

Regular Meeting of the Board of Directors



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

March 31, 2021

Welcome and opportunity for public comment



1

Bobby Jenkins
Chairman

Welcome newly appointed Board Member and administer oath of office

2

Bobby Jenkins
Chairman

290 E Phase III Project and 183 South Project virtual grand opening ceremony

3

Bobby Jenkins
Chairman

Convene the Audit Committee Meeting

- A. Audit Committee meeting called to order by Committee Chairman Singleton
- B. Authorize the engagement of a firm to provide independent auditing services
- C. Adjourn Audit Committee

4A

David Singleton

Treasurer

Convene the Audit Committee Meeting

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4B

David Singleton, Treasurer
Mary Temple, Controller

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

March 31, 2021 Audit Committee Meeting
Audit for the Year Ending June 30, 2021

Presented by RSM US LLP

Agenda

- » Scope of Services
- » Audit Overview
 - Financial Statement Audit Scope
 - Federal and State Awards Audit Scope
- » Responsibilities of Audit Committee
- » Responsibilities of Management
- » Responsibilities of Audit Firm
- » Planned Audit Timeline
- » Engagement Team

Scope of Services

- » We are engaged by CTRMA to
 - Audit the financial statement prepared by management
 - Express an opinion regarding the presentation of management's financial statements prepared in conformity with accounting principles generally accepted in the USA
 - Perform the compliance audits of Federal and State Awards and issue reports on internal controls over financial reporting and tests of compliance for major programs for each of these audits

Audit Overview

» Financial Statement Audit Scope

- » CTRMA Financial Statements are prepared by management
- » Our audit includes
 - Examining evidence supporting amounts and disclosures on a test basis
 - An assessment of internal control structure for purposes of auditing the amounts and disclosures in the financial statements, but not for providing an opinion on internal control
 - An assessment of accounting principles, significant estimates made by management, and disclosures to the financial statements
 - Significant deficiencies in controls or accounting processes will be reported to Audit Committee and management

Audit Overview - continued

» Federal and State Awards Audit Scope

- » Federal and State Compliance Audits: required since there is \$750,000 or more in expenditures from each source
- » Compliance Audit Scope: compliance with specified requirements and internal controls over compliance
- » There will be separate reports for these audits
 - Auditor's report on compliance with specified requirements for each major program
 - Auditor's report on internal control over compliance with laws, regulations, contracts and grant agreements, and other matters for each major program

Responsibilities of the Audit Committee

» Audit Committee's Responsibilities

- » Oversight of financial reporting process
- » Setting an appropriate organizational “tone at the top” for creating a culture of high ethical standards surrounding financial reporting and compliance
- » Communication to auditors of audit questions or concerns
- » Communication to auditors of suspected fraud
- » Communication to auditors of concerns about management integrity
- » Communication to auditors of unusual transactions or large transactions with related parties

Responsibilities of Management

» Management's Responsibilities

- » Preparing and fairly presenting the financial statements and schedule of expenditures of federal/state awards in conformity with accounting principles generally accepted in the USA
- » Establishing and maintaining effective internal controls
- » Adopting and following industry standard accounting policies
- » Identifying and confirming that CTRMA complies with laws and regulations related to its activities
- » Identification and communication of suspected fraud
- » Identification and evaluation of subsequent events
- » Identification and communication of unusual transactions or large transactions with related parties

Responsibilities of the Audit Firm

» Auditor's Responsibilities

- Conduct the audit in conformity with U.S. Generally Accepted Auditing Standards
- Conduct the audit in conformity with Government Auditing Standards (federal and state funding requirement)
- Perform audit procedures to obtain evidence about the amounts and disclosures in the financial statements
- Evaluate the appropriateness of accounting policies
- Evaluate the reasonableness of significant estimates
- Consider internal control relevant to financial statement preparation but not for the purpose of reporting on the internal controls

Planned Audit Timeline

- » April/May 2021 – CTRMA and RSM planning meeting and scheduling
- » May/June 2021 – RSM interim audit procedures
- » August/September 2021 – RSM year end audit procedures
- » September/October 2021 – Presentation of results and acceptance of financial and compliance audit reports

Engagement Team

» Joel Perez, Partner

- » Phone number: 512-476-0717

- » Email Address:

- » Physical Address: 811 Barton Springs Road, Suite 500, Austin, Texas 78704

» Tino Robledo, Senior Audit Manager

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- B. Authorize the engagement of a firm to provide independent auditing services
- C. Adjourn Audit Committee

4C

David Singleton
Treasurer

Consent Agenda

5. Approve the minutes from the February 8, 2021 Special Called Board Meeting and the February 28, 2021 Regular Board Meeting
6. Prohibit the operation of certain vehicles on Mobility Authority toll facilities pursuant to the Habitual Violator Program

5-6

Bobby Jenkins
Chairman

Regular Items

Bobby Jenkins
Chairman

Discuss and consider election of Secretary

7

Bobby Jenkins
Chairman

Accept the financial statements through February 2021 and consider the monthly budget update

8

William Chapman - Interim Executive Director and CFO
Robert D. Goode - Deputy Executive Director
Mary Temple - Controller



**Most recent figures
to be presented at Board
Meeting**

FY 2021 February Budget Report

Robert D. Goode

Deputy Executive Director



Projected Revenue vs. Actual thru February

Projected Revenue vs. Actual				
REVENUES	Adopted Budget	Projected Revenue thru Feb	Actual Revenue thru Feb	Delta (less than projected)
Tag Revenue	\$87,282,802	\$52,531,000	\$47,533,178	(\$4,997,822)
Video Tolls	\$23,301,118	\$14,852,000	\$13,914,342	(\$937,658)
Fee Revenue	<u>\$8,342,080</u>	<u>\$6,802,000</u>	<u>\$6,521,265</u>	<u>(\$280,735)</u>
Total Operating Revenue	\$118,926,000	\$74,185,000	\$67,988,785	(\$6,196,215)
Interest Income	\$2,500,000	\$333,000	\$343,152	\$10,152
Grant Revenue	\$3,000,000	\$824,600	\$824,587	(\$13)
Misc. Revenue	<u>\$3,000</u>	<u>\$71,000</u>	<u>\$78,560</u>	<u>\$7,560</u>
Total Other Revenue	\$5,503,000	\$1,228,600	\$1,246,299	\$17,699
TOTAL REVENUE	\$124,429,000	\$75,416,600	\$69,235,084	(\$6,181,516)



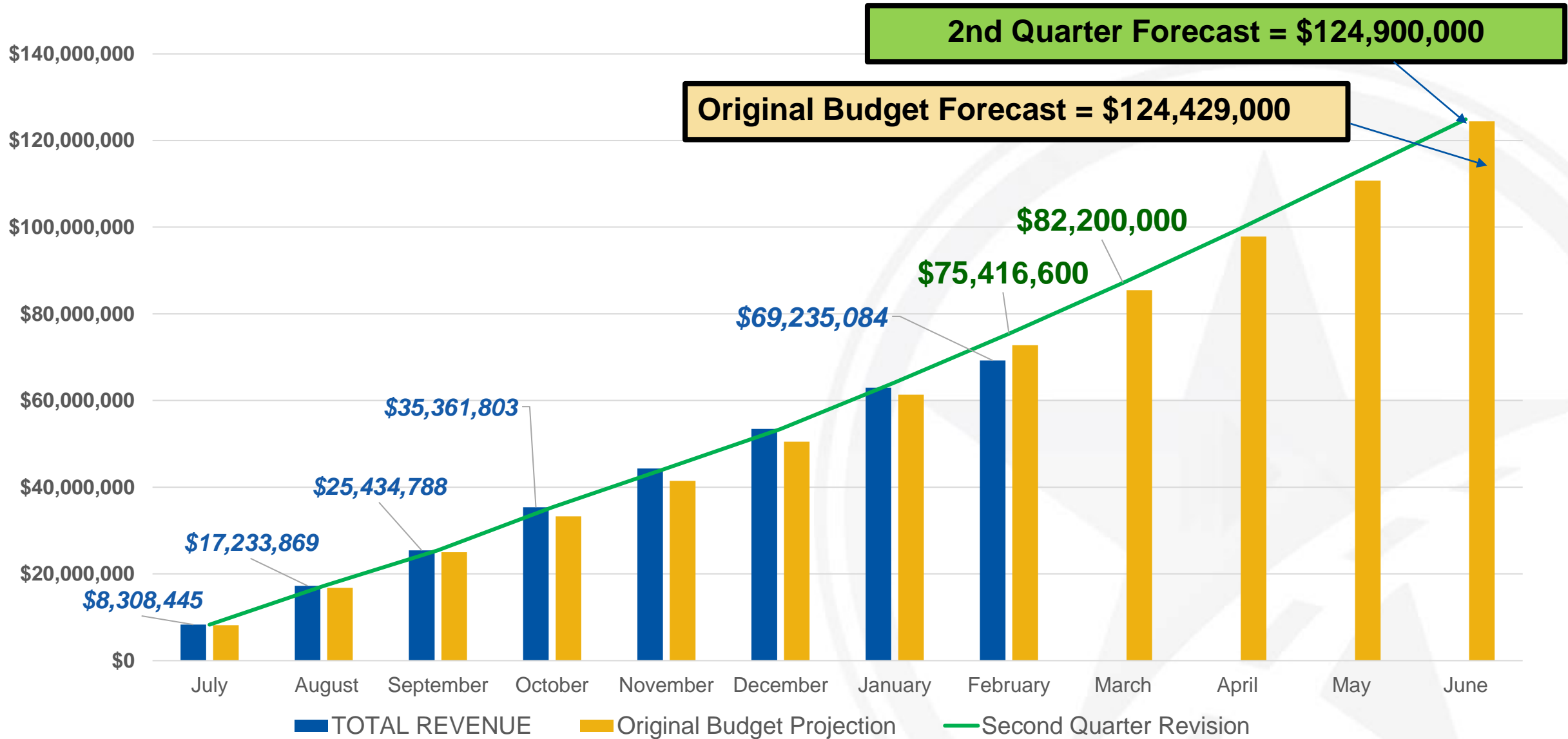
Projected Expenses vs. Actual thru January

Projected Expenses vs. Actual

EXPENSES	Adopted Budget	Projected Expenses <u>thru Feb</u>	<i>Actual Expenses thru Feb</i>	Delta (more than projected)
Salaries/Benefits	\$6,572,687	\$4,042,000	\$4,011,501	\$30,499
Administrative	\$3,450,200	\$2,255,000	\$1,855,332	\$399,668
Operations/ Maintenance	\$25,376,689	\$16,474,000	\$13,320,011	\$3,153,989
Other	\$51,721,420	\$34,971,000	\$32,471,267	\$2,429,733
Non-Operating	<u>\$44,206,626</u>	<u>\$29,609,000</u>	<u>\$29,761,851</u>	<u>(\$152,851)</u>
TOTAL EXPENSES	\$131,327,621	\$87,351,000	\$81,419,962	\$5,931,038

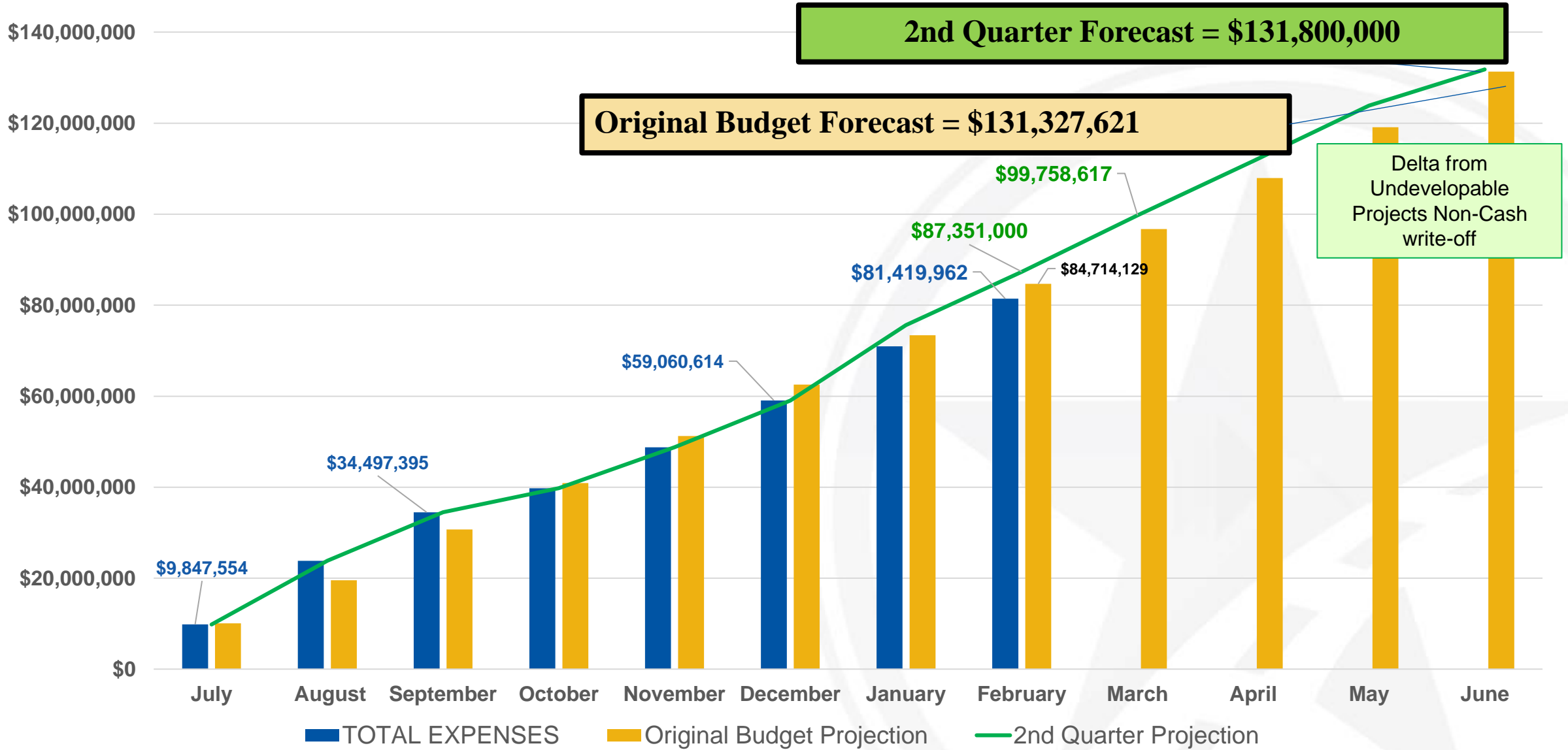


Actual vs Original/Revised Revenue Projections





Actual vs Original/Revised Expense Projections



Discuss and consider authorizing the application for and negotiation of a loan agreement with the United States Department of Transportation relating to the financing of the 183 North Mobility Project

9

William Chapman

Interim Executive Director and Chief Financial Officer

Discuss and consider approving a contract with Deloitte Consulting LLP through the Texas Department of Information Resources Cooperative Contracts Program for the development of a data platform and associated transaction routing and system interfaces to support toll transaction management

10

Tracie Brown, Director of Operations
Greg Mack, Assistant Director of Toll Systems and IT



Data Platform Strategic Alignment

Vision: *(What we want to achieve within the next three years)*

- » Optimize the use of our current infrastructure, best practices and new technology to affect real change within our transportation network that will serve our region for decades to come.

Mission: *(How we will fulfill our Vision)*

- » Implement innovative, multi-modal transportation solutions that reduce congestion and create transportation choices that enhance quality of life and economic vitality.

Objectives: *(To fully realize our potential, the Mobility Authority board and staff have determined that establishing the following goals will help us achieve our vision)*

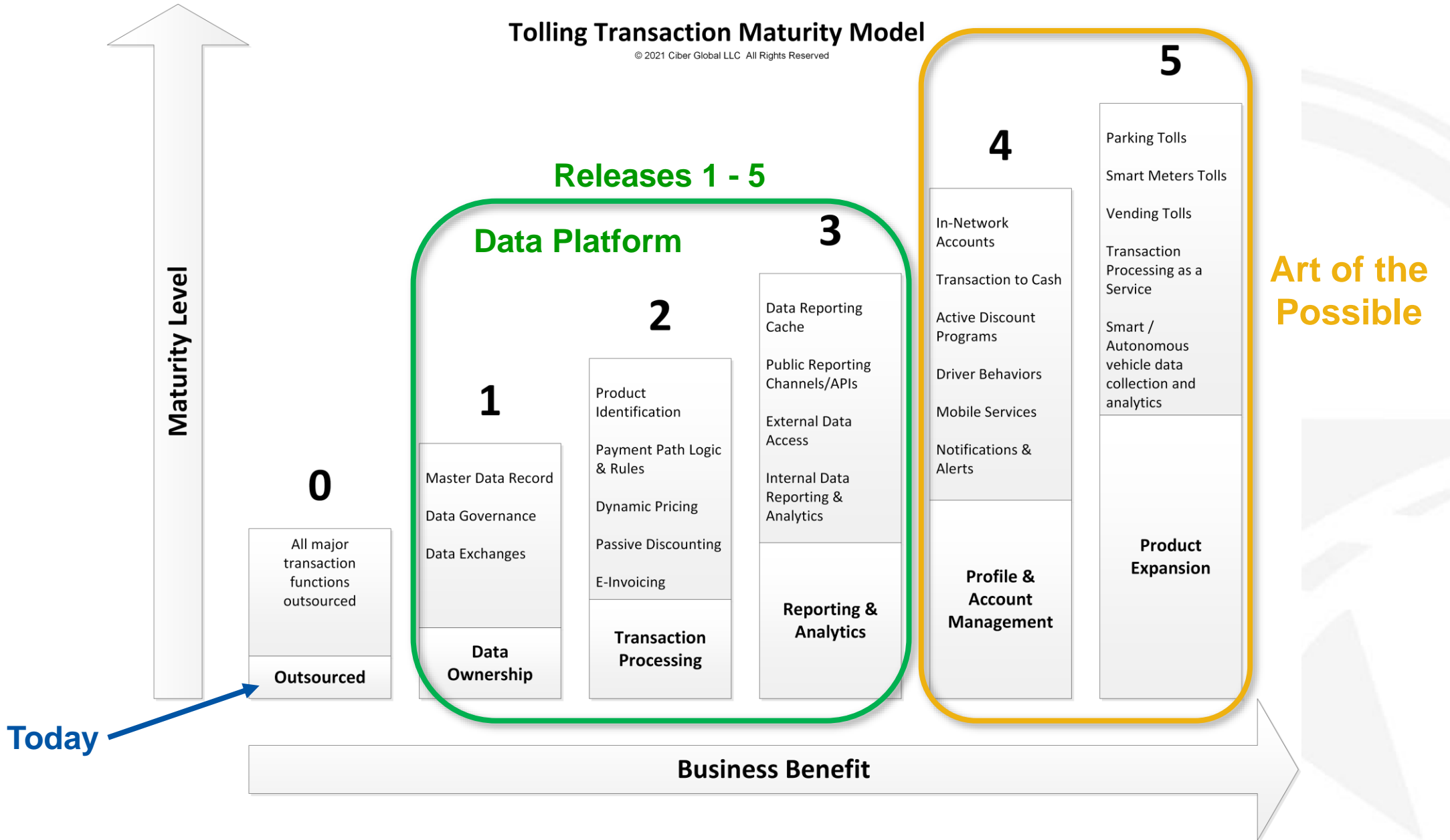
- » **Deliver Multi-Faceted Mobility Solutions**
- » Employ a Collaborative Approach to Implementing Mobility Solutions
- » **Invest in Efforts that Extend Beyond Roadways**
- » **Explore and Invest in Transformative Technology and Adopt Industry Best Practices**
- » Deliver Responsible Mobility Solutions That Respect the Communities We Serve
- » Invest in Initiatives That Protect Our Environment
- » Deliver on Commitments to Our Customers and Our Investors



