Highway Administration
GPS	Global Positioning System
ITS	Intelligent Transportation System
NCTCOG	North Central Texas Council of Governments
TIM	Traffic Incident Management
TMC	Traffic Management Center
TMS	Traffic Management System
TRF	Traffic Safety Division
TSMO	Transportation Systems Management and Operations
TTI	Texas A&M Transportation Institute
TxDOT	Texas Department of Transportation
TxPROS	Texas Permitting and Routing Optimization System

Introduction

Texas Department of Transportation's (TxDOT) Dallas and Fort Worth Districts are in the process of assessing the region's transportation systems management and operations (TSMO) capabilities to support the Dallas-Fort Worth (DFW) TSMO Program Plan. The development of the DFW TSMO plan seeks to increase safety, reduce congestion, and improve transportation reliability in the DFW region by identifying cost-effective improvements in how the region operates and maintains the transportation system. In October 2020, TxDOT hosted a series of workshops to help determine a set of actions to support effective TSMO solutions and strategies. The process engaged both TxDOT staff and decision makers at stakeholder and partner agencies that regularly collaborate to manage and operate the roadway network. A previous series of Capability Maturity Model (CMM) workshops had focused on the six dimensions of CMM: culture, organization and workforce, business processes, performance measurement, systems and technology, and collaboration. Following those workshops, the Capability Maturity Framework (CMF) workshops focused on specific program areas and potential actions to advance operations.

These workshops were originally planned to occur as in-person workshops, however due to meeting restrictions related to the Coronavirus pandemic, they were conducted as virtual workshops. Kimley-Horn with Maldonado-Burkett hosted a joint Traffic Management Virtual Workshop via Microsoft Teams on Thursday, October 08, 2020. The participants were led in an open discussion of several topics and answered questions with responses that were captured via AhaSlides. This workshop focused discussion on how TxDOT manages traffic through the Traffic Management Center (TMC) operations in the Dallas District and the Fort Worth District, how the TMCs collaborate as well as support other districts, and how operational challenges like managing construction, weather, and planned special events can be improved. The goal of the workshop was to identify areas of strength as well as areas needing improvement. The information gathered will be used to develop an action plan that will facilitate improved traffic operations at and across district boundaries.

Virtual Workshop Overview

The CMF workshop aimed to provide information about Traffic Management strategies deployed in Texas, acknowledging a high degree of maturity in areas such as leadership involvement, event planning, service patrols, towing services, and incident scene management. Attendees were provided an overview of TSMO and Traffic Management and were encouraged to provide feedback on the various topics discussed.

In addition to the workshop overview, this document summarizes the questions asked of participants, key discussion points, and actions recommended to advance capabilities. The responses to the survey questions are summarized in **Appendix A**. The workshop presentation can be found in **Appendix B**.

Workshop Summary

Overview

On October 8, 2020 participants joined in the two-hour virtual workshop. **Table 1** summarizes the participants, role, and representing organization.

Table 1: Traffic Management Workshop Attendees

Attendee	Title	Agency
Tom Fowler	Program Manager	Kimley-Horn
Kent Kacir	Consultant Team	Kimley-Horn
Kelly Nicholas	Consultant Team	Kimley-Horn
Khushboo Patel	Consultant Team	Kimley-Horn
Karl Burkett	Partner	Maldonado-Burkett
Kirsten Hall	Administrative Technician	Maldonado-Burkett
Melanie Young	Senior Project Manager	Maldonado-Burkett
Karen Taylor	Executive Assistant	Maldonado-Burkett
Mike Burkett	Program Manager	Maldonado-Burkett
Terrie Stoeffler	Administrative Technician	Maldonado-Burkett
Martin Boakes	TMC Operations Manager	Maldonado-Burkett
Carlos Molina	Transportation Engineer	TxDOT, Fort Worth District
Brenan Honey	Mesquite Area Engineer	TxDOT, Dallas District
Chris Blain	Transportation Engineer & Supervisor	TxDOT, Dallas District
Craig Burgan	Traffic Systems Administrator for Dallas District	TxDOT, Dallas District
Jeff Bush	Director of Construction	TxDOT, Dallas District
Chulwuma Osemeke	Transportation Engineer	TxDOT, Fort Worth District
Dicky White	Transportation Engineer	TxDOT, Fort Worth District
Kimberley Clarida	Contract Specialist	TxDOT, Fort Worth District
Korin Adkins	Transportation Engineer	TxDOT, Fort Worth District
Mohammad Al Hweil	District Advanced Transportation Planning Director	TxDOT, Fort Worth District
Theresa Poer	Director of Operations	TxDOT, Fort Worth District
Anthony White	Traffic Incident Management (TIM) Coordinator	TxDOT, Fort Worth District
John Forbes	Traffic Systems Specialist	TxDOT, Fort Worth District
Jamie E Pierce		

