

The Central Texas Regional Mobility Authority (Mobility Authority) and the Texas Department of Transportation (TxDOT) are working with local partners on the MoPac South Environmental Study to determine the best alternative for providing reliability and safety on approximately eight miles of MoPac from Cesar Chavez Street to Slaughter Lane. When Express Lanes were identified as the Recommended Build Alternative, the Mobility Authority commissioned a local dynamic traffic assignment (DTA) study by the University of Texas at Austin Center for Transportation Research to evaluate how different operational configurations could impact travel times within the downtown area.

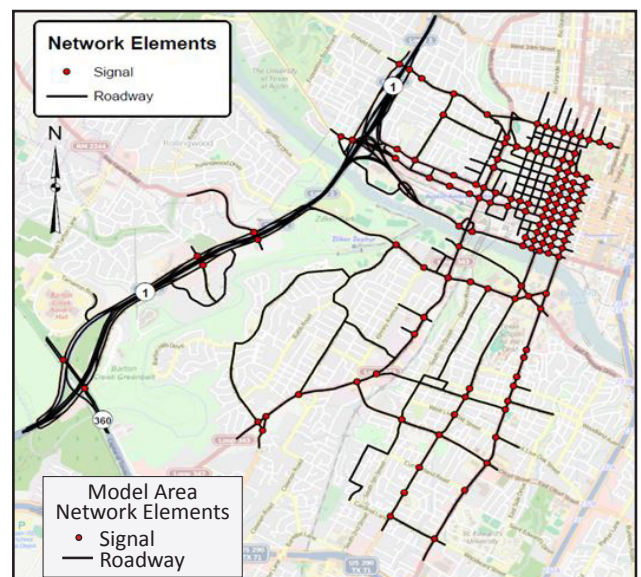
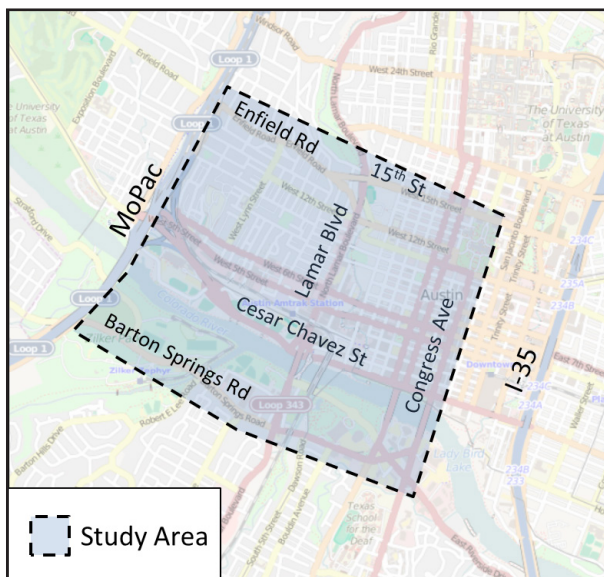
What is a Dynamic Traffic Assignment (DTA)?

DTAs are traffic models that examine how drivers modify their travel patterns to take advantage of the least congested routes when changes are made in a transportation network. The DTA for MoPac South was conducted for the year 2020 (the earliest possible date that the project could open to traffic).

The model looks at two areas:

Downtown study area: Defined by MoPac to the west, Enfield Rd./15th St. to the north, Congress Ave. to the east, and Barton Springs Rd. to the south. Street-level travel time evaluations were conducted on the major streets in this zone.

Model area: The limits of the model area extend beyond the boundaries of the downtown study area in order to properly analyze how drivers would choose their routes if Express Lanes were available on south MoPac. The model area looks at all the major north/south arteries from north of SH 71 to Enfield Rd./15th St. and all major east/west corridors from MoPac to Congress Ave. Along MoPac, the model area extends just south of Loop 360 to include the entrances and exits between the proposed Express Lanes and the general-purpose lanes south of Cesar Chavez St.



What Express Lane Configurations Were Modeled?

