

Attachment One

Integration of Performance Measures Into the Bryan/College Station MPO FY 2019 – FY 2022 Transportation Improvement Program

Introduction

Began as part of the Moving Ahead for Progress in the 21st Century (MAP-21) and continued in the Fixing America's Surface Transportation (FAST) Act, State DOT's and Metropolitan Planning Organizations (MPOs) are required to move towards a performance-based planning process with an emphasis on project selection based on specific planning factors. In the Bryan/College Station MPO 2040 Metropolitan Transportation Plan (MTP) developed under MAP-21, the MPO focused on the following factors for selection of projects in its Fiscally-Constrained Project List:

- Highway Safety: Five-year average of auto-related fatal and incapacitating crashes within the project limits
- Bicycle and Pedestrian Safety: Five-year average of bicycle and pedestrian-related fatal and incapacitating crashes within the project limits
- Congestion: Modeled Annual Hours of Delay/mile
- Mobility: Bicycle and pedestrian level-of-service

Under Map-21, States are required to set annual safety performance targets. The annual measures States set targets for include:

- Number of fatalities (The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year).
- Rate of fatalities per 100 million vehicle miles traveled (VMT) (The ratio of total number of fatalities to the number of vehicle miles traveled (VMT expressed in 100 Million VMT) in a calendar year).
- Number of serious injuries (The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year).
- Rate of serious injuries per 100 million VMT (The ratio of total number of serious injuries to the number of VMT (VMT expressed in 100 Million VMT) in a calendar year).
- Number of non-motorized fatalities and number of non-motorized serious injuries combined (The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year).

The Texas Department of Transportation established the statewide targets to support the Strategic Highway Safety Plan (SHSP) and the Highway Safety Improvement Program (HSIP). Once the State of Texas set their safety targets, MPOs within Texas were required to either adopt the Texas targets or set their own that would help achieve the statewide target. The Bryan/College Station MPO chose to adopt the state targets. These statewide targets are:

- Total Traffic Fatalities Per Calendar Year: 3,703.8
- Rate of Traffic Fatalities Per 100M VMT: 1.432
- Number of Serious Injuries: 17,565
- Rate of Serious Injuries Per 100M VMT: 6.740
- Number of Non-Motorized Fatalities and Serious Injuries: 2,150

As part of the FAST act, performance measures were incorporated for transit agencies, primarily through the Transit Asset Management (TAM) assessment and planning requirements. The Brazos Transit District (BTD) TAM plan was developed to meet that requirement. All assets owned by BTD were examined using the Federal Transit Administration (FTA) Transit Economic Requirements Model (TERM) which uses a scale of one to five to determine the quality of the asset. The scale is as follows:

- 1 = Poor The asset is critically damaged or in need of immediate repair; well past useful life.
- 2 = Marginal Defective or deteriorated in need of replacement; exceeded useful life.
- 3 = Adequate Moderately deteriorated or defective; has not exceeded useful life.
- 4 = Good Good condition, no longer new, may be slightly defective/deteriorated but is functional.
- 5 = Excellent No visible defects, new or near new, may still be under warranty if applicable.

An asset is deemed to be in good repair if it has a rating of 3, 4, or 5 on this scale. Likewise, a facility is deemed to not be in good repair if it has a rating of 1 or 2. Using this scale, BTD examined revenue vehicles, non-revenue vehicles and facilities. Based on the rating, BTD developed investment priorities for vehicles and facilities and these are:

Revenue Vehicles

1. Replacement of the Bryan/College Station fixed route buses, currently 17 medium duty cutaways. The plan is to replace four of these buses by 2019, and two each year thereafter unless additional funding is received.
2. Replacement of 14 LD cutaways that are 2007 and 2009 models.
3. Replace 2 mini-vans that are 2010 models.

Non-Revenue Vehicles

1. Replace nine maintenance/support trucks that are all 2010 models.
2. Replace six vans that are support vehicles and are all 2010 models.

Facilities

1. Rehabilitation of the Livingston Facility
2. Rehabilitation of the Transfer Point in Bryan

While not listed in the investment priorities, BTD noted that under facility conditions that 33% of passenger and parking facilities are under 3 on the TERM scale and 20% of administrative and maintenance facilities are under 3 on the TERM scale. The TAM Plan was accepted by the MPO Policy Board on October 3, 2018.