Participants were provided an overview on the statewide TSMO Program Plan Project, followed by a series of questions to explore TMC coordination and cooperation. A PowerPoint presentation was used to direct the workshop and interactive slides via AhaSlides were used to capture audience feedback. Some of the questions were structured to obtain a level 1-4 rating on the districts' current maturity and capabilities. These questions were modeled after the Federal Highway Administration (FHWA) Capability Maturity Framework. Using this rating system, agencies identify their current level of capability and where improvements could be made. The four levels are as follows:

- **Level 1 (Performed)** - Activities and relationships are largely ad hoc, informal and champion-driven; substantially outside the mainstream of other DOT activities
- **Level 2 (Managed)** - Basic strategy applications understood; key processes support requirements identified and key technology and core capacities under development, but limited internal accountability and uneven alignment with external partners
- **Level 3 (Integrated)** - Standardized strategy applications implemented in priority contexts and managed for performance; technical and business processes developed, documented, and integrated into DOT; partnerships aligned
- **Level 4 (Optimized)** - Full, sustainable core DOT program priority, established on the basis of continuous improvement with top level management status and formal partnerships

Key Discussion and Takeaways

The presentation focused on five areas: Business Processes, Systems & Technology, Performance Measurement, Culture, Organization & Workforce and Collaboration. Below summarizes the discussion which occurred during the workshop.

Business Processes

Using the level 1-4 rankings, participants were asked the following questions to evaluate the maturity of the Business Processes in the region.

Table 2: Business Processes Questions

Business Processes Questions

To what extent do your districts coordinate business processes across district lines? (Levels 1-4 ranking)

How can district coordination be improved?

There were a range of responses, with the majority falling between capability levels 2 and 3. Participants felt that current district-to-district (D2D) coordination works well but acknowledged there is room for improvement.

Specifically, participants suggested:

- More high-level planning and discussion is needed to improve coordination (i.e., managed lanes across district lines and I-30).
- There is a need for more formalized (in writing) collaboration.

Systems & Technology

The following questions were posed to generate discussion and evaluate the Systems and Technology maturity in the region.

Table 3: Systems and Technology Questions

Systems and Technology Questions

How well do the districts coordinate website traveler information? (Levels 1-4 ranking)

Does your agency measure website usage?

How can website coordination and website usage be improved?

What is the feasibility of using Cloud based data sharing?

What barriers or logistical issues could arise when implementing web-based data sharing?

Would your district be interested in pursuing web-based data sharing ideas?

How well does the process work that calculates travel time across district lines (I-30, I-20, etc.)? (Levels 1-4 ranking)

How can the travel time calculation process be improved?

How well is data shared between districts so that travel time reliability can be calculated between districts? (Levels 1-4 ranking)

How can data sharing between districts regarding travel time reliability be improved?

How well do the districts handle incidents near the district lines? (Levels 1-4 ranking)

What improvements could be made? (Bearing in mind that quick clearance is the goal.)

How well does your permitting office/ Texas Permitting and Routing Optimization System (TxPROS) work with the TMC with respect to notification of special loads passing through? (Levels 1-4 ranking)

How can the permitting process be improved?

How are loads/permits tracked as they pass through the district?

Can the TMC vary the restrictions for permitted loads?

Are there procedures for handing off the load from one district to another? If so, how can these procedures be improved?

How prepared is your agency for Connected Vehicles? (Levels 1-4 ranking)

What plans have been made for Connected Vehicles?

Understanding the potential security implications on traffic and Intelligent Transportation System (ITS) networks with the advancing technologies, participants acknowledged there may be networking and privacy concerns to work through as well as agreements to define system and database sharing.

Most participants felt that traveler information sharing and coordination works well between districts, specifically for travel conditions and travel time calculation. However, it was noted that if the ITS networks between the Dallas and Fort Worth Districts were integrated, the TxDOT detectors would be a great back-up to the INRIX data currently being used.