Tolling Transaction Maturity Model

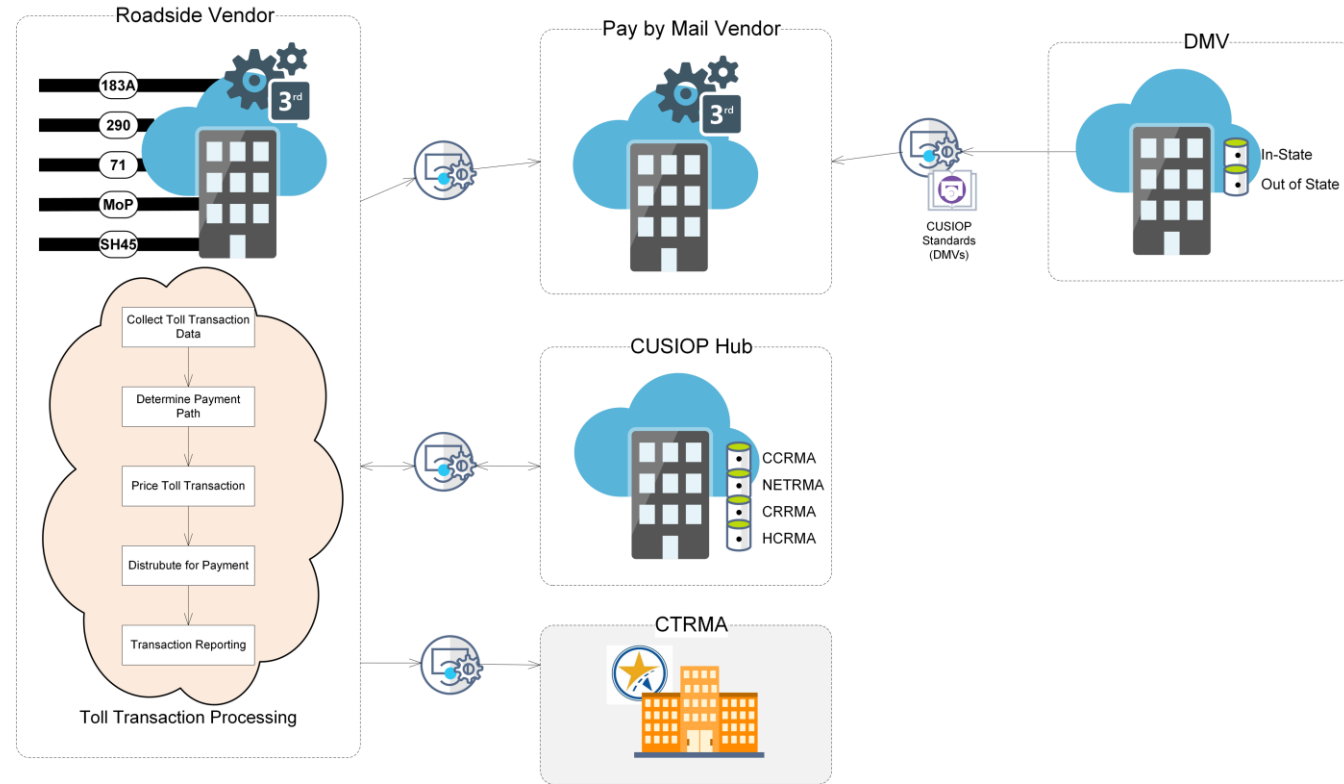
Tolling Transaction Maturity Model

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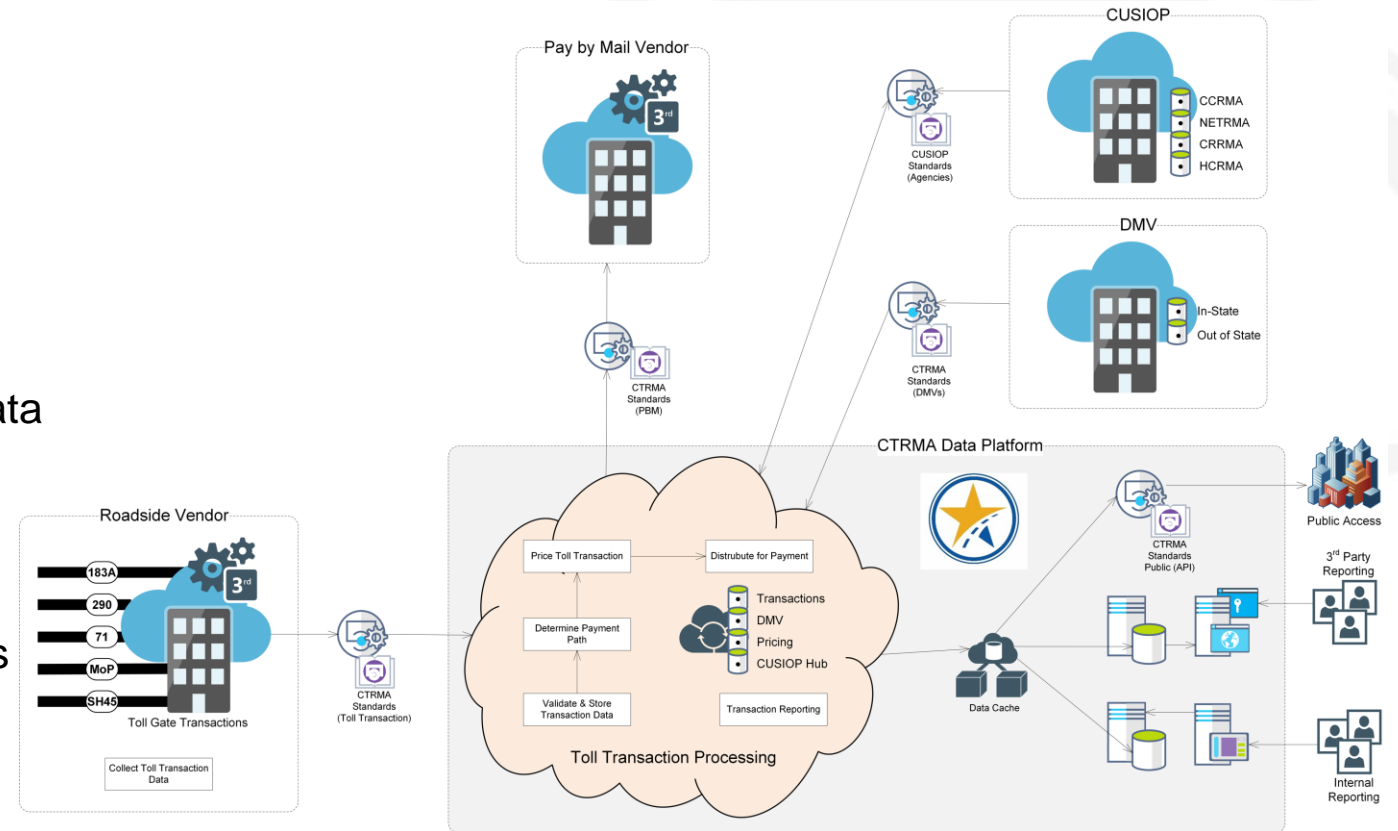
- **Today, the Roadside Vendor...**
 - manages all transaction data
 - determines payment path
 - calculates fixed price
 - distributes the e-invoice
 - provides minimal operational and transactional reports
 - SOC 2 Type 2 Compliance
- **The Pay-By Mail Vendor...**
 - controls the DMV data references
 - manage in-network plate accounts
 - distributes Pay By Mail invoices
 - facilitates collections services
- **CTRMA...**
 - provides fixed pricing charts to Roadside Vendor
 - requests reports through the Roadside Vendor





Future State – Data Platform

- **Tomorrow, the Roadside Vendor...**
 - collects and exchanges Transaction data
- **The Pay-By Mail Vendor...**
 - distributes Pay By Mail invoices
 - facilitates collections services
- **CTRMA...**
 - owns, secures, and governs all transaction data
 - determines payment path
 - manages dynamic pricing
 - distributes the e-invoice
 - provides operational management capabilities
 - provides Public, External, and Internal data access, analysis and reporting
 - controls the DMV data sources
 - manages in-network plate accounts
 - ensures Soc 2 Type 2 Compliance





- » **Transaction processing to reduce costs and increase revenue**
 - » Aggregation / trip building
 - » Specific trip discounts (*i.e.*, 183A – Brushy Creek to 1431)
 - » Prepaid account (*Pay By Mail, electronic toll tag*) promotions
 - » Loyalty programs
 - » CTRMA tag program
 - » Oversize vehicle surcharge for MoPac Express Lane
- » **Backoffice system for regional transportation initiatives**
 - » Parking, transit, tolling mobility credits and transaction processing
- » **Data Sharing for public and private**
 - » Enables advanced connected vehicle traffic information messaging
 - » Enable data and information sharing, collaboration with public and private sector (*i.e.*, *MoPac Fare – Waze, Google Maps, Apple Maps*)



- » **Contract:** DBITS Contract #DIR-TSO-4031
- » **Release 1 Scope:** Discovery, Design and Implement Data Platform Solution
 - » Critical Milestone Deliverables:
 - Infrastructure architecture to support the transaction processing solution
 - Data platform application to support the transaction processing data architecture
 - Fixed Toll Road Transaction data architecture
 - Fixed Toll Road external data exchange(s)
- » **Release 2 Scope:** Interim Routing and Data Exchanges
 - » Critical Milestone Deliverables:
 - IOP Hub Data Architecture
 - DMV Data Architecture
 - IOP and DMV external data exchange(s)
 - Automated Payor ID logic
 - Automated Payment Path logic



» **Schedule:**

- » Anticipated date of Notice to Proceed is April 2021
- » Work is estimated to be completed within 22 weeks of NTP

» **Budget:**

- » Total cost not to exceed \$1,694,946 (*includes a 10% project contingency*)
- » Assumes that CTRMA will purchase and/or have available all required software, hardware, and hosting in support of the agreed upon scope of work.
- » Payments due upon CTRMA acceptance of the 17 outlined deliverables



- » **Staff recommends approving a contract with Deloitte Consulting LLP for the development of a data platform and associated transaction routing and system interfaces to support toll transaction management through their contract with the Texas Department of Information Resources.**
- » **Next steps:**
 - » Begin Discovery Workshops
 - » Assess cost of Releases 3 – 5 development and initiate procurement
 - » Seek Board approval on additional contracts / IT purchases

Discuss and consider approving the purchase of a Google Enterprise Agreement subscription from Carahsoft through the Texas Department of Information Resources Cooperative Contracts Program in support of the Mobility Authority's data platform host project

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Greg Mack

Assistant Director of Toll Systems and IT



- » **Cloud computing** allows hardware and software products to co-exist remotely (in data centers) and at-scale. Together these products work to deliver specific services. Users typically can access, manage, and use the tools they require via a web-interface.

- » **Google Cloud Platform key products:**
 - » Cloud SQL – Database
 - » Big Query – Database Warehouse
 - » Compute Engine – Virtual Servers that can scale based on demand
 - » App Engine – Application development



Overview Video





- » **Google's Cloud Platform (“GCP”)** provides a reliable and highly scalable cloud computing services to its users.
- » Key advantages include **accessibility from anywhere; higher uptime and reliability (99.5%); control** over technology and data ownership; and **overhead minimization** resulting from Google’s economies of scale.
- » GCP services are **required to support the development of CTRMA’s data platform.**
 - » The Google Cloud Platform must be in place for developers to build, test, and deploy applications.



- » **Procured through DIR:** Contract #DIR-TSO-4162
- » **Product:** Google Cloud Enterprise Agreement for Public Sector
- » **Term:** 15-month subscription
- » **Estimated subscription term:** April 1, 2021 thru June 30, 2022
- » **Cost:** \$9,280.04/monthly (*or \$139,200.54 for the entire 15-month subscription*)



- » **Staff recommends approving the purchase of a Google Enterprise Agreement subscription from Carahsoft through the Texas Department of Information Resources Cooperative Contracts Program in support of the Mobility Authority's data platform host project.**
- » **Next steps:**
 - » Assess the cost of future software needed to support data platform vision and determine when / how to procure
 - » Seek Board approval on additional contracts / IT purchases

Discuss and consider authorizing the Executive Director to issue work authorizations to WSP USA Inc. and Atkins North America, Inc. for general engineering consulting and oversight services for the 183 North Mobility Project

12

Mike Sexton, P.E.

Acting Director of Engineering



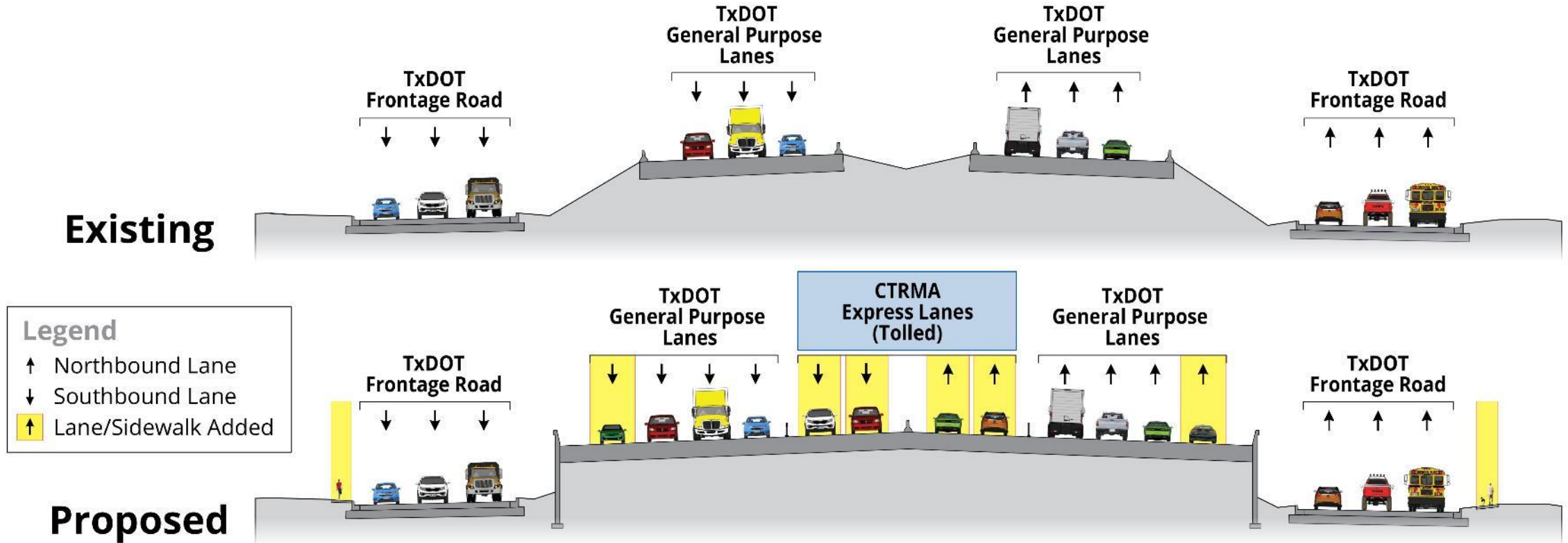
183 North Mobility Project



- » **Project Limits:**
 - » SH 45 to MoPac/Loop 1
- » **Project Length:**
 - » 9 miles on US 183
- » **Total Project Budget:**
 - » \$612 Million
- » **Anticipated NTP:**
 - » April 15, 2021
- » **Open to Tolling:**
 - » January 2026



Project Scope



- » Two express lanes (each direction) and addition of a fourth general purpose lane
- » Direct connector at MoPac and other MoPac operational improvements including a collector-distributor road
- » Sidewalk and intersection improvements for bicycles and pedestrians



» **Scope**

- » Manages overall project delivery, accounting, payment, & document control
- » Performs administrative reporting functions in compliance with Financing, State, and Federal requirements
- » Reviews and approves design submittals
- » Performs utility coordination oversight
- » Provides public involvement activities on behalf of the Mobility Authority

» **Value**

- » Supplements CTRMA staff during the implementation phase of the design-build project.



- » **Total Budget**

- » \$25,993,453

- » **Term of Services**

- » April 2021 – Project Closeout (Anticipated early 2026)



Recommendation

- » Staff recommends that that the Board authorize and direct the Executive Director to execute work authorizations with WSP USA Inc. and Atkins North America, Inc. in an amount not to exceed \$25,992,453 for general engineering consultant and oversight services for the 183 North Mobility Project.