- **1 Express Lane + downtown DC:** Includes one Express Lane in each direction, and a one-lane, elevated direct connect ramp in each direction, from Cesar Chavez St.
- **1 Express Lane without downtown DC:** Includes one Express Lane in each direction. Traffic with a downtown destination will exit the Express Lanes south of Barton Skyway into the left-most general purpose lane and weave across three lanes to access the existing Cesar Chavez St. exit. Leaving downtown, southbound MoPac drivers will enter the general purpose lanes using the existing Lake Austin Blvd. entrance ramp and weave across three lanes to access the Express Lane south of Barton Skyway.
- **2 Express Lanes + downtown DC:** Includes two Express Lanes in each direction, and a one-lane, elevated direct connect ramp in each direction, from Cesar Chavez St.
- **2 Express Lanes without downtown DC:** Includes two Express Lanes in each direction. Access to and from the downtown area will function similarly to the 1 Express Lane without downtown DC configuration.
- **No Build (do nothing) Alternative:** Analyzed as a baseline for comparison.

Two additional configurations are also being considered as part of the study, but were not specifically analyzed by the DTA:

2 Express Lanes + Elevated Ramps near Barton Skyway and Bee Cave Road: Includes two Express Lanes in each direction and adds elevated ramps near Barton Skyway. Drivers with a downtown destination would exit the Express Lanes into the right-most general purpose lane south of Lady Bird Lake. Leaving downtown, southbound MoPac drivers will enter the right-most general purpose lane to access an Express Lane ramp near Barton Skyway. This operational configuration was not directly included in the DTA analysis, but would function similarly within the study area to the 2 Express Lanes without downtown DC configuration that was modeled.

City of Austin Proposal: The project team also refined an operational configuration presented by the City of Austin. Because work on this configuration was still ongoing when the DTA analysis was conducted, it was not modeled. However, it would provide access to and from downtown that does not require drivers to weave through MoPac general purpose lanes.

SUMMARY OF RESULTS

The DTA shows that the addition of Express Lanes on south MoPac would not adversely affect congestion on Austin's downtown street grid as a whole. This is true for any of the operational configurations evaluated. All configurations either improved or had negligible impacts to travel times within the downtown network.

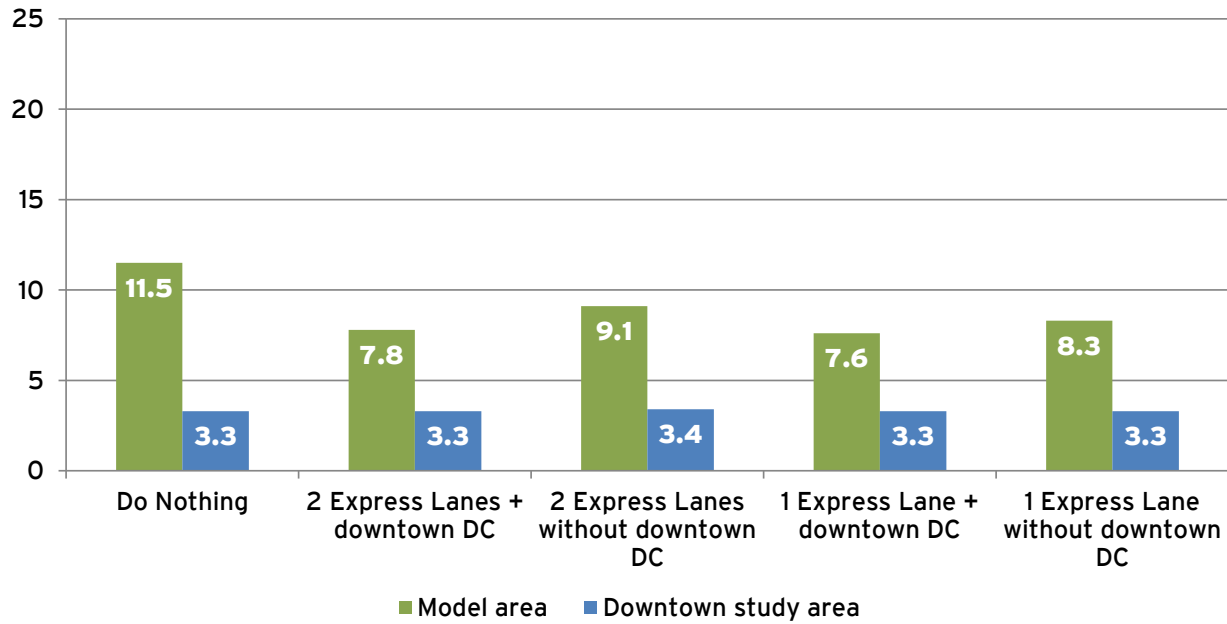
AM peak period (6 - 9 a.m.):