While there is no formal monitoring of website usage, it is perceived that the TxDOT ITS website is primarily used by TMC personnel for reference of Closed-Circuit Television (CCTV) camera monitoring and not utilized often by the public. The popularity of phone apps and other navigation aids are relied upon more than www.drivetexas.org or DFW511.

The idea of sharing a cloud-based database or web app was brought up to allow for agencies to share resources, however this did not generate much discussion. There was a sense that the network security implications may be an issue and would likely be a bigger discussion and decision than the district level.

Cooperation between the permitting office/TxPROS and the TMC regarding special loads passing through the districts could be improved. Establishing a process/procedure between districts so the permitted load can be properly monitored as it crosses from one district to the other would be beneficial. Additionally, a corridor-wide messaging plan for TMCs was identified as a need and would be beneficial to cross-boundary or cross-jurisdictional communication and coordination, as well as overall traffic management.

Preparation for Connected Vehicles was identified as having the most room for improvement, as most participants stated that not much preparation has been done. There has been discussion and early planning for a potential pilot project. However, waiting on national standards will likely drive the schedule of such plans.

Performance Measurement

The following Performance Measurement questions were posed to generate discussion and evaluate the regions maturity.

Table 4: Performance Measurement Questions

Performance Measurement Questions
How well does your agency measure travel time reliability? (Levels 1-4 ranking)
How does your agency measure travel time reliability? At what frequency? How can this be improved?
How well does your agency measure uptime? (Levels 1-4 ranking)
How does your agency measure uptime? At what frequency? How can this be improved?
How well does your agency measure system build-out? (Levels 1-4 ranking)
How does your agency measure system build-out? At what frequency? How can this be improved?
How well does your agency measure TIM clearance time? (Levels 1-4 ranking)
How does your agency measure TIM clearance time? At what frequency? How can this be improved?
Does your agency measure alternate route use (work zone and TIM)? How (Bluetooth MAC address matching, Other)? At what frequency?
Does your agency measure performance of your communication network? How is this done? At what frequency? How can this performance measure be improved?
What other items not discussed are you currently measuring?

Based on the results from the 1-4 level ranking questions, there is a sense that the agency is doing well with performance measurement. However, there is a desire for improving the availability of travel time reliability data

among regional partners. Opportunities to increase ITS capabilities was identified as being constrained by funding. Participants keep a “wish-list” of projects, documented and at-the-ready for when funding becomes available for the additional infrastructure.

There was also indication that asset uptime is not accurately or consistently reported. Construction and planned activities that require assets to be offline should be classified as an exception to ensure accurate reporting. A consistent means of conducting these reports would help alleviate this issue.

Most respondents said that alternate route use is not currently being measured. There was some awareness that Texas A&M Transportation Institute (TTI) may be conducting a study on this that would be useful.

Culture

The following questions were posed to generate discussion and evaluate the Culture maturity in the region.

Table 5: Culture Questions

Culture Questions
What is the current level of cooperation between the two districts? (Levels 1-4 ranking)
How can district to district cooperation be improved?
Describe the roadblocks or barriers the districts face regarding cooperation.
Does your agency have a designated person (mobility coordinator) that is identified for D2D matters?
Does the current budget meet the needs of D2D coordination? (Levels 1-4 ranking)
Does your agency hold inter-district coordination meetings?
How often are these coordination meetings held? Can these be improved?
How well do the districts coordinate construction plans when a project is near or crosses district lines? (Levels 1-4 ranking)
What type of programs would provide motivation for better collaboration between districts?

Most workshop participants conveyed they felt the cross-district coordination was well established. As with all departmental coordination, there is always room for improvement. Suggestions provided by attendees include:

- Improved communication protocols; knowing who to call for various scenarios
- Formalized processes and responsibility assignments
- Agreement on an overlapping TIM program (district-to-district overlap)
- Increased TIM training
- Better established partnerships

Organization and Workforce

The following questions were posed to generate discussion and evaluate the Organization and Workforce maturity in the region.

Table 6: Organization and Workforce Questions

Organization and Workforce Questions

What is the cause of retention problems identified in previous TSMO meetings?

Is the maintenance of the managed lanes done internally or by contract?

Is the contract combined for all managed lanes?

Which district handles the contract?

