

Background

When it comes to transportation and mobility in Tennessee, we are at a critical juncture. We are fortunate to live in a state with so much going for us, a direct result of our sound economic policies, high quality of life, and ranking as one of the lowest-taxed states in the country. This blueprint makes Tennessee one of the most popular states for job creation, experiencing a net gain of 137,100 jobs year-over-year¹ (September 2021–September 2022), and population increases of nearly 9%² in the past decade.

While this yields economic opportunity, it also presents challenges in our ability to move people, goods, and services more seamlessly across our state. Our position as an artery of commerce necessitates our focus to ensure freight, visitors (who spent \$24 billion³ in Tennessee in fiscal year 2021), and citizens traveling our state get where they need to be on time. Tennessee’s growth has far exceeded any projection developed during the 2017 IMPROVE Act push, and the Tennessee Department of Transportation (TDOT) is falling behind on delivering the infrastructure solutions needed to support the volume of population moving to Tennessee.

Further, as employee experience becomes a greater factor in business success, investment in Tennessee will increasingly rely on employers ensuring staff balance their time growing businesses and otherwise enjoying their lives – not sitting in traffic.

The cost of doing nothing isn’t zero. If solutions to Tennessee’s transportation challenges are not implemented, the state will find itself in a significantly disadvantaged position. While solutions must be found, the Department is committed to **not**:

- Raising the gas tax
- Issuing road debt
- Spending a disproportionate amount of highway funds in highly congested urban areas at the detriment of spending in rural communities
- Reducing the amount spent on road and bridge maintenance
- Proposing toll roads

¹ [Transparent Tennessee: OpenECD | TNECD Performance Metrics | Tennessee Employment and Job Growth](#)

² <https://www.census.gov/library/stories/state-by-state/tennessee-population-change-between-census-decade.html>

³ <https://industry.tnvacation.com/industry/research/interactive>

Knowing that these are off the table, the Governor instructed Commissioner Eley to see what other states are doing. Moving forward, the needs are clear:

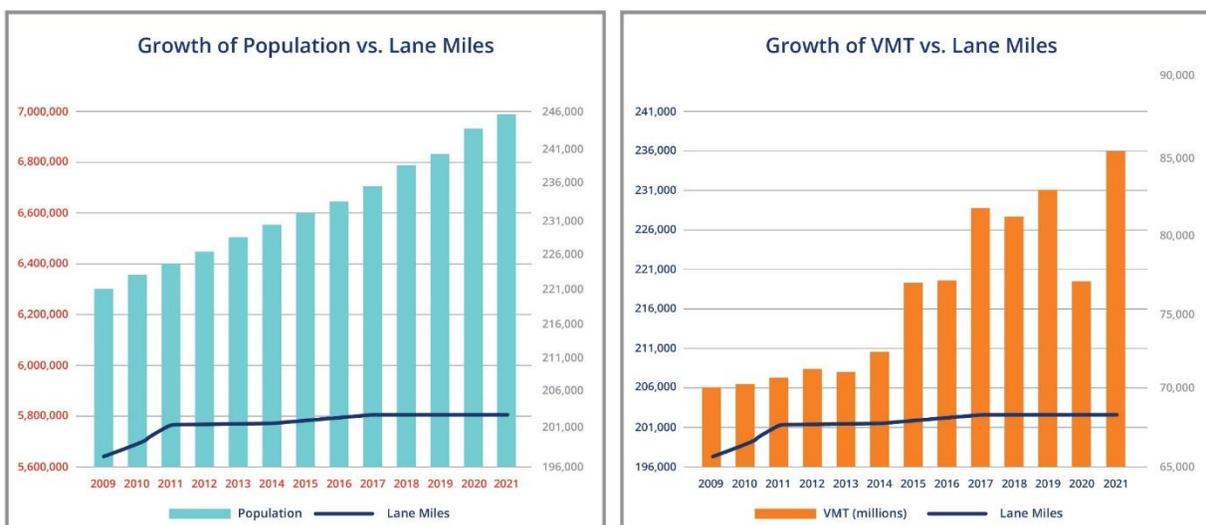
- Modern approaches to addressing urban congestion while preserving funds to address rural transportation challenges,
- An expanded set of project delivery tools, and
- A new paradigm for running a high-performance department of transportation.

Addressing these needs will bolster Tennessee’s standing as a place of great opportunity for employers and families.

Challenges and Solutions

Challenge: Congestion

Tennessee’s growth is far outpacing roadway capacity investments. The figures below highlight this disparity.