Traffic & Revenue overview for the 183 North Mobility Project

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Bill Ihlo, P.E., Stantec Consulting
Tiffany Cummings, P.E., Stantec Consulting
Michael Bomba, PhD (Socioeconomics)



- » Special niche as T&R consultant to multiple toll agencies
 - » Supported \$8 Billion bond issues for Austin toll roads (\$64 Billion total)

- » Stantec staff history in Austin
 - » Early studies for TTA started in 1998 – 183A, SH 45 N, Loop 1, SH 130
 - » Cash toll policy – periodic toll increases of \$0.25, 10-lane plazas
 - » 183A Phase I financed 2005, opened 2007
 - » 183A Phase II opened 2012 (5 years ahead of schedule)
 - » 183A Lakeline cashless in 2007, Park Street and ramps cashless in 2008
 - » System has grown from 6-mile 183A in 2007 to 45-mile System in 2021 with 14 new miles under contract



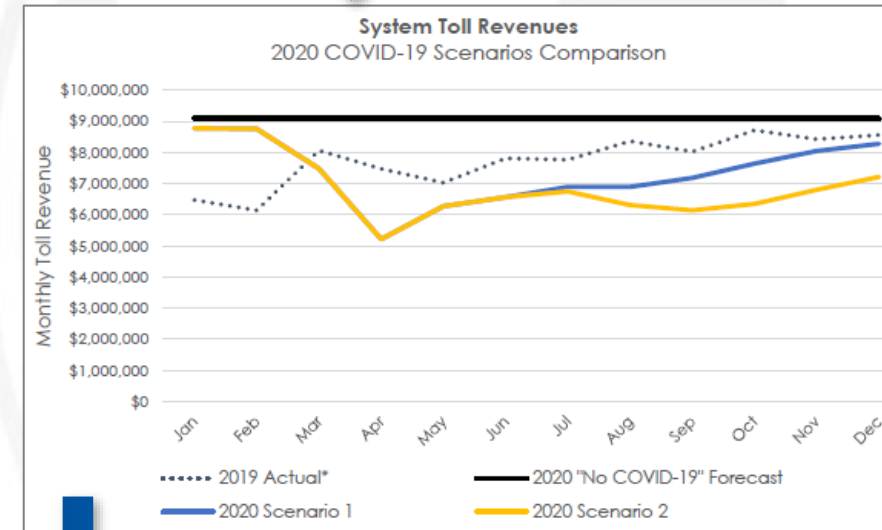
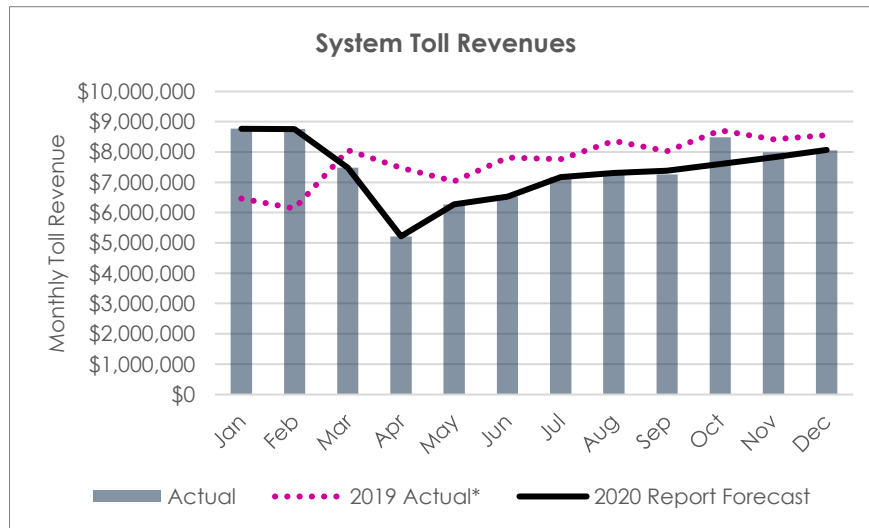
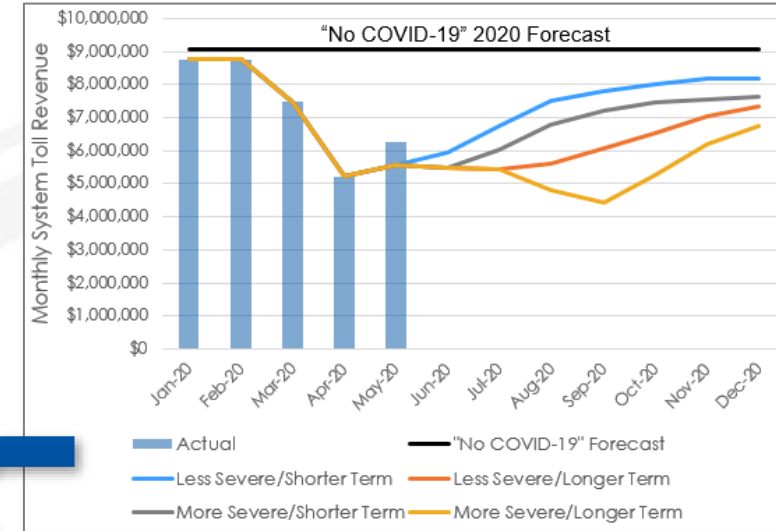
Stantec's Approach during COVID-19

» Internal group to develop consensus-based approach

- » Meet regularly beginning in late March 2020
- » Monitor traffic reports, economic indicators, corporate surveys, etc.
- » Depth and duration? Recovery? Double dip? Vehicle type? Facility type? Regional variations?
- » Short-term impacts (closures and travel restrictions)
- » Long-term impacts (behavioral changes – work from home, online shopping, etc.)
- » Designed in-house survey of Stantec staff

» Scenarios to Forecasts

- » Fluid situation with short “shelf life” of estimates
- » Initially 4 scenarios that varied in severity and duration
- » By Summer 2020, 2 scenarios
- » By Fall 2020, 1 forecast





Socioeconomic Forecasts



Why is socioeconomic data important for T&R forecasting?

- » Population (households) and Employment are inputs into the CAMPO traffic model
 - » Primarily responsible for trip generation for each traffic analysis zone (TAZ) and production of trip tables
 - » Aggressive or conservative socioeconomic forecasts can lead to over-estimating or under-estimating transactions

How did Stantec account for Austin's socioeconomic growth?

- » Estimates provided by an independent socioeconomic data consultant for a base year (2019) and key forecast model years (2025, 2030, and 2040)
 - » Migration rates
 - » Key developments and major employers

The Good News...

- » Austin has a diverse economy with historically strong population and employment growth
- » Opportunity for continued monitoring and updates to socioeconomic forecasts as conditions evolve



Socioeconomic Updates

Population⁽¹⁾

- The Austin-Round Rock MSA was the fastest growing MSA in the country with a population over 1 million residents, between 2018 and 2019

Employment

- The Austin-Round Rock MSA added more than 120,000 jobs between April and December, reversing COVID-19 related losses and ending 2020 with a modest employment gain⁽²⁾
- Applied Materials recently announced a significant expansion to its campus and Samsung is considering a new, world-class chip foundry, both along the 290E corridor. Tesla is building a new Gigafactory near the 183S corridor that will eventually add more than 5,000 jobs.
- Leander recently announced approval of a \$1 billion multi-use development along 183A
- During the COVID pandemic 154 companies have announced plans to either expand or relocate to the Austin region adding 21,864 jobs⁽⁴⁾

Real Estate⁽³⁾

- Jan 2021 regional single-family home sales were up 24% over Jan 2020
- Jan 2021 median sales price was up 24% over Jan 2020
- Jan 2021 housing inventory was at 0.4 months, a decrease of 1.3 months from Jan 2020

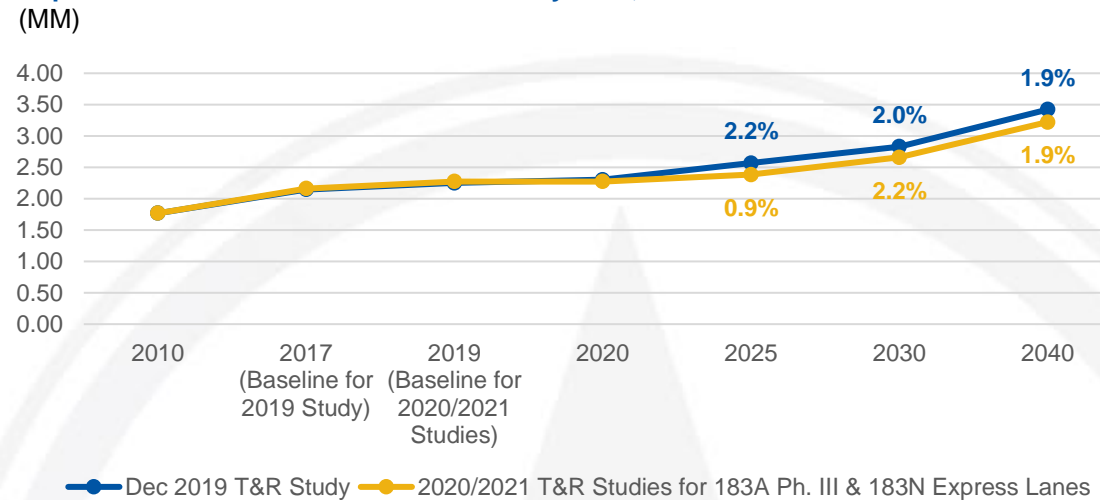
Population Assumptions

- COVID-19 has likely impacted in- and out-migration in the Austin region, which has been its primary driver of growth
- In- and out-migration rates are equal (no net migration) for 2020 and 2021
- Transition to normal net migration rates by 2025

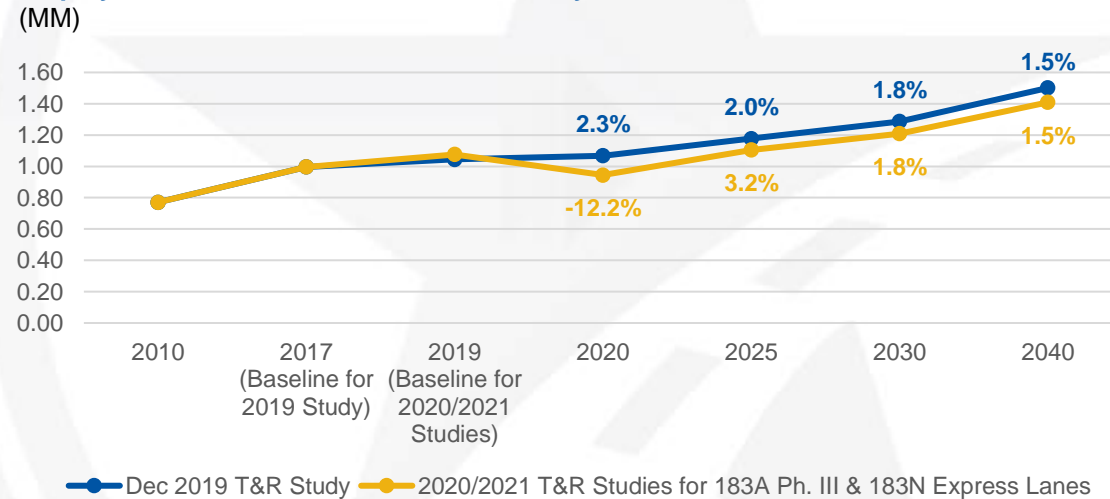
Employment Assumptions

- Lowest levels in 2020
- No net employment growth for 2020 and 2021
- Workforce recovery by 2024, or a 4-year decline and recovery

Population Forecasts for the CAMPO Study Area, 2010-2040



Employment Forecasts for the CAMPO Study Area, 2010-2040



(1) U.S. Bureau of the Census
 (2) Bureau of Labor Statistics – Unadjusted Current Employment Statistics (CES), 2020
 (3) Austin Board of Realtors MLS Report for December 2020
 (4) Austin Chamber, 2021



Recovery to “New Normal”



Why are future travel behaviors important for T&R forecasting?

- » Trips by purpose are inputs to travel demand models (i.e. work, school, shopping, other)
 - » 2010 American Community Survey (ACS) estimates 7.3% of workers in Austin MSA work from home
 - » If work from home percentage doubled, the number of work trips in the travel demand model could decrease by nearly 8%

How did Stantec account for changes in travel behaviors?

- » Updated socioeconomic forecasts slowed growth of trip tables (from 2025 on)
- » Trip table adjustments for 2020 & 2021
 - » Sensitivity testing led to 35% reduction in work trips (or 10% reduction in total trips)
 - » Validated against 2020 transaction data (within 1% on 183A, 290E, and 71E)
 - » 2021 model used for interpolating 2021-2024 and estimating 183S Full Build

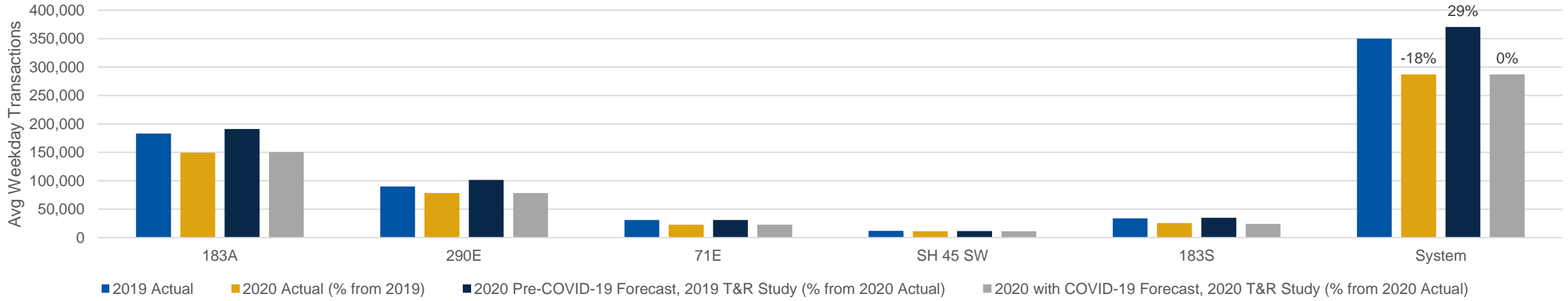
The Good News...

- » Austin's historical growth could fill the demand lost due to more work from home
- » Time of day patterns may look different, but CTRMA's dynamic toll policy allows flexibility to respond