How is the budget handled?

How well are the districts working together on managed lanes? (Levels 1-4 ranking)

No specific responses or suggestions were made to the staff retention discussion. The managed lanes maintenance component was described as done by contract but from a district-centric perspective. A recent project that crossed district boundaries was managed out of the Dallas District at the agreement of the Fort Worth District. This demonstrates an established coordination between the two districts to manage such managed lane projects.

Collaboration

The following questions were posed to generate discussion and evaluate the Collaboration maturity in the region.

Table 7: Collaboration Questions

Collaboration Questions

Are there command level incident communication issues?

What are the key challenges/barriers to the cooperation/communication/support between the districts?

Do the districts have any formalized collaboration to identify issues, develop action plans, timetables, and personnel for resolution?

Describe innovative approaches that might improve coordination and cooperation between districts?

How well are your agency's virtual TMC operations working? (Levels 1-4 ranking)

How can the current virtual TMC operations be improved?

Are there any highlights or things working well in your current plan that you would like to share?

The importance of collaboration within an agency and among partners cannot be overstated. With similarities to the discussion on Culture, there are a number of existing relationships that aid in effective collaboration. However, these relationships do not exist at all levels and among all staff. Fostering collaboration within each district and between districts will provide for a more open willingness to cooperate. Participants acknowledged that identifying a common meeting time is difficult but agreed building the lasting relationships would have long-term benefits. A couple of suggestions provided are:

- Regular meetings between TMC personnel to improve and maintain open lines of communication

- Frequent interaction between district personnel at all levels

A specific challenge related to special permitted loads crossing through multiple jurisdictions was provided as an example. Currently these loads are not tracked as they pass through a district. The TMC has no control over the restrictions for a permitted load (time of day or the route for a permitted load to mitigate impact on traffic flow). Having a process/procedure between districts so the permitted load can be properly monitored as it crosses from one district to the other would be beneficial.

Summary of Actions to Advance

The recommendations for improving D2D cooperation and coordination regarding Traffic Management are listed in **Table 8** as Actions to Advance. These actions were derived from the areas identified as needing the most improvement through input and discussion with workshop participants.

Table 8: Actions to Advance

Action	Owners	Dimension
Collaborate between districts to develop an organizational chart (with contact information) for ITS Operations personnel and responsibilities. Assign counterparts in each district who have similar roles.	TxDOT	Collaboration, Culture
Conduct regularly scheduled D2D Traffic Operations Workshops to encourage peer-to-peer interaction and coordination. Include various workshops for all personnel levels.	TxDOT	Systems & Technology
Document issues, action plans, training opportunities, and best practices at the D2D workshops.	TxDOT	Systems & Technology
Conduct incident specific "debrief" meetings within two weeks of major incidents. Develop documentation of lessons learned and needed improvements.	TxDOT	Systems & Technology
Re-energize the TMC website by establishing clear purpose, value and goals for the website. Track website activity by users. Consider how the website can support and interact with more popular mobile device applications.	TxDOT	Systems & Technology
Develop methods and procedures to integrate TMC operations with the oversize load permitting process that will allow TMC operators to expect and track permitted loads and to offer restrictions and alternatives to requested routes and times.	TxDOT	Business Processes, Systems & Technology
Implement permit load tracking using Global Positioning System (GPS) devices, cell phone, or similar system that can be tied to permit and accessible from TMC.	TxDOT	Systems & Technology
Determine the value alternate route usage and methods of measuring, i.e., do motorist use alternate routes when displayed on a DMS sign. Consider the use of third-party MAC address tracking.	TxDOT	Performance Measurement
Develop ideal budget and staffing requirements to implement various degrees (up-time) of ITS communications network reliability including evaluation and preventive maintenance using enterprise level network management software, scheduled equipment replacements and equipment inventory systems.	TxDOT	Performance Measurement
Conduct incident specific "debrief" meetings within two weeks of major incidents. Develop lessons learned and needs for improvement documentation.	TxDOT	Collaboration
Develop innovative ideas to spur coordination and cooperation between Dallas and Fort Worth districts which may include the use of video calls for interactive meetings.	TxDOT	Collaboration

Appendix A: Responses to AhaSlides from the Workshop

DFW Cooperation for Traffic Management (ahaslides.com/dfwtmc)

Table 1: Responses to CMF Questions (Levels 1- 4 Ranking)