- When compared to the No Build Alternative, drivers would save at least two minutes in the model area.
- Travel times on eastbound Cesar Chavez St., eastbound 5th St., northbound Lamar Blvd. and northbound 1st St. /Lavaca St. would remain within one minute of the No Build Alternative, regardless of the Express Lane configuration.

PM peak period (3:30 - 6:30 p.m.):

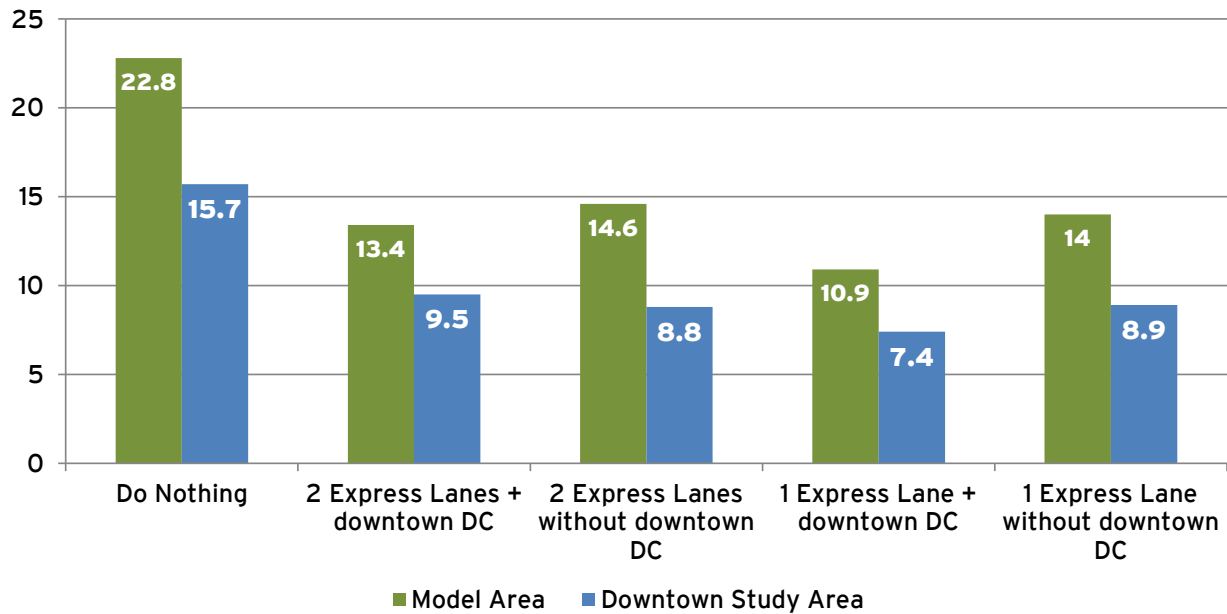
- When compared to the No Build Alternative, drivers would save at least eight minutes in the model area.
- All Express Lane configurations would provide better travel times on westbound Cesar Chavez St., westbound 6th St., southbound Lamar Blvd. and southbound 1st St./Guadalupe St. as compared to the No Build Alternative.