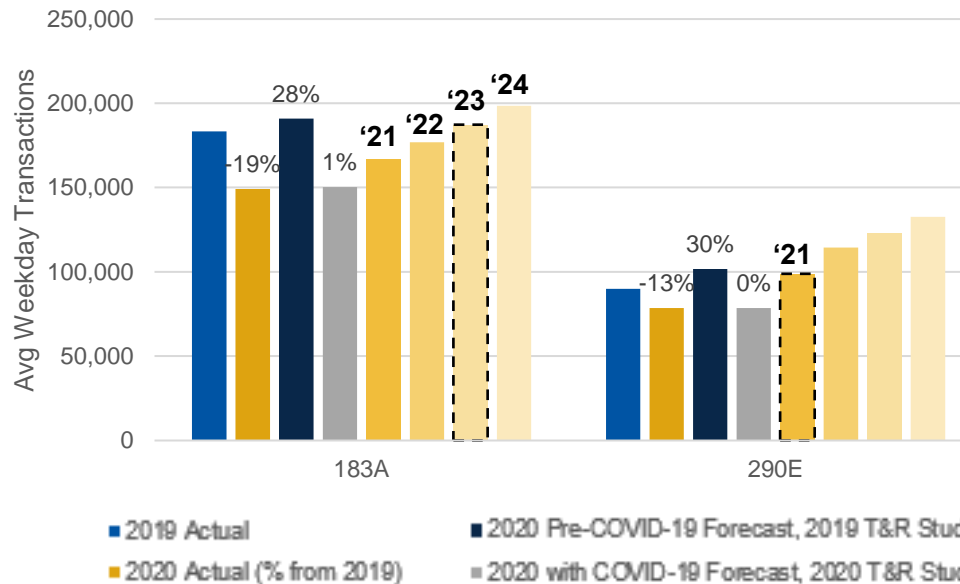


Actuals vs Forecasts by Roadway

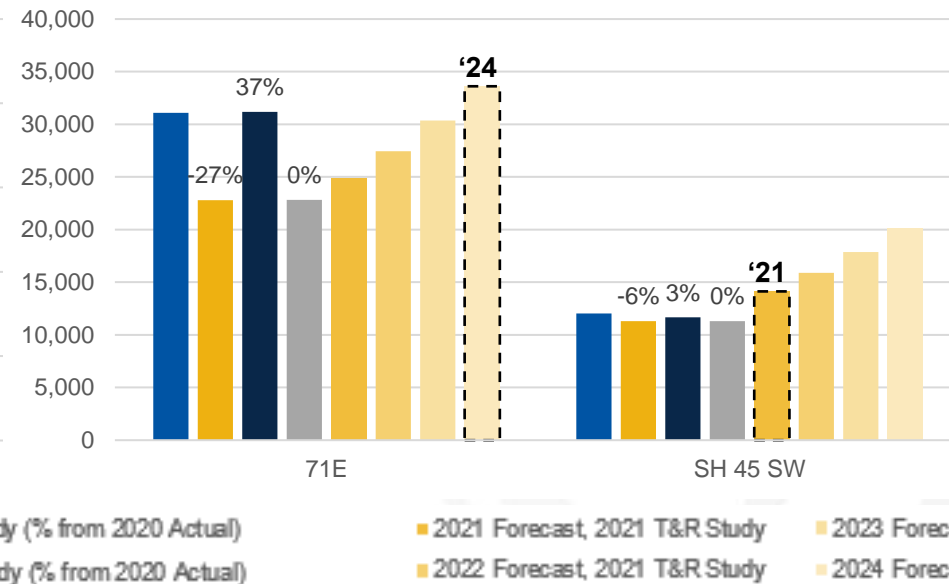
Comparison by System Roadway



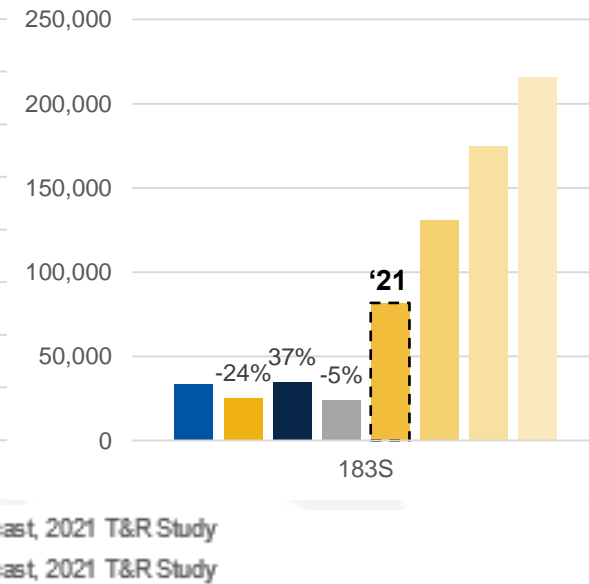
183A and 290E



71E and SH 45 SW



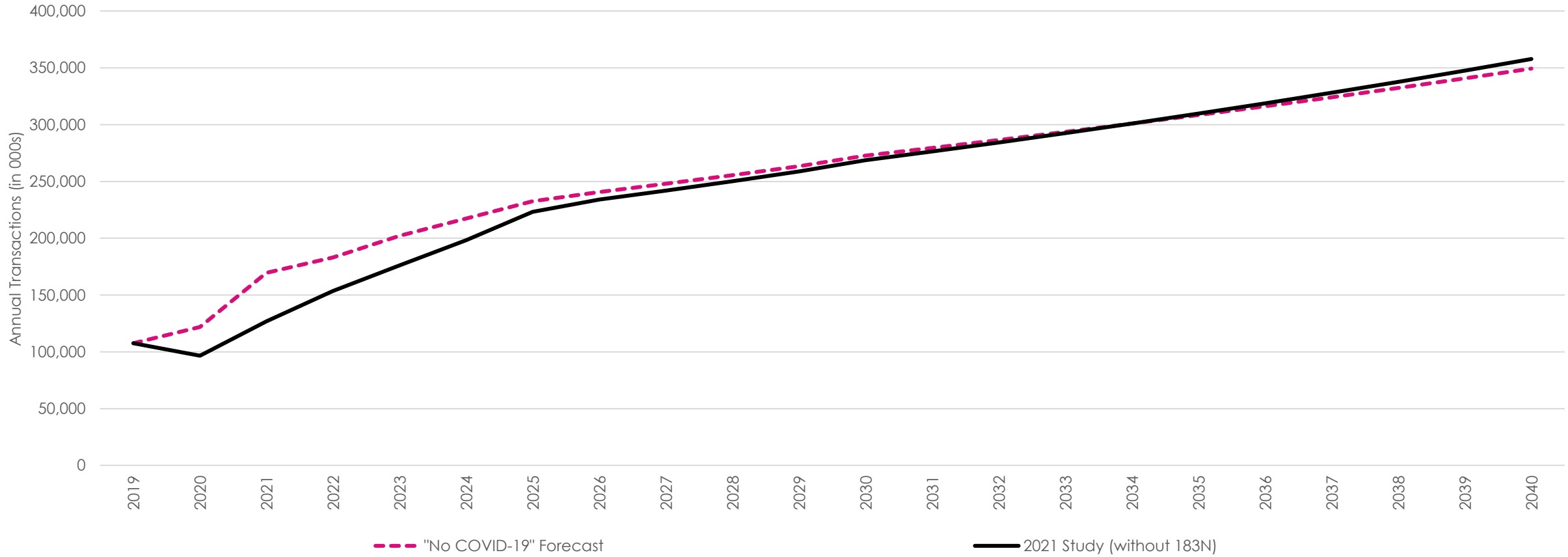
183S





Long-Term System Transaction Forecasts

Annual System Transaction Forecasts (in 000s)

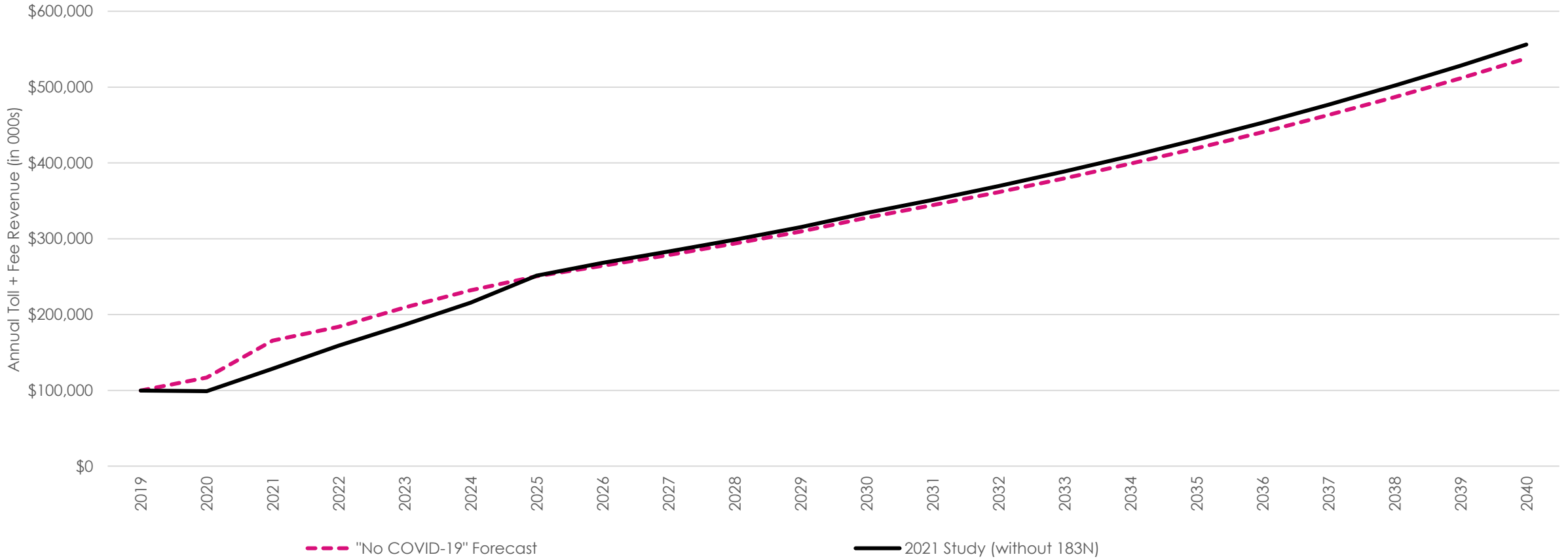


	<u>2021</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>	<u>2040</u>
2021 Study (without 183N)	126,802	223,327	268,648	309,794	357,796
"No COVID-19" Forecast	169,499	232,681	272,804	308,436	349,346



Long-Term System Revenue Forecasts

Annual System Toll + Fee Revenue Forecasts (in 000s)



	<u>2021</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>	<u>2040</u>
2021 Study (without 183N)	\$128,423	\$251,393	\$334,013	\$430,515	\$556,144
"No COVID-19" Forecast	\$165,636	\$250,542	\$327,670	\$419,321	\$537,911



183N and System Forecasts



Why are traffic trends important for T&R forecasting?

- » Transactions and toll rates are outputs from time-of-day models
 - » Less demand → Less congestion → lower travel time savings → lower toll road usage (and lower express lane tolls)

How did Stantec account for changes in traffic patterns?

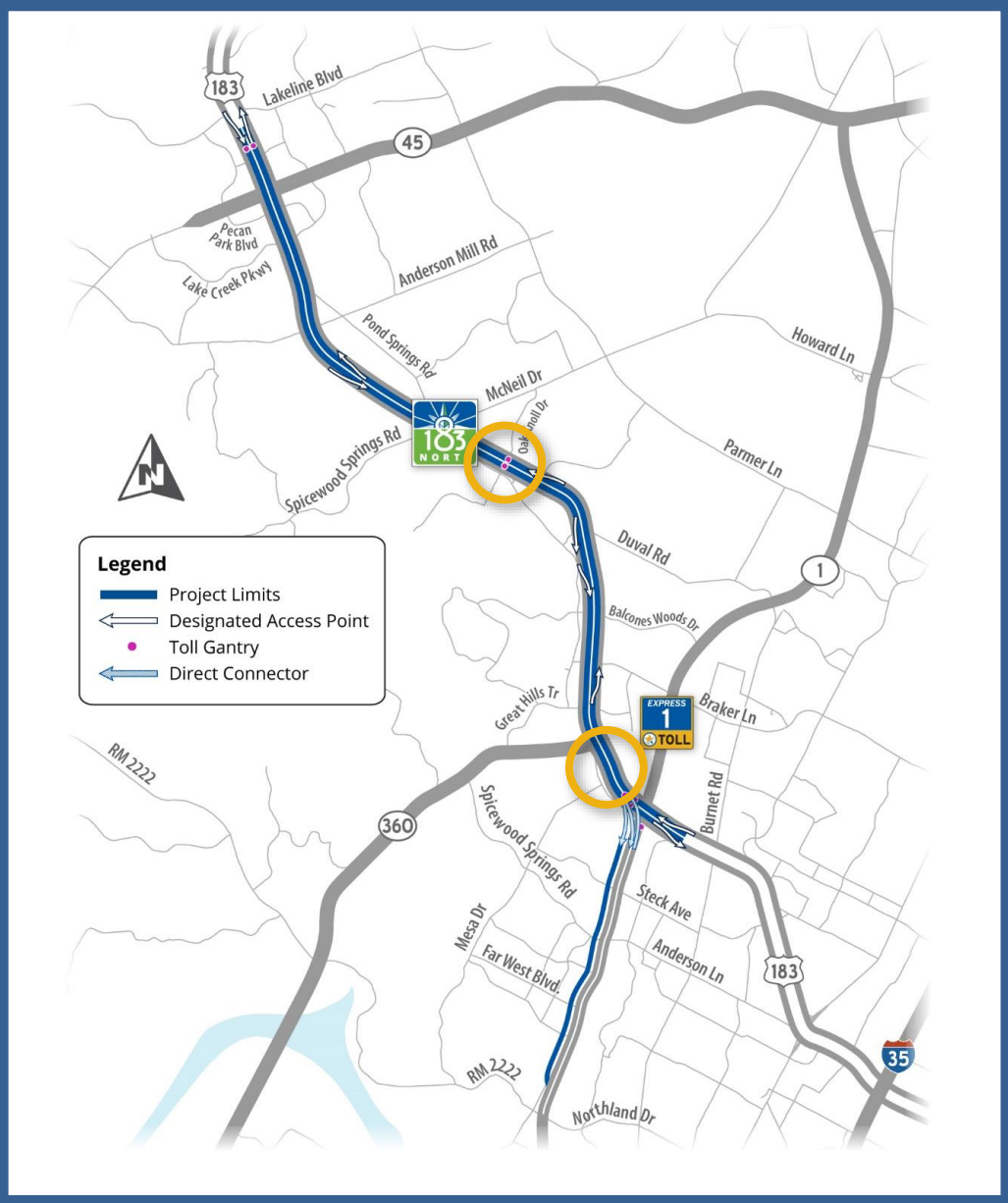
- » Reduced demand through updated socioeconomic forecasts & trip table adjustments
- » Optimized minimum toll rates for 183N Express Lanes
 - » Sensitivity testing of higher minimum toll rates by time period (AM, Midday, PM, and Nighttime)
 - » Focus on 2025 model year (closest to 2026 opening year)

The Good News...

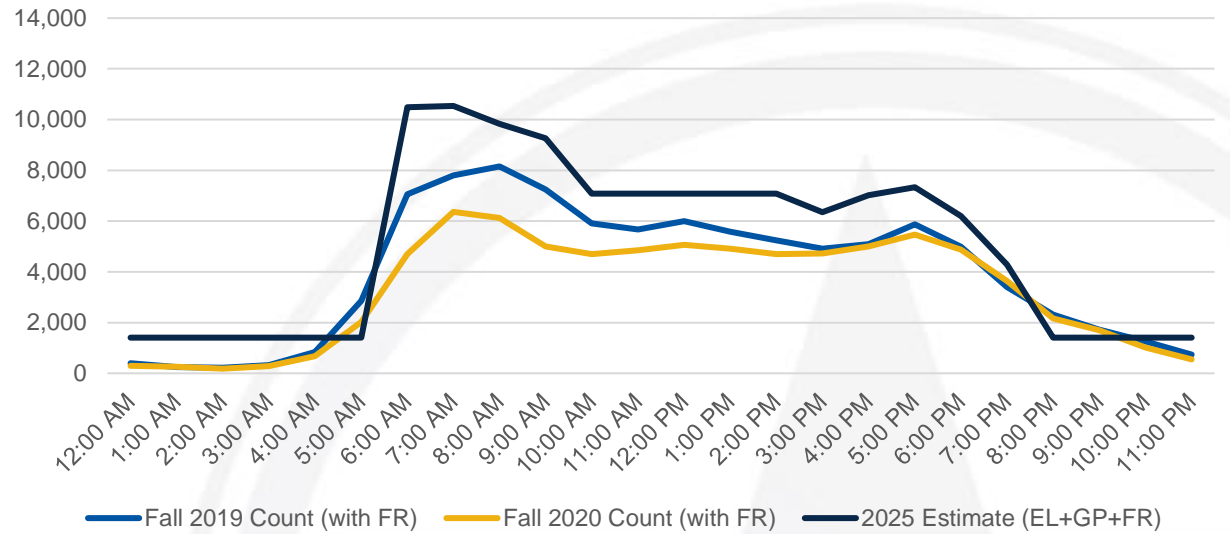
- » CTRMA facilities are performing better than most facilities around the U.S.
- » Opportunity for continued monitoring (traffic and transaction levels, socioeconomic developments)
- » Opening year minimum toll rates for 183N Express Lanes can be re-evaluated as conditions evolve



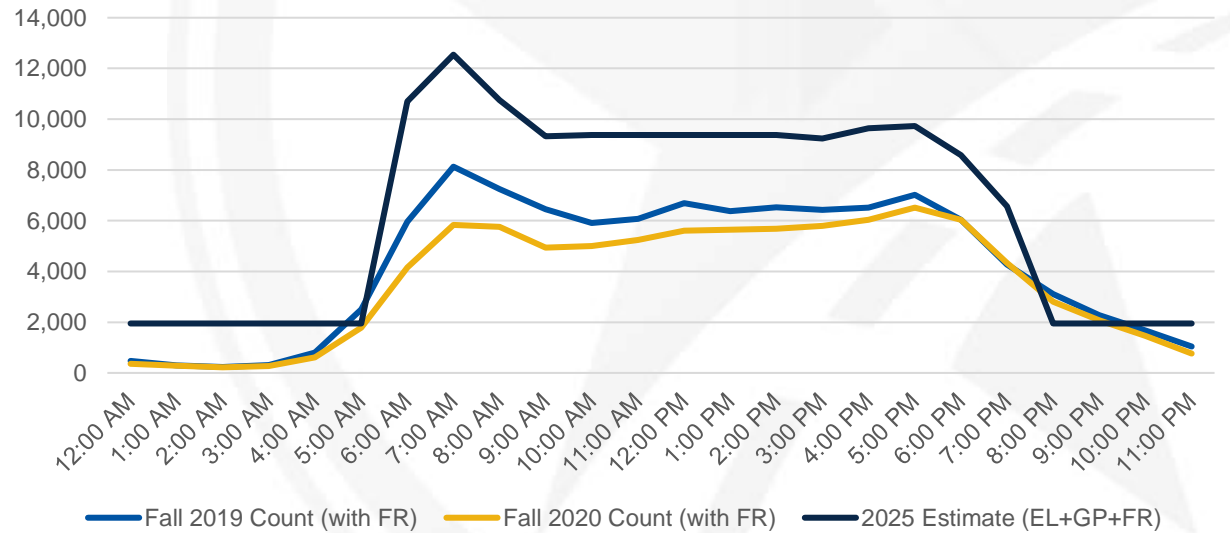
183N Avg Weekday Volumes (2019 to 2025) - SB 64