Upon adoption of the FAST Act, a direct correlation between safety targets and TAM plans needed to be established through project selection as reflected in the Transportation Improvement Programs (TIPs). By rule, TIPs amended or updated on or after 5/27/2018 must meet the Performance-Based Planning and Programming (PBPP) planning requirements [81 FR 34050] for the safety performance measures. TIPs amended or updated on or after 10/1/2018 must meet the PBPP planning requirements for FTA's Transit Asset Management Final Rule. Since the MPO is making amendments to the FY 2019- FY 2022 TIP, the entire TIP must be reviewed and a narrative developed showing how projects included in the Bryan/College Station MPO TIP help achieve safety and TAM plan requirements.

The FY 2019 – FY 2022 Bryan College Station Transportation Improvement Program

Because the 2040 Metropolitan Transportation Plan included selection criteria based on safety, most of the highway projects included in the TIP have significant impact on improving safety and thus help work towards the safety targets. These projects include:

- FM 2818 between FM 60 (University Drive) and FM 2154 (Wellborn Road). The project will develop a super street arterial with “Michigan lefts” that will significantly reduce conflict points and reduce delay at intersections. The project also incorporates bicycle and pedestrian facilities where none existed before. These improvements were added to increase bicycle and pedestrian safety.
- Coulter Drive between William Joel Parkway (FM 158) and South College Avenue. The project will install six-foot sidewalks and bicycle lanes to improve safety along the corridor.
- State Highway 6 (Bypass) from FM 158 to Old Reliance Road. The project constructs a 12 foot shared use path along the Northbound frontage road in front of a middle school to allow bicyclists and pedestrians safe access to adjoining streets.
- FM 158 (William J. Bryan Parkway) between Business Route 6 and State Highway 6. This safety project removes continuous center turn lanes and replaces them with raised medians where applicable, incorporates deceleration lanes at accident-prone intersections and adds a shared-use path.
- State Highway 6 between State Highway 21 and Business Route 6 South. Traffic volumes of 93,000 vehicles per day on a four-lane section result in numerous crashes along this corridor. The project will add one lane in each direction and include additional operational improvements including interchange u-turn lanes, and frontage road geometric improvements.
- Business Route 6 between State Highway 21 to FM 158. The project replaces continuous center turn lanes with raised medians and constructs sidewalks.
- Business Route 6 between FM 158 to FM 60. The project replaces continuous center turn lanes with raised medians and constructs sidewalks.
- A total of 12 bridge replacement and approach railing projects on State Highway 6 to modernize facilities.
- Replacement of State Highway 30 bridge over the Navasota River to modernize the facility.
- US 190 at FM 2038. Installation of intersection flashing beacon.

According to the Brazos Transit District (BTD) TAM plan all 17 medium duty cutaway buses used in the Bryan/College Station Urbanized area need replacement as they fail to meet their useful life benchmark. Projects included in the FY 2019 – FY 2022 Transportation Improvement Program that address Transit Asset Management requirements include:

- Bus Replacements in FY 2019 totaling \$1,020,000 to remove obsolete transit buses from the BTD fleet.
- Bus Replacements in FY 2020 totaling \$1,050,600 to retire obsolete transit buses from the BTD fleet.
- Bus replacements in FY 2021 totaling \$1,092,624 to remove buses past their useful life in the BTD fleet.
- Bus replacements in FY 2022 totaling \$1,147,254 to retire buses past their useful life in the BTD fleet.

FY 2019 – FY 2022 Transportation Improvement Program Amendment One

In October of 2018 the Bryan College Station MPO Policy Board amended the FY 2019 – FY 2022 TIP to include two projects that address the Brazos Transit District Transit Asset Management Plan:

- Reprogramming of unused FY 2017 5307 funds to replace obsolete transit vehicles in the BTD fleet.
- A lighting upgrade to the BTD owned downtown Bryan parking garage to improve conditions at the facility.

FY 2019 – FY 2022 Transportation Improvement Program Amendment Two

In November of 2018 the Bryan/College Station MPO Policy Board amended the FY 2019 – FY 2022 TIP to address the following safety project:

- State Highway 308 from Hensel Park to FM 60 (University Drive). The project will install a shared use path on a TxDOT roadway with heavy foot traffic where no facilities existed before.

The Policy Board also amended the TIP to address the following Transit Asset Management project:

- Brazos Transit District Coordination Complex Center Construction. The \$3,400,000 project will upgrade BTD administrative, operations and maintenance facilities in their Brazos County facility.