2020 AVERAGE MORNING PEAK PERIOD TRAVEL TIMES (IN MINUTES)



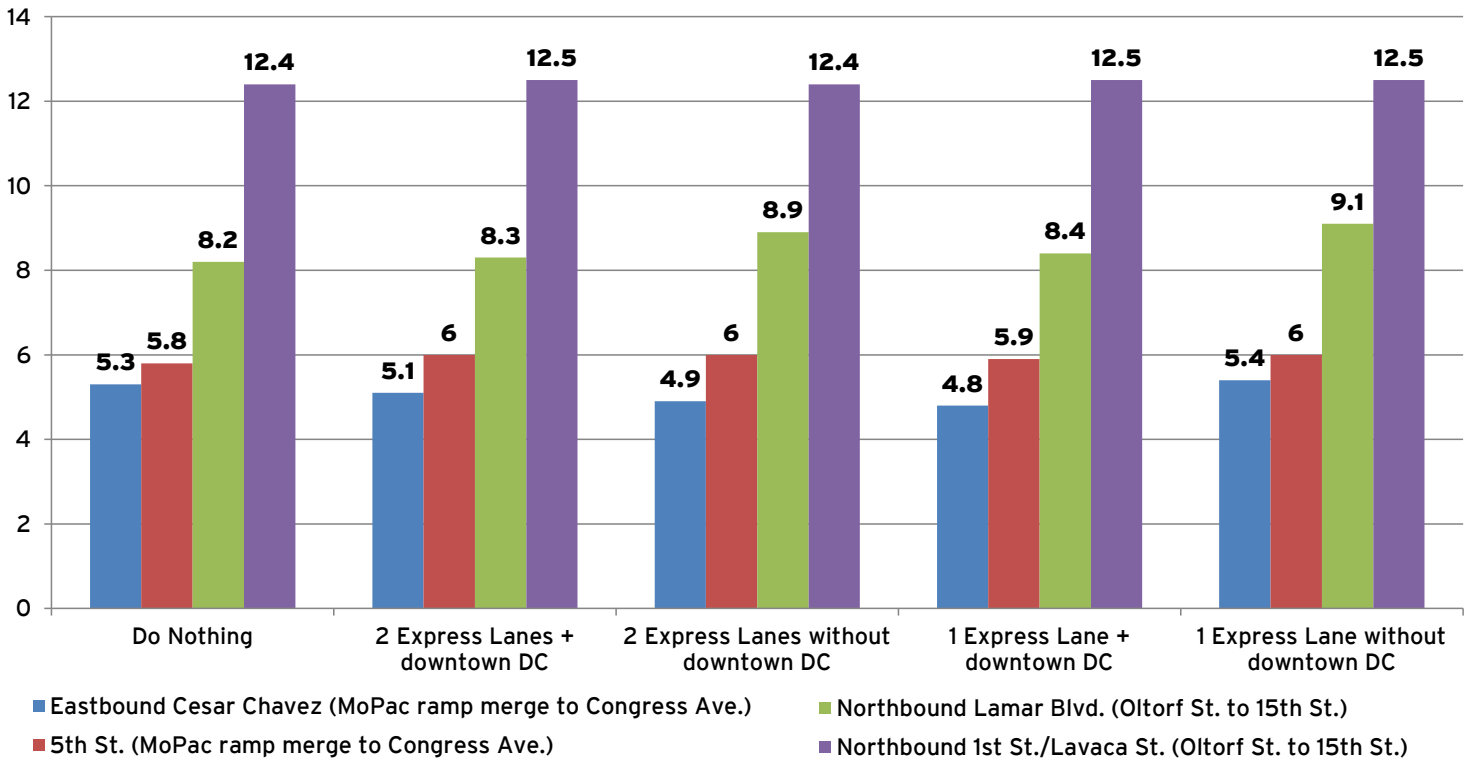
- **Model area:** Drivers would save at least two minutes for all of the modeled configurations as compared to the Do Nothing scenario.
- **Downtown study area:** All modeled configurations present average travel times within six seconds of the Do Nothing scenario.

2020 AVERAGE AFTERNOON PEAK PERIOD TRAVEL TIMES (IN MINUTES)



- **Model area:** Drivers would save at least eight minutes for all of the modeled configurations as compared to the Do Nothing scenario.
- **Downtown study area:** Drivers would save at least six minutes for all of the modeled configurations as compared to the Do Nothing scenario.