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The natural result of these discrepancies is increased traffic congestion, which is becoming more problematic throughout Tennessee – in both urban and rural areas. In fact, the cost of congestion in the 11 urban areas of Tennessee per commuter is \$670 annually; in the larger four urban areas is \$989 annually, and the average cost

⁴ [Tennessee Department of Transportation and University of Tennessee. The Boyd Center for Business and Economic Research.](#)



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of congestion in the Nashville urban area is \$1,465 per commuter annually.⁵ Tennessee also lies at the crossroads of some of the most significant freight corridors in the country, which are forecasted to grow significantly in the future, further underscoring the need for roadway improvements to address congestion.

The backbone of TDOT's revenue stream is motor fuel taxes (charged per gallon of gasoline), which is being eroded through a confluence of factors. Increasing fuel economy of the vehicle fleet, exacerbated by the emergence of hybrid and purely electric vehicles, is putting downward pressure on fuel tax projections. In fact, TDOT forecasts that motor fuel tax collections will remain static⁶ over the next 10 years despite increasing vehicle-miles traveled. Additionally, since Tennessee's motor fuel taxes are not indexed for inflation, TDOT's purchasing power is further diminished by rising construction costs and inflation.

Whereas revenues for transportation are expected to level off, the transportation needs of the state are growing exponentially. TDOT estimates \$26 billion⁷ is needed to address both urban and rural congestion in Tennessee. Of that total, only \$3.6 billion is already contemplated as part of the 2017 IMPROVE Act projects list. Of TDOT's \$1.2 billion budget for annual construction and maintenance, only \$500 million per year is available for the construction of projects that would move the needle on congestion. This widening gap between revenues and needs puts Tennessee's continued economic development and quality of life at risk.

Solution: Congestion

A review of other peer states that have addressed similar issues reveals common themes and helpful findings from states such as Texas, Florida, Georgia, North Carolina, and Virginia. These states have legislative vehicles and mobility solutions to address their issues. Acknowledging Tennessee's lack of revenue and necessity to build, there is a clear path forward to help mitigate this problem.

Public-Private Partnerships (P3s) allow private investment in new roadway infrastructure. Tennessee is currently the only state in the southeastern United States that does not allow such partnerships for the development of roads and bridges. Under these arrangements, a private-sector partner enters into an agreement with the state department of transportation to design, build, finance, operate and maintain Choice Lanes. Choice Lanes allow motorists to have an option

⁵ [Texas A&M Transportation Institute \(TTI\) Urban Mobility Report \(UMR\)](#)

⁶ Tennessee Department of Transportation's state motor fuel collections forecast

⁷ Tennessee Department of Transportation. (2022) *Congestion Action Plans*
<https://www.tn.gov/tdot/government/g/planning-studies/congestion-study.html>

on congested urban highways to provide reliable trip times – these are not the same as toll roads. Georgia has seen rush hour traffic reduced by over an hour in both the morning and evening commutes and buses have seen a 10% increase in on-time performance. Additionally, the benefit reaches beyond those choosing to use a Choice Lane. In fact, Georgia’s general purpose lanes are up to 20 mph faster than they were before the express lanes opened and travel speeds are 20% faster in the express lanes as compared to the general purpose lanes (speeds increased from an average of 30 mph to 50 mph).⁸

This improvement in performance is prevalent across our peer states, demonstrating a powerful approach to addressing urban-area congestion and preserving critical funds to address congestion-related challenges in rural areas - like widening the interstates to three lanes.

Under the P3 approach, Tennesseans in urban areas receive the benefit of additional road capacity; industry receives the anticipated benefit of additional roadway construction opportunities; and rural communities reap the benefits of additional resources available to address their challenges rather than diverting funding from rural areas to accommodate urban growth.

Experience across the country bears the following results:

- In P3 delivery, projects such as Choice Lanes see 70% of the work accomplished by local contractors.⁹ We believe that means more work for Tennessee contractors over and above the annual \$1.2 billion of annual construction and maintenance.
- Texas has seen a 60-75% reduction in congestion and an average speed increase of 10-15%¹⁰ while simultaneously seeing a 10% increase of cars on the road.
- In the Dallas/Ft. Worth Metroplex, the cost of congestion has been reduced by \$10 billion due to the implementation of Choice Lanes.¹¹

Challenge: Delivery

Another challenge confronting TDOT is the time it takes to deliver projects. Currently, on average it takes 15 years to deliver a project from development

⁸ Georgia Department of Transportation

⁹ National scan of P3 revenue risk highway projects; Texas Department of Transportation

¹⁰ Texas Department of Transportation’s NTETEXPRESS and LBJTEXPRESS. *Key Operation Facts & Benefits.*

¹¹ Texas Department of Transportation’s NTETEXPRESS and LBJTEXPRESS. *Key Operation Facts & Benefits.*

through construction, and projects are costing 40%¹² more than what was budgeted due in part to the protracted development phase timeline. In this case, for TDOT, time really is money, and the Department loses out on opportunities to leverage limited funds to deliver more projects when the Department's purchasing power is eroded by lengthy project development schedules.