South of McNeil - SB

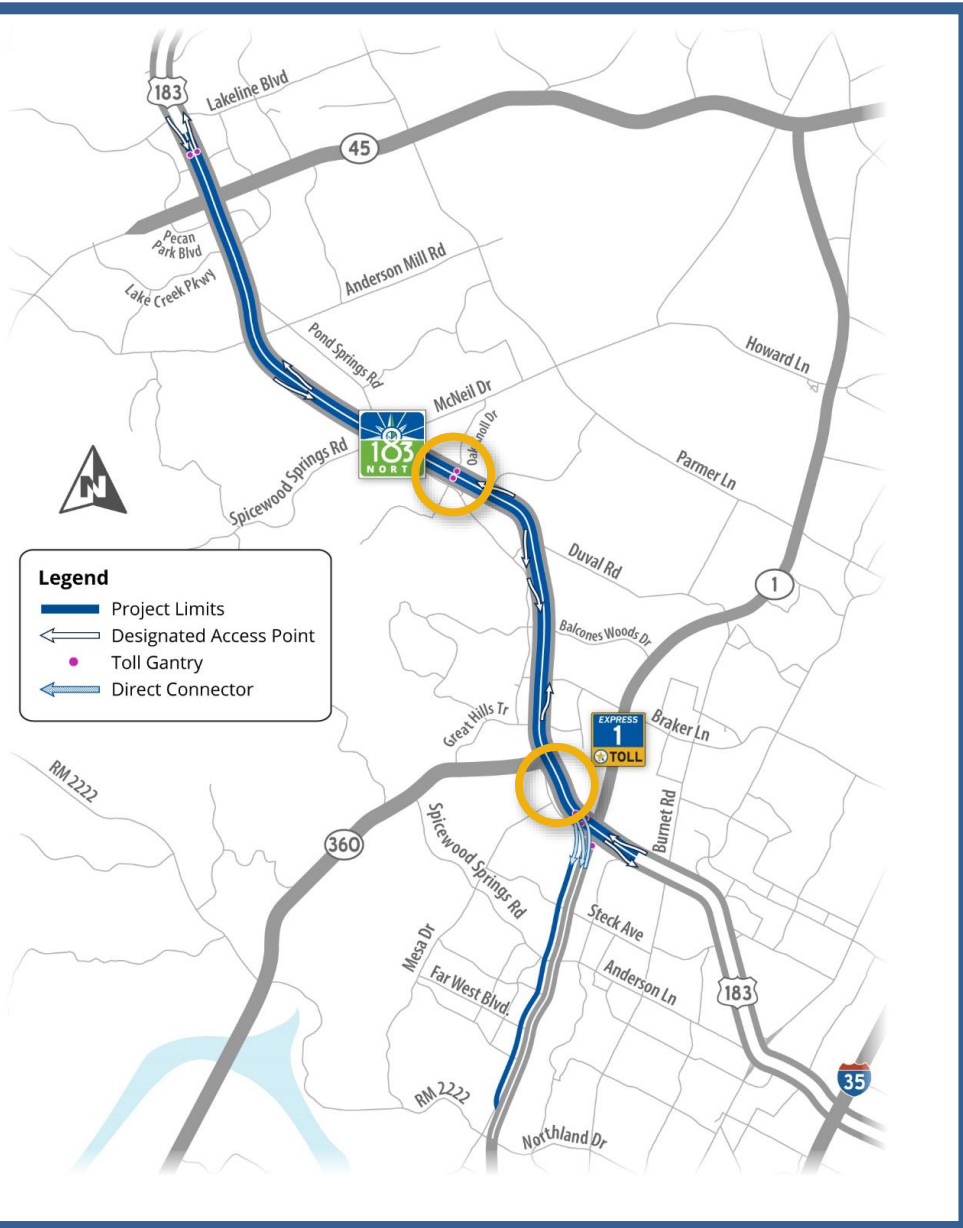


North of Loop 1 - SB

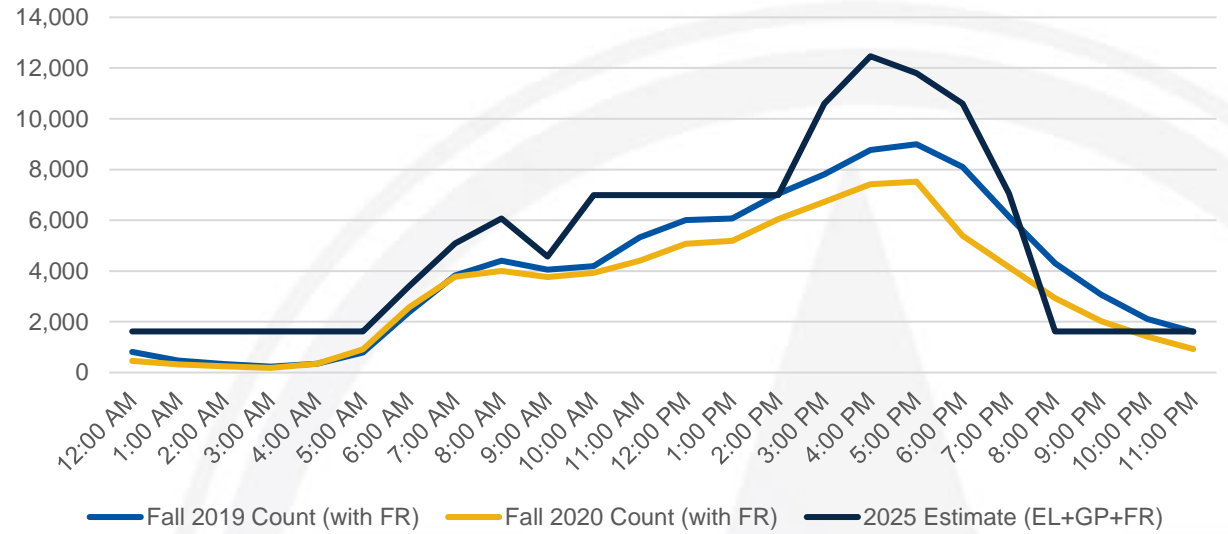




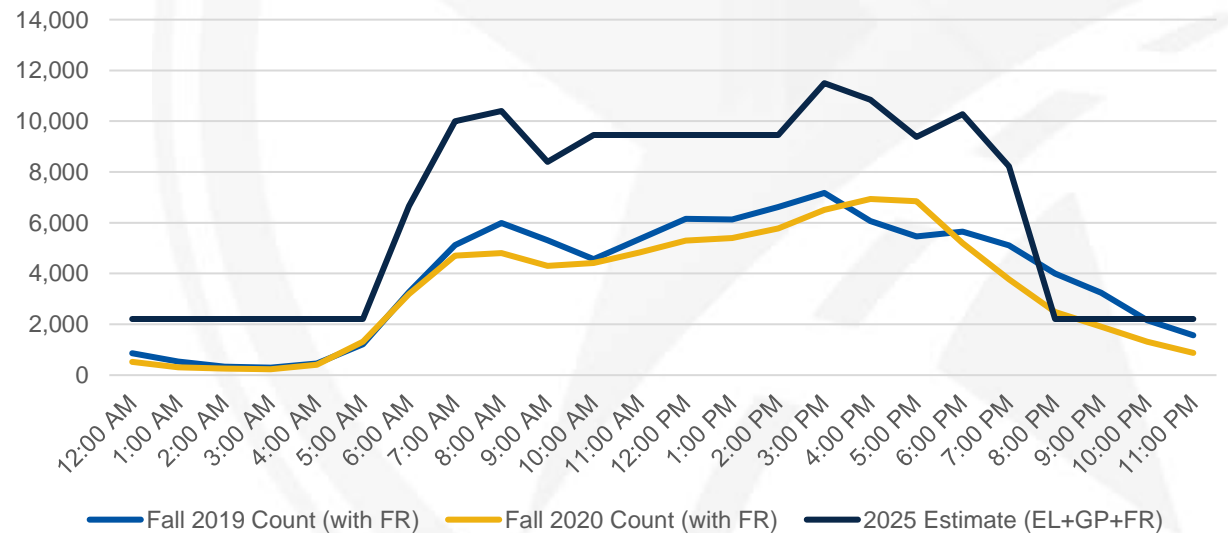
183N Avg Weekday Volumes (2019 to 2025) - NB ⁶⁵



South of McNeil - NB



North of Loop 1 - NB

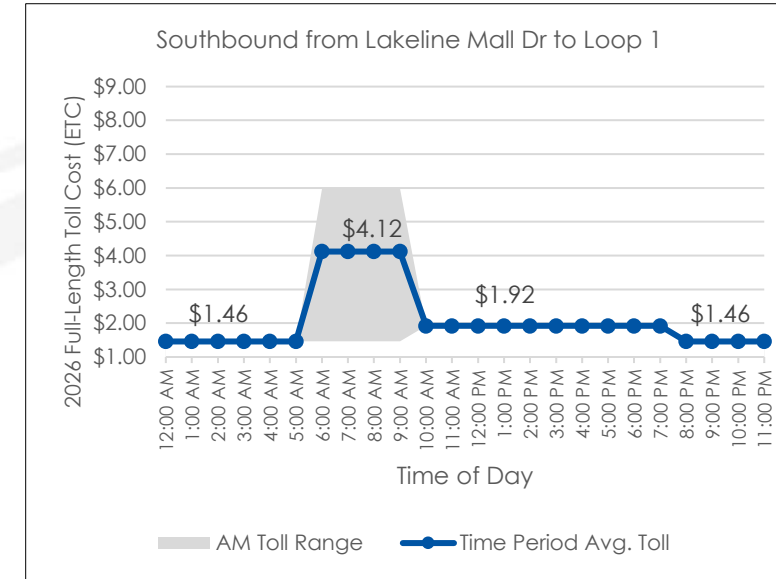
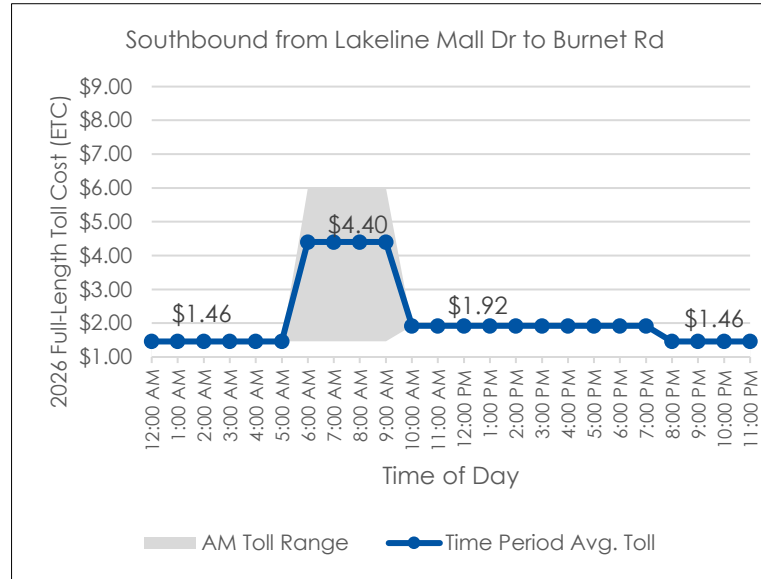




183N Full-length Trips

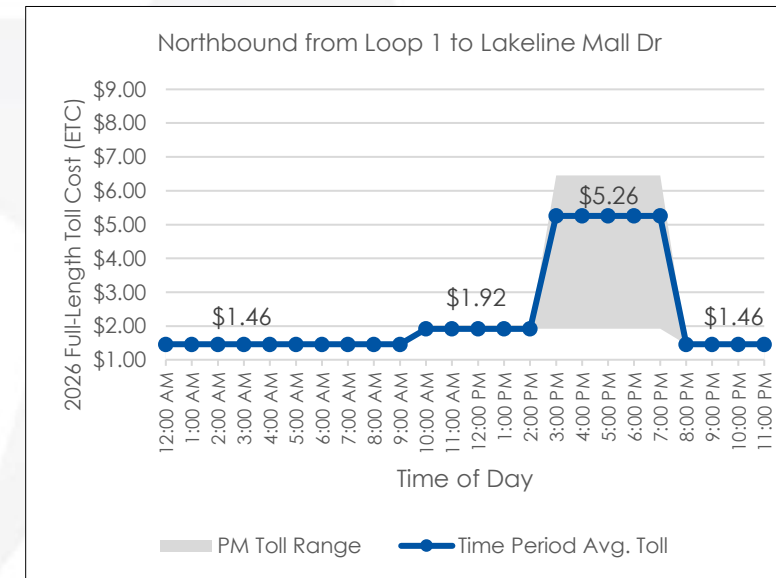
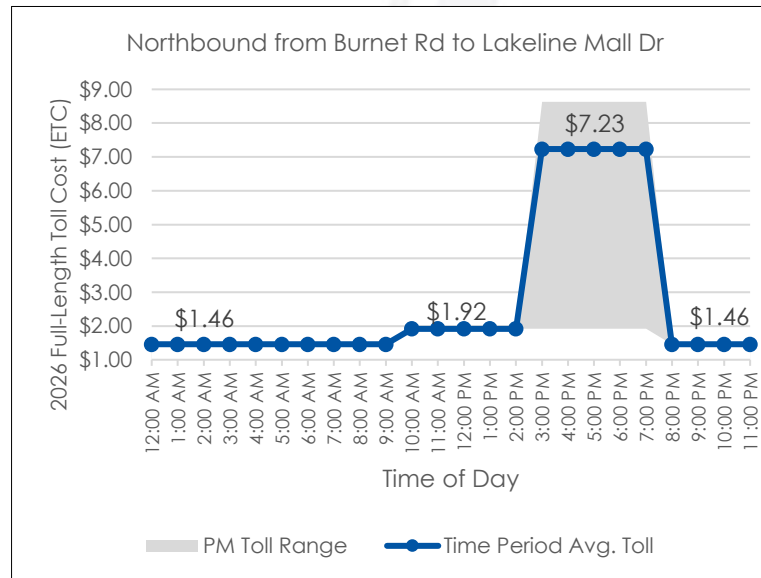
Travel Times – SB AM

Year	183N Express Lanes	183N General Purpose Lanes
2019	-	9 – 12 min
2025	-	12 min or more
2026	7 – 8 min	9 – 12 min
2030	7 – 9 min	10 – 14 min
2040	7 – 10 min	11 – 24 min



Travel Times – NB PM

Year	183N Express Lanes	183N General Purpose Lanes
2019	-	9 – 17 min
2025	-	17 min or more
2026	7 – 8 min	9 – 18 min
2030	7 – 9 min	9 – 19 min
2040	7 – 10 min	10 – 26 min

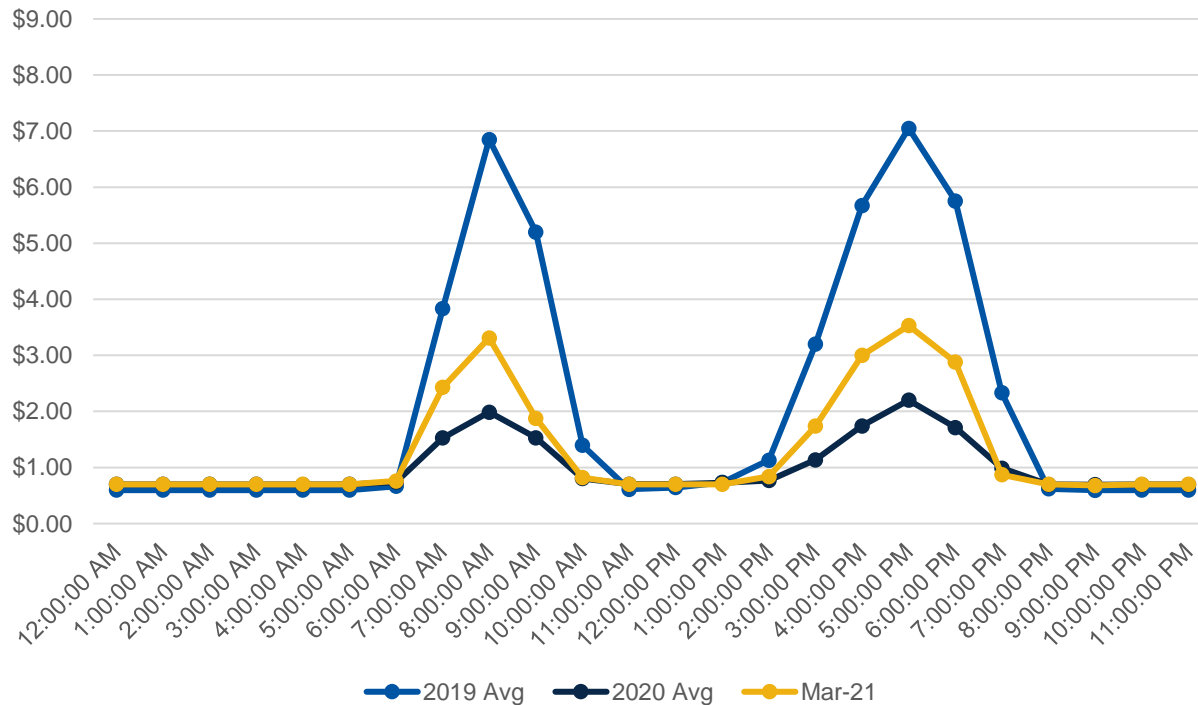




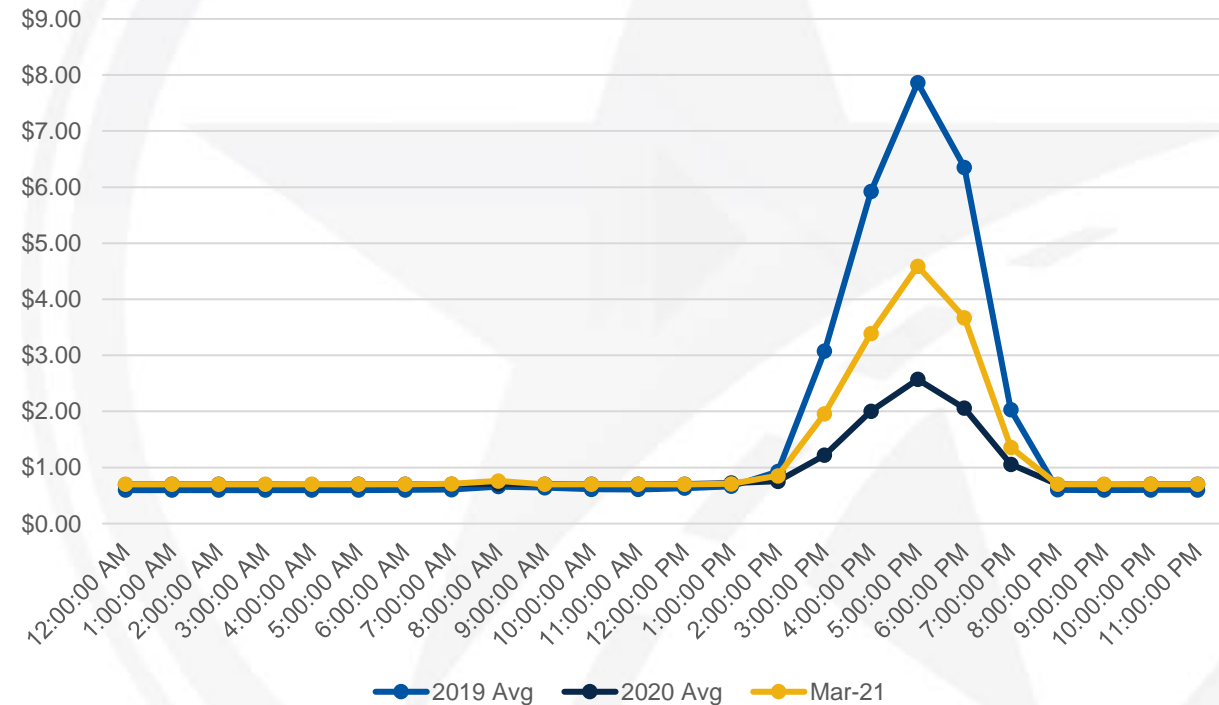
MoPac N Express Lanes

- » Sharp changes in toll rates are typical for express lanes
- » Early March 2021 MoPac N Express Lanes daily transactions are about 35% lower than early March 2020 levels
- » March 2021 toll rates during peak periods are between 5% and 65% lower than 2019 levels
- » January 2021 revenues were 79% lower than January 2020