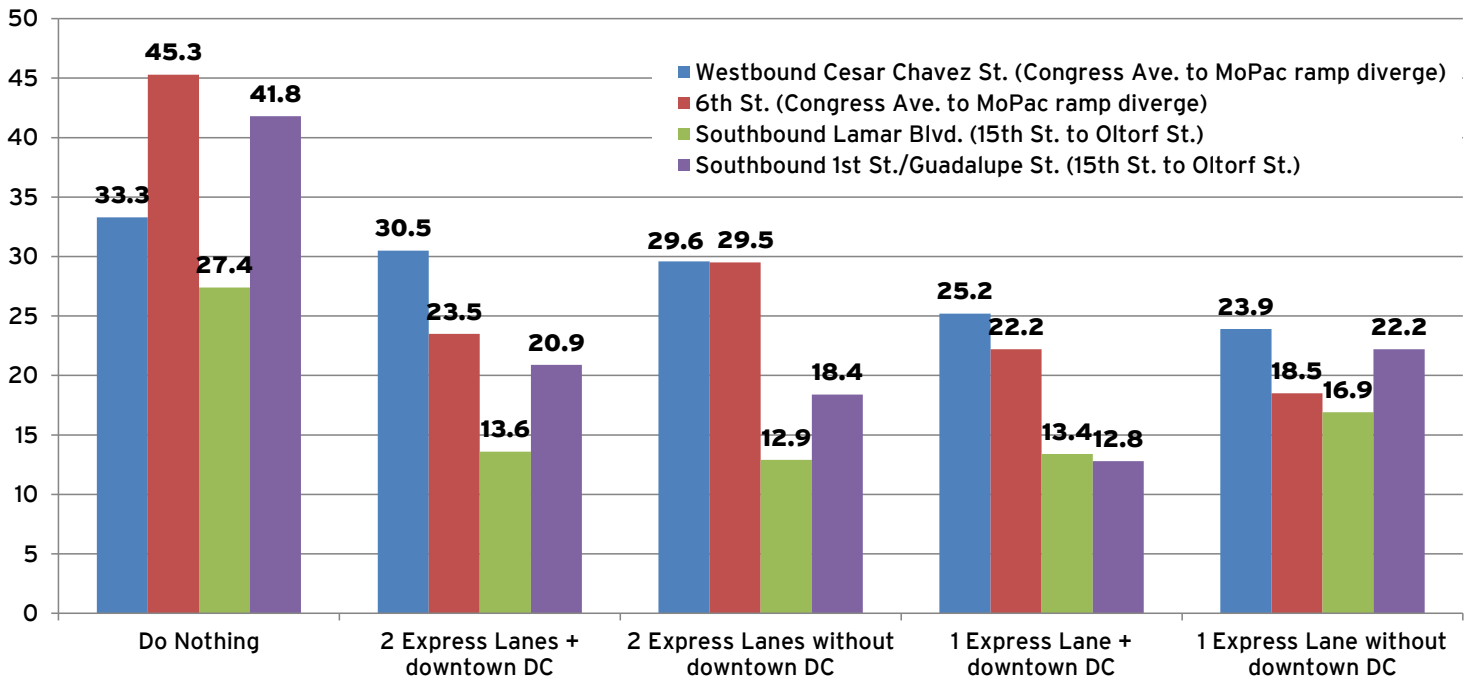
2020 MORNING PEAK PERIOD TRAVEL TIMES (IN MINUTES)



Results: Modeled configurations present travel times on all routes within one minute of the Do Nothing scenario.

- Eastbound Cesar Chavez: **Within 30 seconds** of the Do Nothing scenario.
- 5th St.: **Within 12 seconds** of the Do Nothing scenario.
- Northbound Lamar Blvd.: **Within 54 seconds** of the Do Nothing scenario.
- Northbound 1st St./Lavaca St.: **Within six seconds** of the Do Nothing scenario.

2020 AFTERNOON PEAK PERIOD TRAVEL TIMES (IN MINUTES)



Results: All modeled configurations present lower peak period travel times when compared to the Do Nothing scenario.

- Westbound Cesar Chavez: As much as **9.4 minutes saved** over the Do Nothing scenario.
- 6th St.: As much as **26.8 minutes saved** over the Do Nothing scenario.
- Southbound Lamar Blvd.: As much as **14.5 minutes saved** over the Do Nothing scenario.
- Southbound 1st St./Guadalupe St.: As much as **29 minutes saved** over the Do Nothing scenario.