Alternative delivery methods like Design-Build (DB), Construction Manager/General Contractor (CM/GC) and Progressive Design-Build (PDB) have proven across the country to accelerate delivery timelines, but TDOT is currently limited by statute in the number of projects that can be delivered via these methods and are prevented from using PDB altogether.¹³ While the traditional delivery method acts like an assembly line, with each step in the design and construction process segmented and sequenced, alternative delivery methods resemble a race track pitstop, with design and construction activities streamlined and synthesized allowing the Department to deliver innovative projects at a more rapid pace.

Further, as costs continue to escalate, the proportion of TDOT's budget that must be dedicated to high-priority state of good repair projects is projected to increase, leaving a shrinking budget to address needed new construction projects. Rising costs further jeopardize TDOT's ability to leverage the full federal funding available to Tennessee due to an inability to fund the required state-level match. Without matching state dollars, the Department runs the risk of losing out on federal funding for new construction projects, thus emphasizing the role of rising maintenance costs, which add to the Department's need to deliver projects in a more efficient manner.

Solution: Delivery

TDOT has a goal of reducing project delivery to five years. Unlocking the full range of alternative delivery tools will go a long way to driving success on this front, ensuring the Department has the right tools for the right projects. Presently, Tennessee's transportation needs are greater than the state's ability to fund projects; however, adding PDB and expanding TDOT's existing alternative delivery tools will put TDOT in a strong position to optimize the delivery of increasingly complex infrastructure solutions. Across the country, alternative delivery methods result in 30-50% faster delivery and 10% cost savings compared to traditional delivery methods.¹⁴

TDOT's Proven Successes:

¹² Tennessee Department of Transportation. *Alternative Delivery Comparisons*.

¹³ Tenn. Code Ann. § 54-1-119, Tenn. Code Ann. § 54-1-501

¹⁴ Design-Build Institute of America

- To date, TDOT's alternative delivery program has demonstrated \$22 million in cost savings and almost 70% faster delivery compared to projects delivered traditionally.¹⁵
- When comparing cost and duration per lane mile, alternative delivery is both cheaper (\$3.9 million difference) and faster (158 days) than traditional delivery.¹⁶

Challenge: Workforce

The final challenge compounding problems is related to workforce. TDOT is losing employees at a fast rate, primarily due to their below-market level salaries. TDOT needs an organizational structure that supports teamwork and improves efficiencies.

Solution: Workforce

While TDOT is seeking legislative solutions to help address the state's growing transportation challenges, it is important to note that the Department is doing its part to reorganize its operations, streamline the organization and move toward a more efficient project delivery model to get projects on the street faster. EPIC, or Empowering People, Influencing Culture, is TDOT's initiative to build an organization that will provide more opportunities for TDOT employees to thrive.

EPIC will create a workplace where everyone has a feeling of accomplishment through knowing how they contribute to TDOT's success. The initiative will ensure competitive, market-rate wages and benefits by eliminating a minimum of 500 vacant positions and using those dollars to increase salaries.

Additionally, TDOT is internally moving away from the assembly line, siloed approach and moving towards a pit stop, team-based approach that allows faster and more efficient delivery of projects through a new initiative called Integrated Program Delivery (IPD), which will allow the Department to place the right people in the right roles to do the right job.

Next Steps

The transition into the IPD initiative and the launch of EPIC are transforming TDOT to integrate project teams, systems and business structures and improve the way the Department delivers projects.

¹⁵ Tennessee Department of Transportation. *Alternative Delivery Comparisons*.

¹⁶ Tennessee Department of Transportation. *Alternative Delivery Comparisons*.



TDOT will be able to make decisions on the best delivery method (i.e., alternative or traditional delivery) to drive innovation, reduce costs and provide long-awaited improvements to the people of Tennessee. P3s have the potential to bring billions of dollars of private investment to the table to address Tennessee's urban congestion problem and allow TDOT to have a higher focus on more rural areas of the state.

To ensure we can accommodate the opportunity coming to Tennessee, the governor will propose legislation this legislative session to ensure TDOT has the necessary resources to meet these challenges and prepare for increased economic advantages to ensure Tennesseans have a safe, reliable, modernized infrastructure system for generations to come.