Southbound from Parmer Ln to Cesar Chavez St



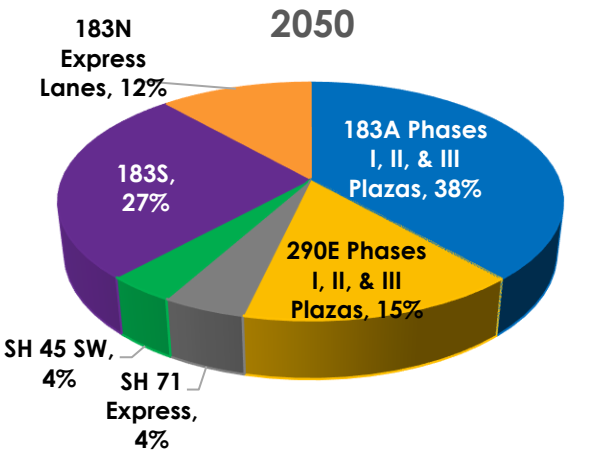
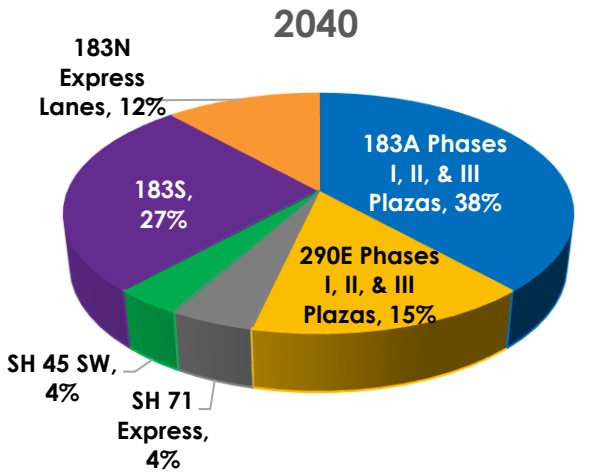
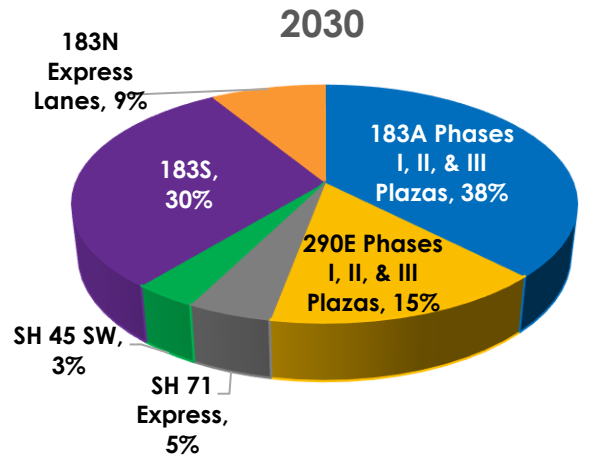
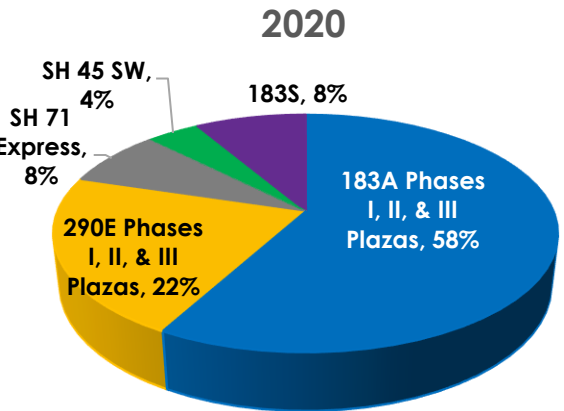
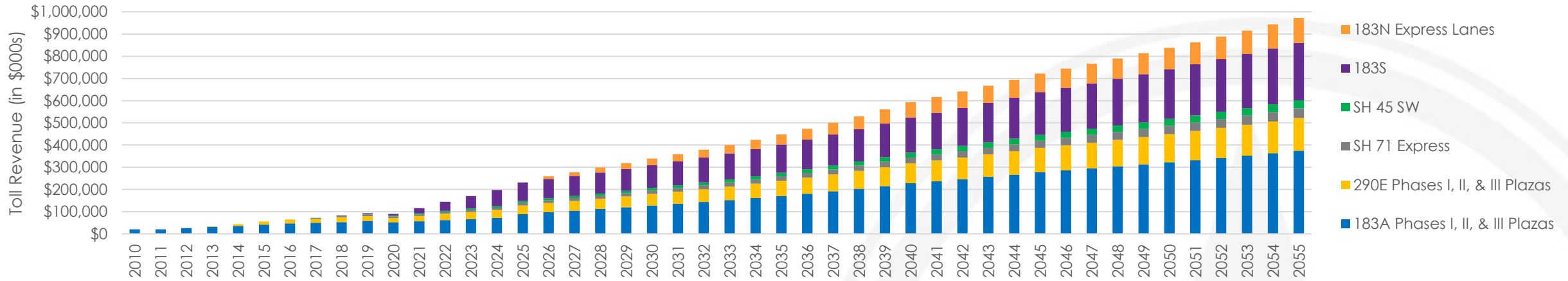
Northbound from Cesar Chavez St to Parmer Ln





Long-Term System Diversification

System revenues are becoming more diversified



Additional Back-up





- » Regional model
 - » Independent socioeconomic data review
 - » Toll diversion equation determines transactions
- » Conservative assumptions for financing
- » Long-term trends with caveats for extreme events
 - » Expect deviation from smooth line forecast in any particular year
- » Period updates to forecasts

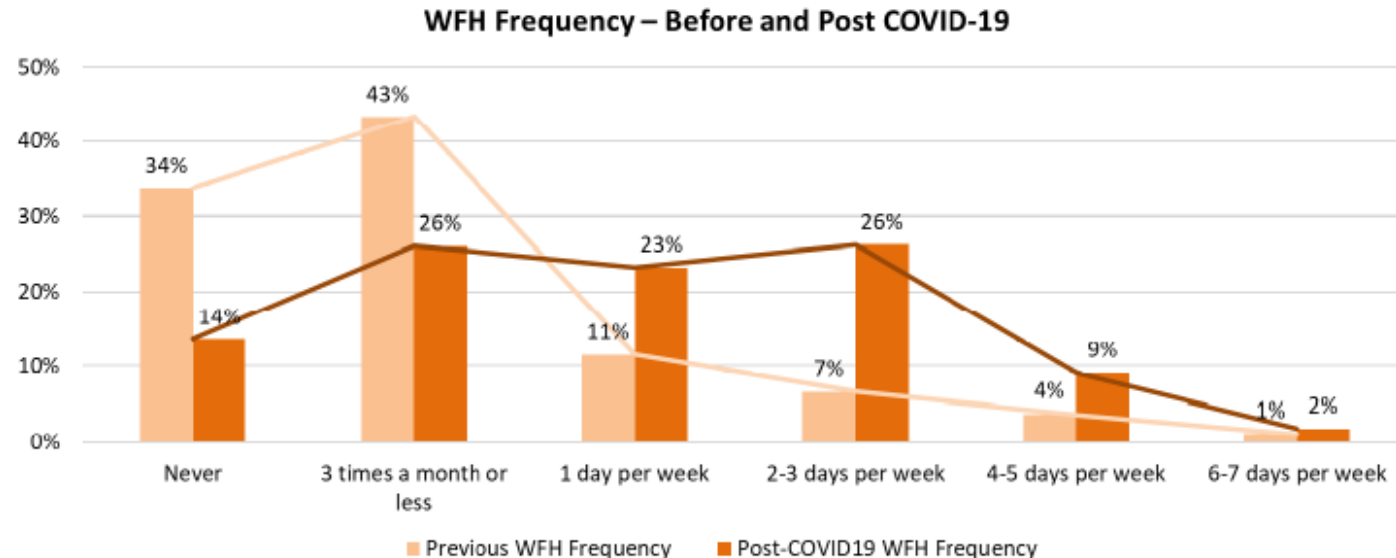


» Stantec’s survey of its own employees

- » Goal to quantify the sentiment about working from home, taking transit, and reducing trips
- » Over 3,500 responses between April 6, 2020 and May 8, 2020
- » Respondents reported previous travel behaviors and estimated their future behaviors once a return to “normal”
- » Bias toward individuals in professional services sectors

» Survey results

- » Work from home about 1 additional day per week
- » Work trips via personal vehicles decline 11%
- » Public transit trips decline 19%





» CTRMA Survey

- » Similar questions to Stantec survey, but additional emphasis on toll road usage
- » Over 900 responses between July 13, 2020 and September 7, 2020

» Survey results

- » Work from home about 1 additional day per week
- » Work/School trips via personal vehicles decline 25%
- » Personal trips via personal vehicles decline 6%
- » Public transit trips decline 5%

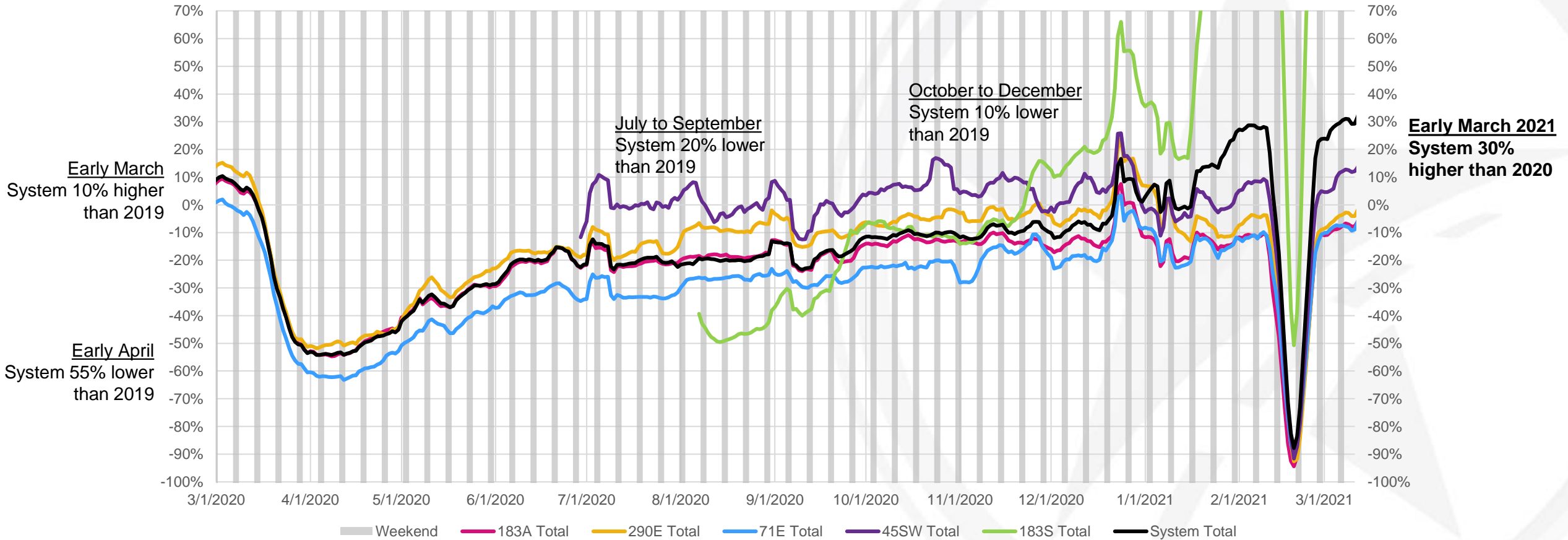
Facility	Respondents Using Facility Before COVID-19 (at least once a month on avg)	% Change in Toll Road Usage
183A	430	-14%
290E	278	-17%
71E	227	-6%
183S	304	-13%
45 SW	248	-15%
MoPac Express Lanes	399	-19%
MoPac Free Lanes	677	-18%
US 183 (between SH 45N/FM 620 and Loop 1/MoPac)	475	-17%



Daily Transaction Trends (Mar 1, 2020 to Mar 11, 2021) ⁷³

- 183A (pink) followed the System until 183S opened more plazas.
- 183S (green) is significantly higher than 2019 levels due to additional plazas that were not open in 2019.
- 45SW (purple) outperformed the System because it is a new facility in ramp-up.
- 290E (yellow) slightly outperformed the System due to new Phase III plaza for 2 tolled DCs.
- 71E (blue) tracks lower than the System due to its proximity to the airport.

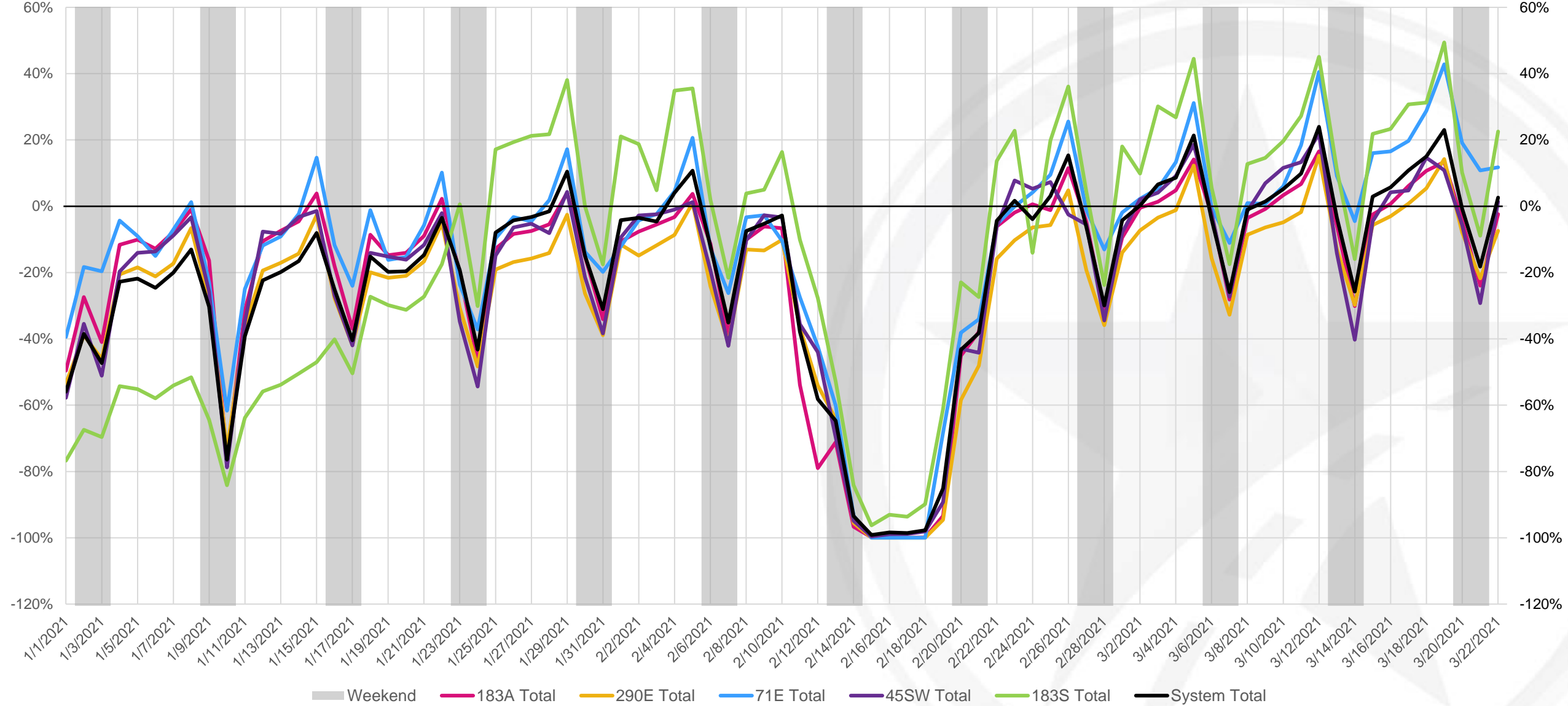
7-day Rolling Average of CTRMA Transactions, March 1, 2020 to March 11, 2021
% Difference Compared to Previous Year Equivalent Week





Comparison to 2021 Forecast

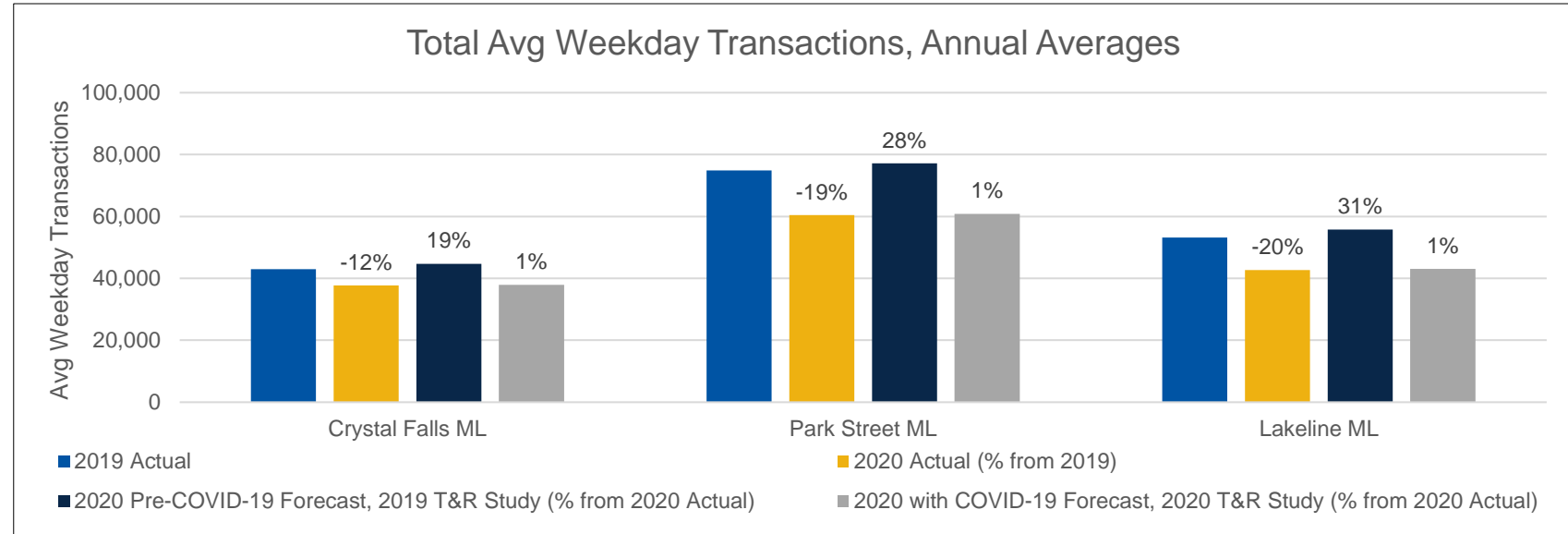
Daily CTRMA Transactions, January 1, 2021 to March 22, 2021
% Difference Compared to Forecasted Average Weekday (Mar 2021 T&R Study)