Question	Level 1 (Performed)	Level 2 (Managed)	Level 3 (Integrated)	Level 4 (Optimized)
To what extent do your districts coordinate business processes across district lines?	2	3	3	1
How well do the districts coordinate website traveler information?	1	2	6	1
How well does the process work that calculates travel time across district lines (I-30, I-20, etc.)?	0	2	3	2
How well is data shared between districts so that travel time reliability can be calculated between districts?	1	3	1	0
How well do the districts handle incidents near the district lines?	0	2	5	1
How well does your permitting office/TxPROS work with the TMC with respect to notification of special loads passing through?	2	0	3	0
How prepared is your agency for Connected Vehicles?	5	1	0	0
How well does your agency measure travel time reliability?	0	2	3	1
How well does your agency measure uptime?	0	0	1	3
How well does your agency measure system build-out?	0	1	2	2
How well does your agency measure TIM clearance time?	0	1	3	0
What is the current level of cooperation between the two districts?	1	2	2	0
Does the current budget meet the needs of district-to-district coordination?	1	2	2	0
How well do the districts coordinate construction plans when a project is near or crosses district lines?	1	1	1	2
How well are the districts working together on managed lanes?	0	0	2	1
How well are your agency's virtual TMC operations working?	1	3	2	0

Table 2: Responses to Yes/No Questions

Question	Yes	No	Do not know
Do you measure website usage?	1	8	0
Would your district be interested in pursuing web-based data sharing ideas?	3	2	0
Can the TMC vary the restrictions for permitted loads?	0	4	0
Are there procedures for handing off the load from one district to another?	0	2	0
Do you have a designated person (mobility coordinator) that is identified for district-to-district matters?	1	1	2
Do you hold inter-district coordination meetings?	3	1	0
Is the contract combined for all managed lanes?	1	0	2

Below are the responses to all remaining multiple choice and open-discussion questions.

How can district coordination be improved?

- Having a shared database to see district systems. System types, year of life, etc.
- More open communication and coordination between TMC’s on issues that cross District boundaries
- Open lines of communication between districts on a regular scheduled basis
- More meetings and improved communication
- More high-level planning and discussion with the districts. TMC coordination is good.
- Coordination can be improved. Needs overhaul – big picture is the panning process. Need more high-level planning and discussion with the districts. For example, managed lanes across district line and I-30. North Central Texas Council of Governments (NCTCOG) efforts have made improvements, and addressed specific problems. TMC operators are talking, other levels need better coordination.
- NCTCOG provides leadership – very helpful.

How can website coordination and website usage be improved?

- At the TMC level it is used for reference
- Operators watch website at TMC
- Unknown. This is not measured or utilized in Dallas operations.
- Apps such as Waze and Google Maps are so simple and quick to use. I’m not sure the TxDOT traffic websites have a lot of value for the traveling public.
- I use it occasionally to look at camera locations and DMS
- Districts have little input. There is a contract Traffic Safety Division (TRF) – Austin. Not a high priority option.

What is the feasibility of using Cloud based data sharing?

- I think it is feasible but it would be a TRF call I would think.

What barriers or logistical issues could arise when implementing web-based data sharing?

- Network security would be the top concern.
- The agreements would need to be changed as they only cover center-to-center (C2C) connections. There may be security or privacy issues.

How can the travel time calculation process be improved?

- I think each district does well. Not sure where they cross or if they do.
- If the ITS networks between Dallas and Fort Worth were integrated, our TxDOT detectors would be a great backup. As it is now, INRIX is working great for us.

How can data sharing between districts regarding travel time reliability be improved?

- Metric measured for August 2020 – the Dallas-Ft. Worth area dashboard is at 87.8 for both cities. Both districts have same travel time reliability percent because both are measured as one unit.

What improvements could be made? (Bearing in mind that quick clearance is the goal.)

- Better communication protocols, just knowing who to call, what the processes should be. Getting both Districts on board with an overlapping TMS program.
- Better overall cooperation between entities.
- More extensive TIM training
- Partnership between districts
- TMC – need guidelines for responsibility assignments. Need direction on how to address issues. Need to have more time devoted to resolving, more collaboration.

How can the permitting process be improved?