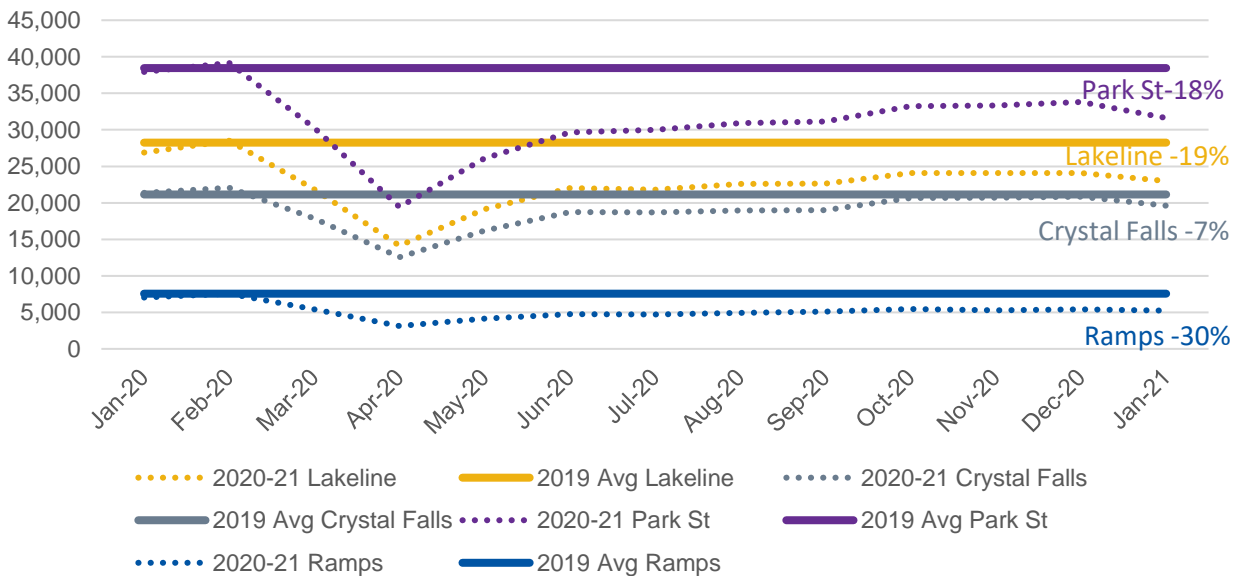


183A Mainline Recovery & Forecast Comparison

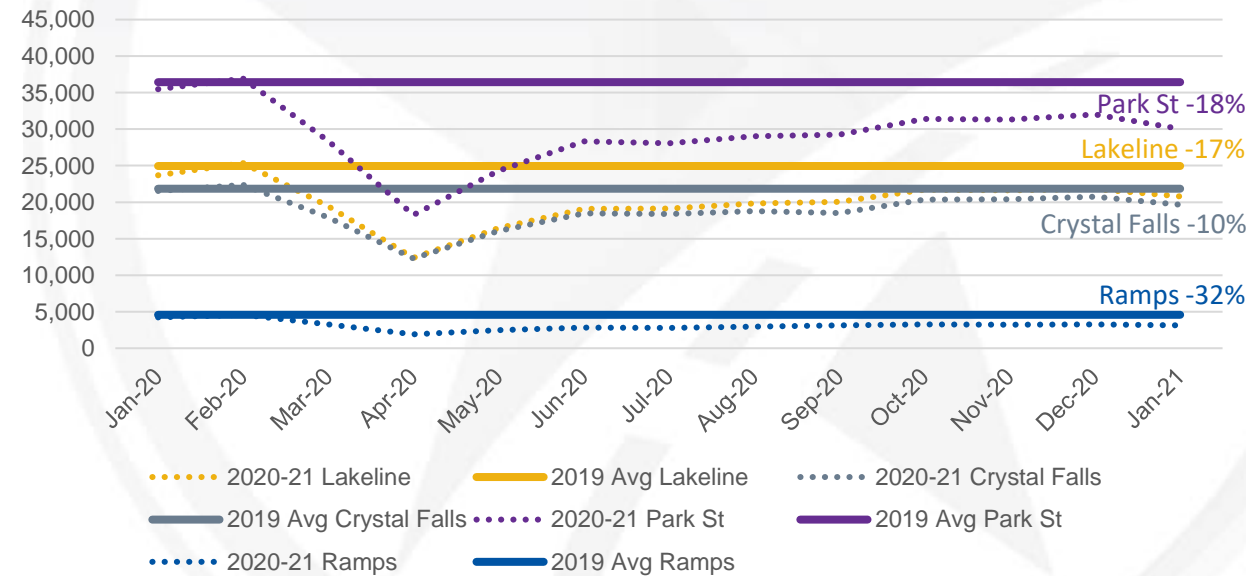
- January 2021 transactions compared to average 2019 levels
 - Park Street ML transactions are 18% lower
 - Lakeline ML transactions are 17-19% lower
 - Crystal Falls ML transactions are 7-10% lower
 - Ramp transactions are 30-32% lower



NB Avg Weekday Transactions, Monthly



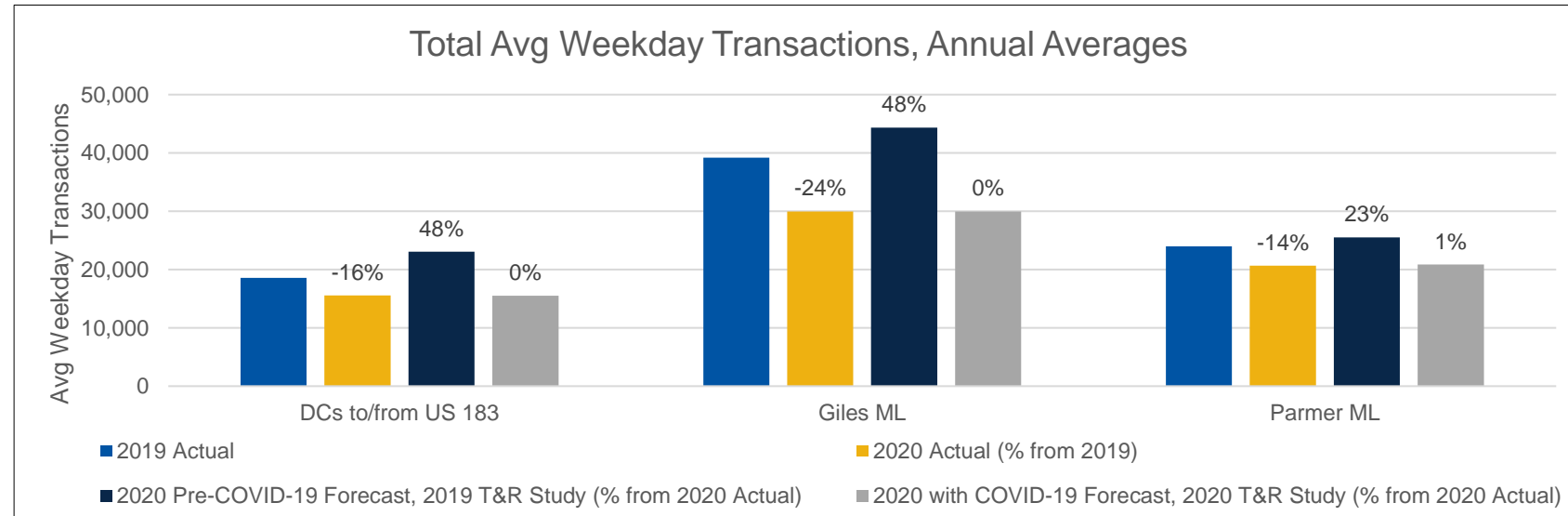
SB Avg Weekday Transactions, Monthly



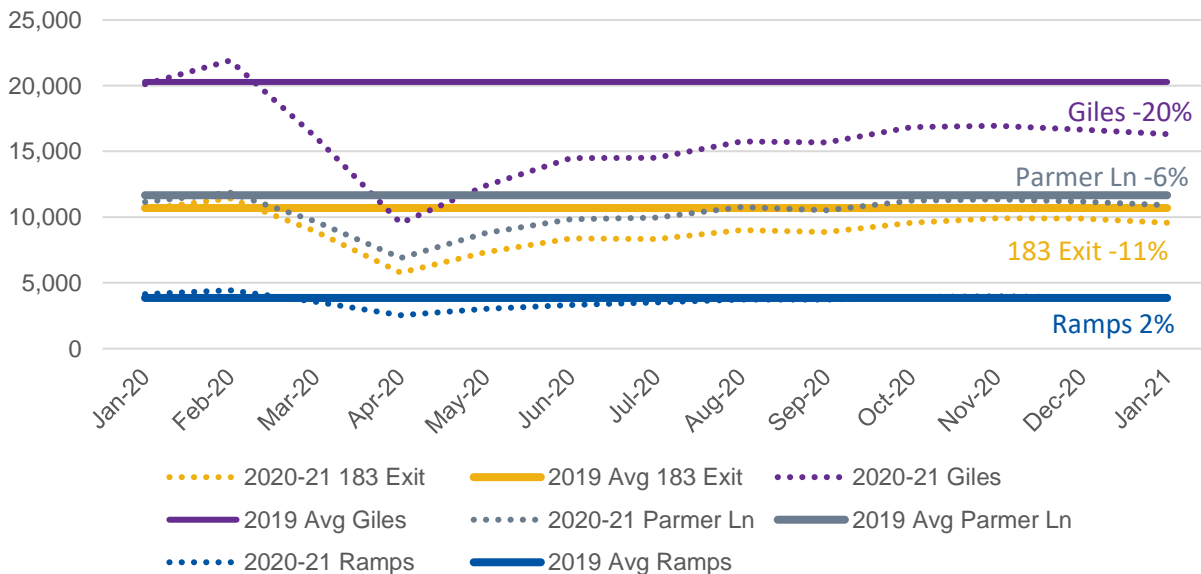


290E Mainline Recovery & Forecast Comparison

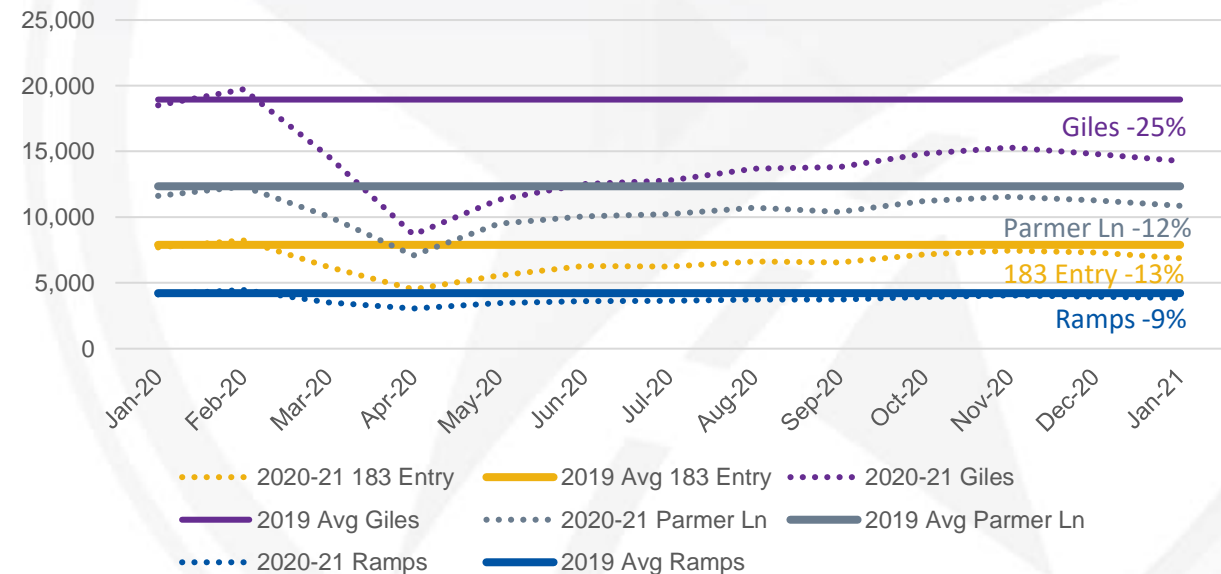
- January 2021 transactions compared to average 2019 levels
 - Giles ML transactions are 20-25% lower
 - Parmer ML transactions are 6-12% lower
 - US 183 direct connector transactions are 11-13% lower
 - WB Ramp transactions are 2% higher
 - EB Ramp transactions are 9% lower



WB Avg Weekday Transactions, Monthly



EB Avg Weekday Transactions, Monthly

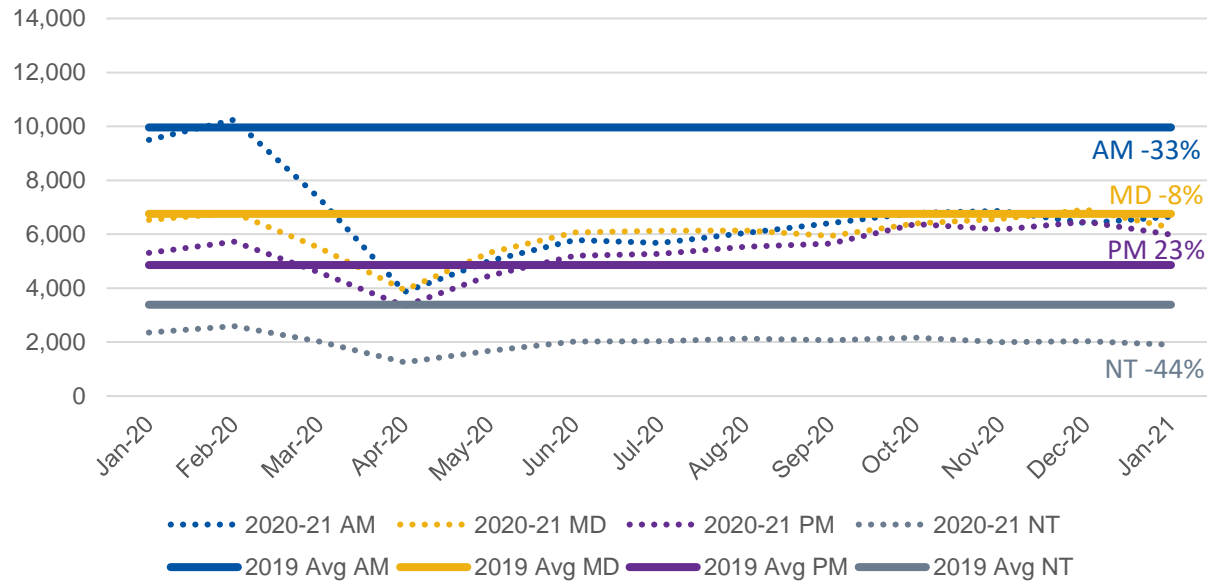




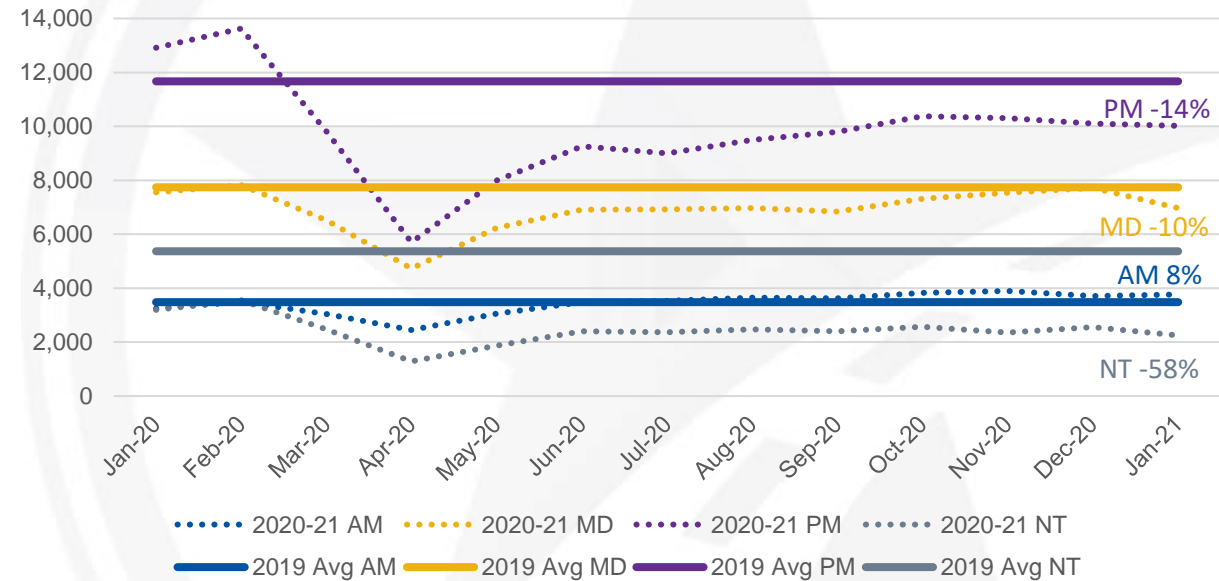
Time of Day Trends – 183A Lakeline ML Plaza

- January 2021 transactions compared to average 2019 levels
 - Southbound AM transactions are 33% lower
 - Northbound PM transactions are 14% lower
 - Midday transactions are 8% to 10% lower
 - Nighttime transactions are 44% to 58% lower