- Like most problems we face, just some better communication between districts
- TMC needs some control
- Oversized load movement is a challenge at district level, and notifying the local TMC's of movement Transportation Management System (TMS) needs control. Need better communication.
- Permits come out of Austin, around 20-25 a week. Anything over 17'6" needs to have a qualified TxDOT contractor (not always reliable). Room for improvement. Between district lines, there is no communication. Time of day, day or night, it depends on the load. 95% want day and they want to move it tomorrow. It takes 14 days for approval.

How are loads/permits tracked as they pass through the district?

- GPS (0)
- Cell Phone App (0)
- Radio Control (0)
- Visual Confirmation (0)
- Way Point (0)
- Other (0)
- None (3)

What plans have been made for Connected Vehicles?

- Waiting on National Standards
- There's some talk of potential pilot projects here in the Dallas District and other parts of the State, but it's in the very early stages. No specifics yet on actual applications or standards.
- Still in testing, and waiting on standards.

How do you measure travel time reliability? At what frequency? How can this be improved?

- Monthly, Dashboard report. Live data.
- We get a monthly report published from TRF. Posted on TMS, metrics dashboard. It comes directly from Lonestar. Live data would be an improvement.

How do you measure uptime? At what frequency? How can this be improved?

- Monthly reports, and check daily

How do you measure system build-out? At what frequency? How can this be improved?

- Ft. Worth did an ITS Master plan to ID needed areas
- We are constantly looking for opportunities to increase our ITS system district-wide. We have a "wish list" of projects that is a working document. The limiting factor is funds available to build additional infrastructure.

How do you measure TIM clearance time? At what frequency? How can this be improved?

- In our monthly TMC Metrics Report
- Weekly report generated in TMC
- Clearance time is measured through TMC data collection and PD reports

Do you measure alternate route use (work zone and TIM)? How (Bluetooth MAC address matching, Other)? At what frequency?

- No.
- It's not done that I know of.
- Don't have a way to do this other than 3rd party data. TTI may be doing some studies. Would be useful.

Do you measure performance of your communication network? How is this done? At what frequency? How can this performance measure be improved?

- Network performance data is available from the software. They do review it; however, no budget is available for replacement based on early failure models. Staff is also limited for this function.
- Typical operation is run to failure.

What other items not discussed are you currently measuring?

- No responses.

How can district to district cooperation be improved?

- Communication
- More collaboration with meetings, both at high level and network side.

Describe the roadblocks or barriers you face regarding cooperation.

- The only roadblocks are making the time to do it and finding those time slots in our busy schedules.
- Lack of personal relationship

How often are these coordination meetings held? Can these be improved?

- We should start having them. Monthly or quarterly would be good.

What type of programs would provide motivation for better collaboration between districts?

- At this point, the best we can do are probably Teams meetings. Tracking of issues and follow up.
- Have the DE's schedule and facilitate the meeting, at least in the beginning.

What is the cause of retention problems identified in previous TSMO meetings?

- No responses.

Is the maintenance of the managed lanes done internally or by contract?

- Internally (0)
- Contract (4)
- Other (0)

Which district handles the contract?

- Dallas (1)
- Fort Worth (0)
- Don't Know (1)

How is the budget handled?

- No responses.

How can the managed lane coordination efforts be improved?

- No responses.

Command level incident communication issues?

- Use of After-Action-Review (AAR) is an important tool. The goal to have the meeting as soon after the incident as possible, preferably within 5 days.

What are the key challenges/barriers to the cooperation/communication/support between the districts?

- No responses.

Do you have any formalized collaboration between districts to identify issues, develop action plans, timetables, and personnel for resolution?

- As of now, we need more formalization.

Describe innovative approaches that might improve coordination and cooperation between districts?

- In the virtual world it is easy to meet and discuss. You do not have to go anywhere.

How can the current virtual TMC operations be improved?

- Worked well, Operators could not see the video board.
- Issues – technical. Operational – cannot see everything
- What worked well: had access, split sections up per operator, able to keep TMC open during pandemic
- Drawback – cannot see live video, communication between operators

Are there any highlights or things working well in your current plan that you would like to share?

- Would like to really focus on corridor wide messaging plans.

Are there any new ideas or action item recommendations?

- No responses.

Appendix B: Power Point Presentation

Click on the following link to see the Power Point Presentation.

<https://www.tsmodfw.org/wp-content/uploads/2020/10/TxDOT-DFW-TSMO-General-Traffic-Management.pdf>