SB Avg Weekday Transactions by Time Period, Monthly



NB Avg Weekday Transactions by Time Period, Monthly

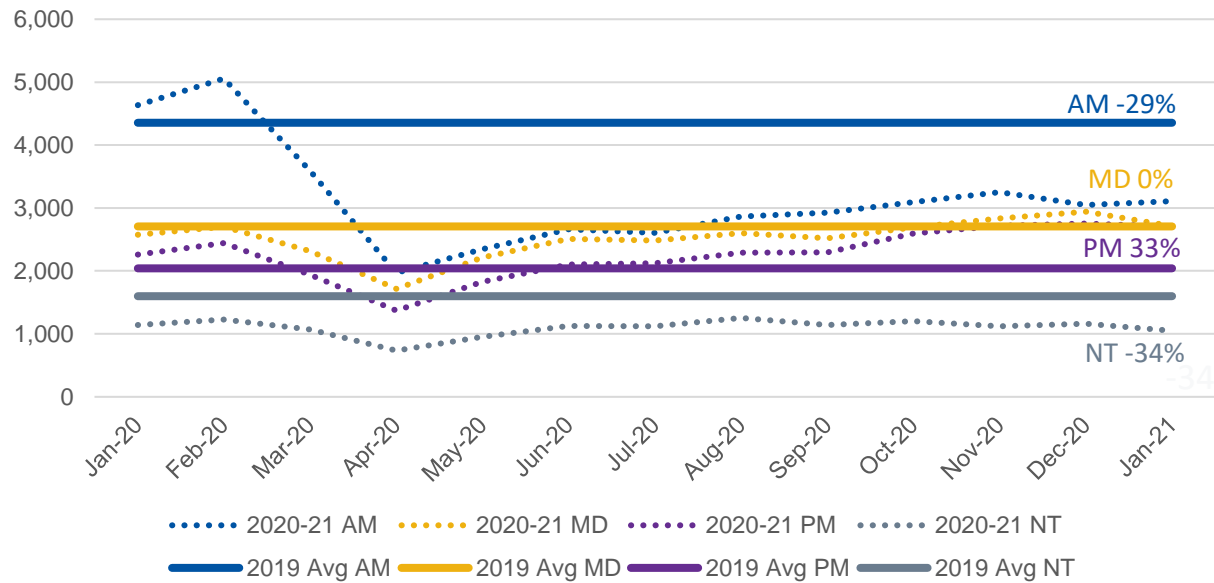




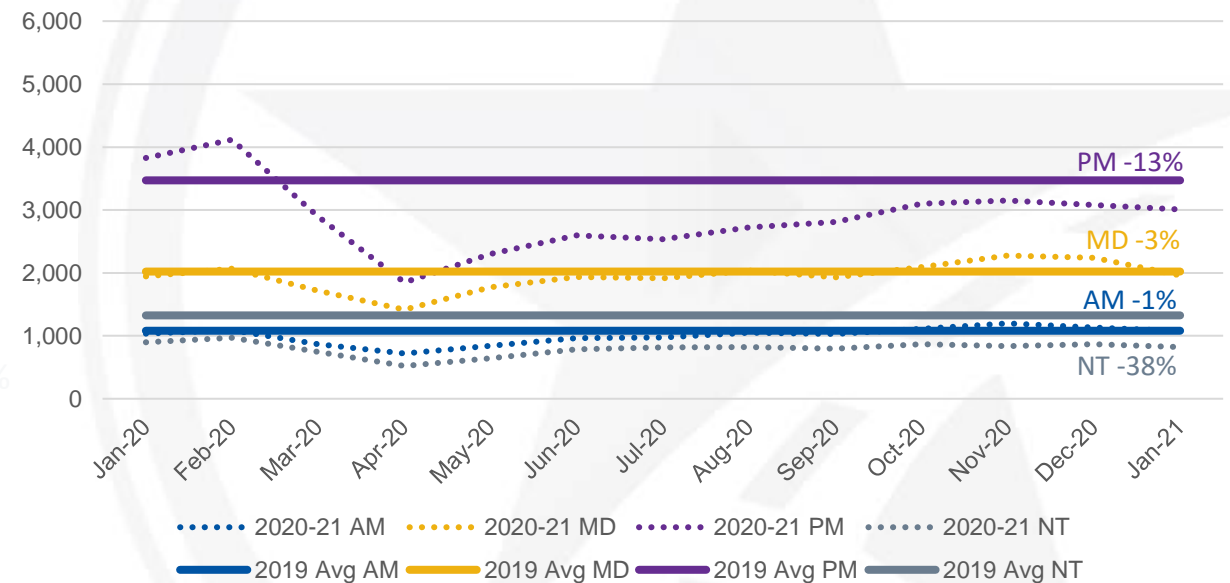
Time of Day Trends – 290E DCs to/from US 183

- January 2021 transactions compared to average 2019 levels
 - Westbound AM transactions are 29% lower
 - Eastbound PM transactions are 13% lower
 - Midday transactions are 0% to 3% lower
 - Nighttime transactions are 34% to 38% lower

WB Avg Weekday Transactions by Time Period, Monthly



EB Avg Weekday Transactions by Time Period, Monthly

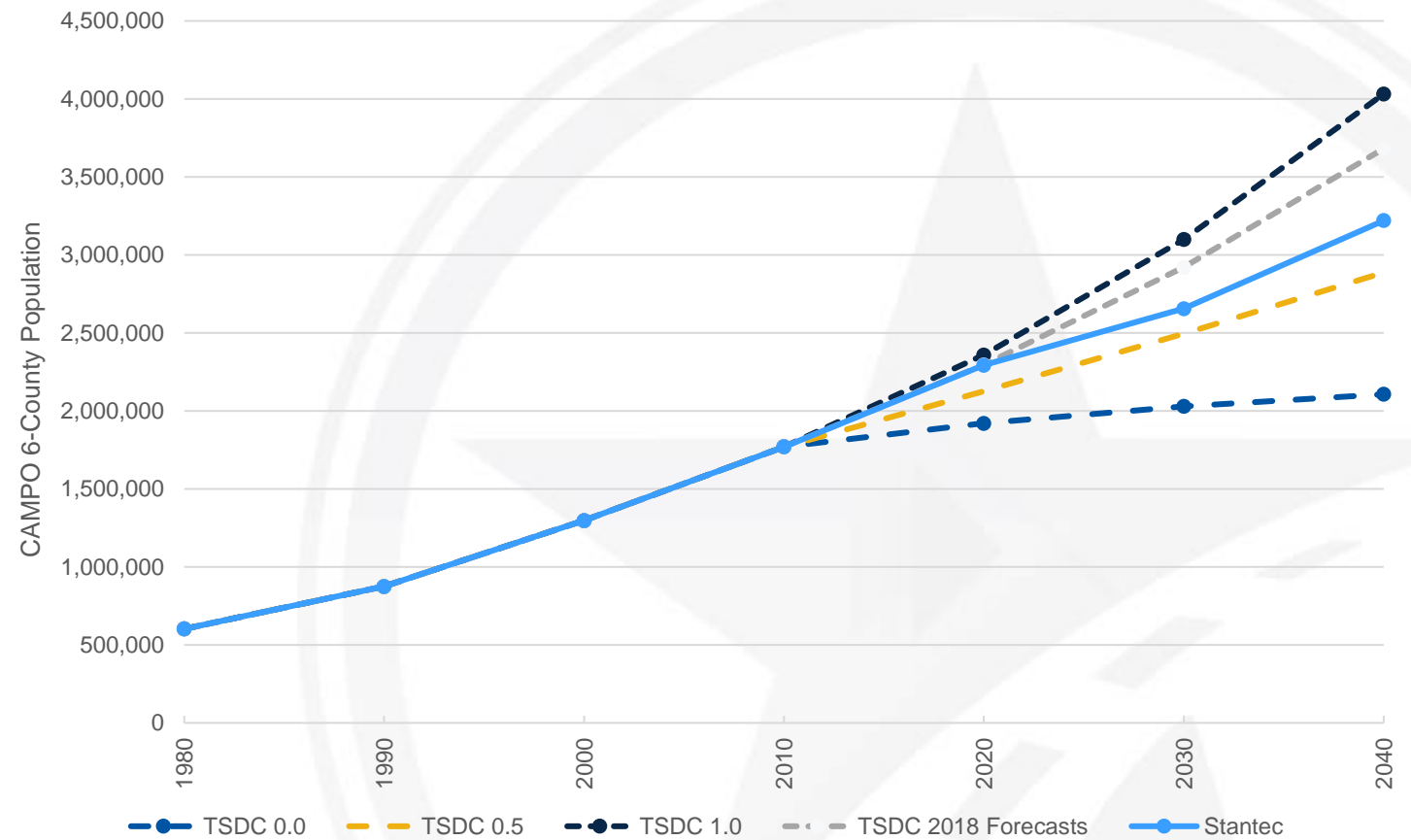




Migration Estimates

- » Texas State Data Center (TSDC) previously produced 3 migration scenarios
 - » High (1.0) based on 2000-2010 net migration rate
 - » Mid-level (0.5) reflects half the 1.0 rate
 - » Low (0.0) based on no migration
- » TSDC 2018 Forecast based on 2010-2015 net migration rate

Historical and Projected Population in CAMPO 6-County Area, 1980-2040



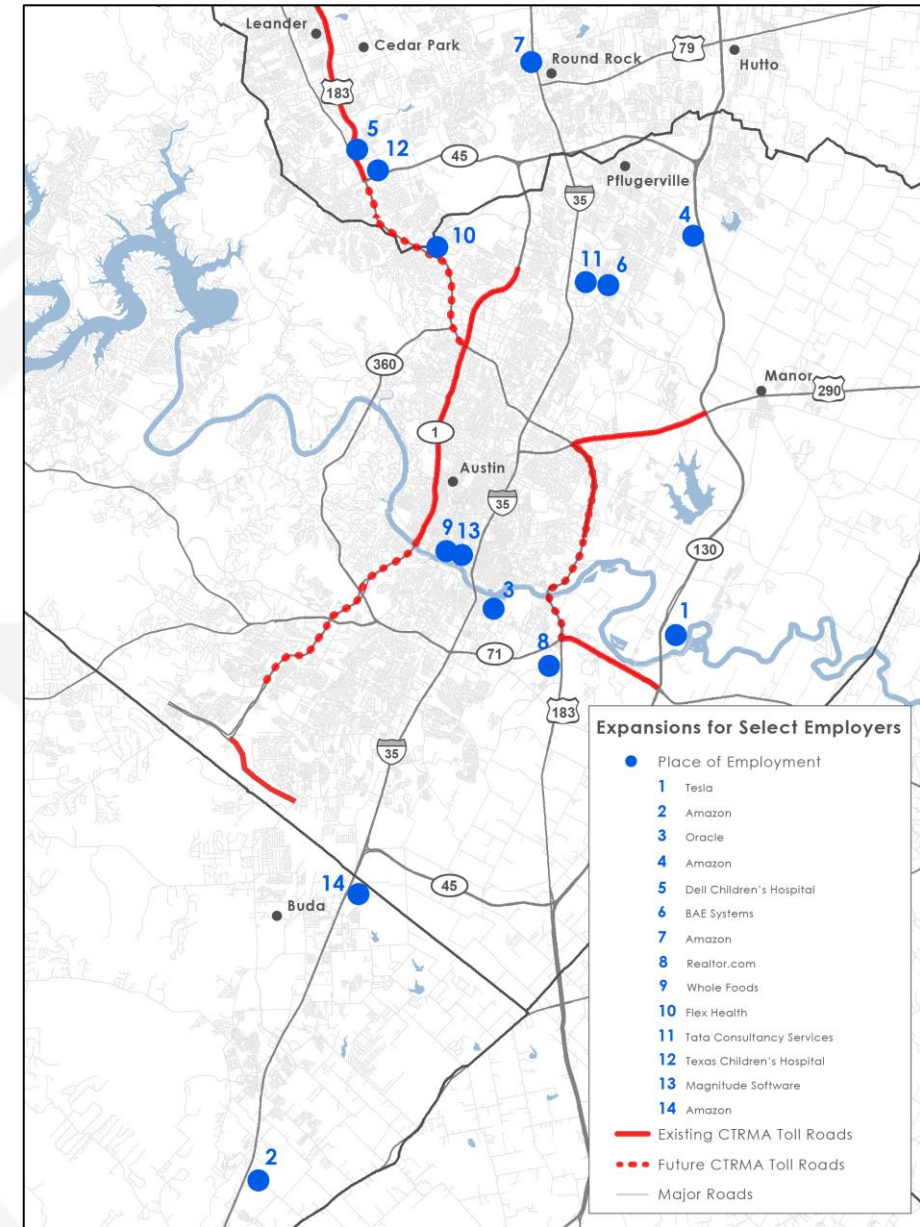
Source: U.S. Census Bureau, Texas State Data Center (2018), and Stantec (Bomba 2020).



New Employers, Relocations, Expansions

Select Major Employers in 2020

Map ID	Employer	Type of Operation	Announced Jobs
1	Tesla	Electric motor vehicle mfg.	5,000
2	Amazon	Fulfillment center	2,200
3	Oracle	Headquarters relocation	2,000
4	Amazon	Online retailer's distribution center	1,000
5	Dell Children's Hospital	Hospital, pediatric	740
6	BAE Systems	Defense & aerospace equipment mfg./R&D	700
7	Amazon	Online retailer's distribution center	650
8	Realtor.com	Headquarters relocation	600
9	Whole Foods	Headquarters expansion	600
10	Flex Health	Medical equipment contract mfg.	600
11	Tata Consultancy Services	IT services, digital & business solutions	400
12	Texas Children's Hospital	Hospital, pediatric	400
13	Magnitude Software	Enterprise information management software (Hdq.)	300
14	Amazon	Online retailer's distribution center	300
2020 Total Announced Relocations YTD			15,490

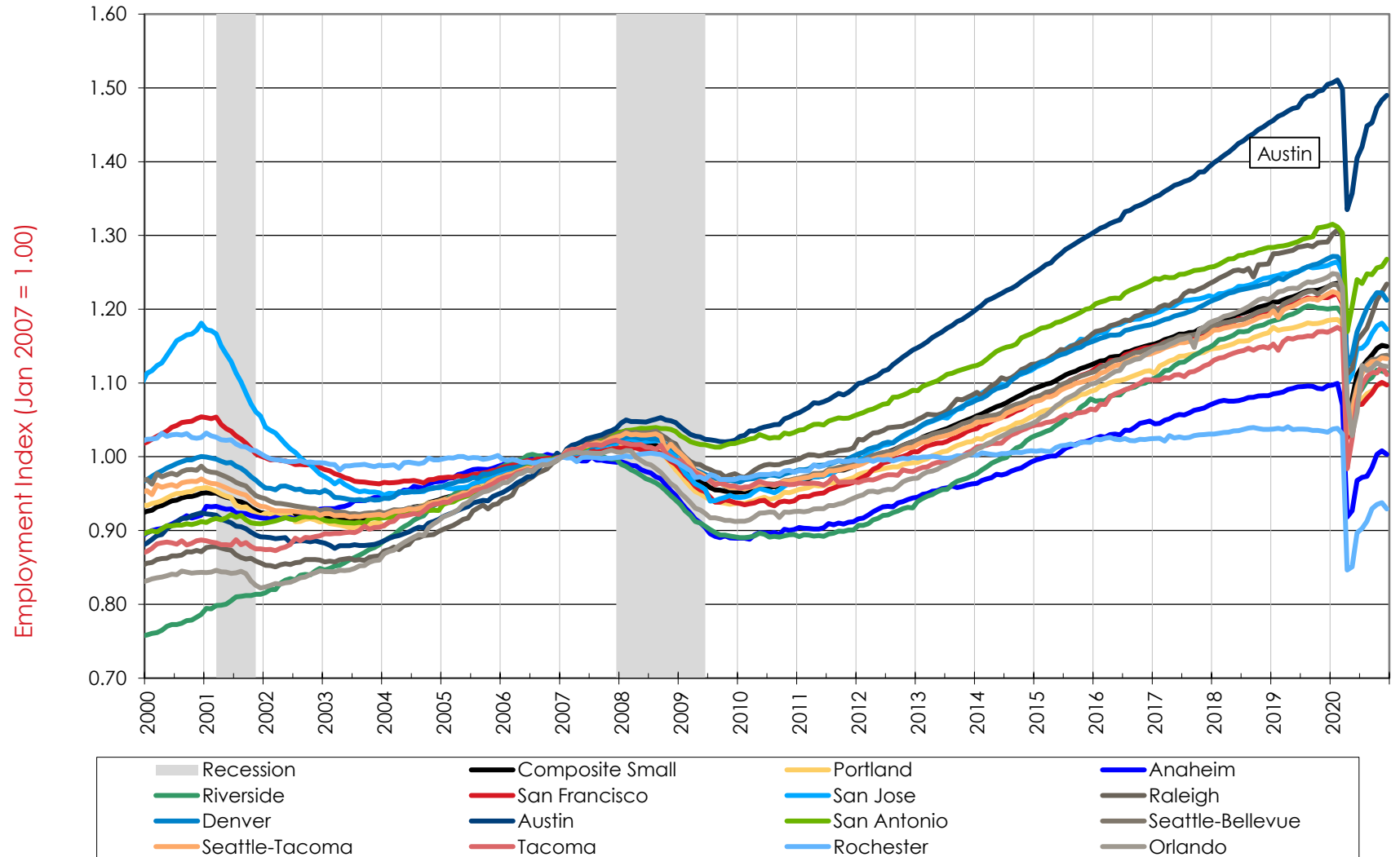




Historical Employment Comparison

» Austin metro area is nearly at pre-COVID-19 levels

Metro Area Employment, 2000 – Dec 2020: Small Metro Areas*

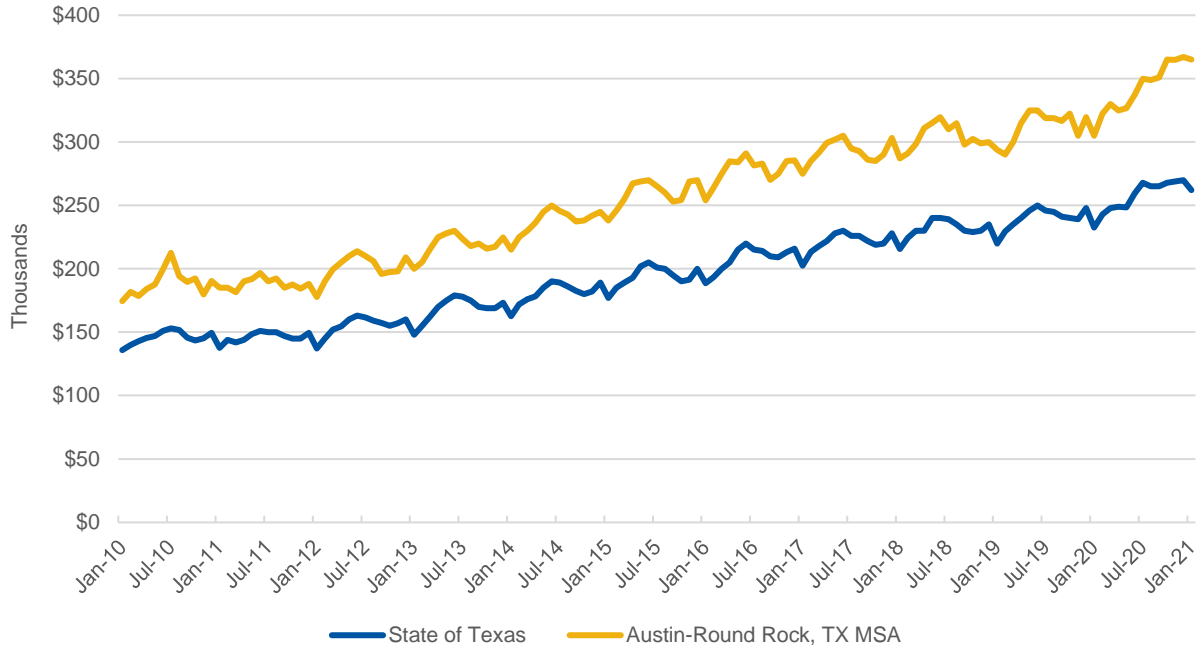


*Small Metro Area defined here as 2010 Census Population less than 5,000,000

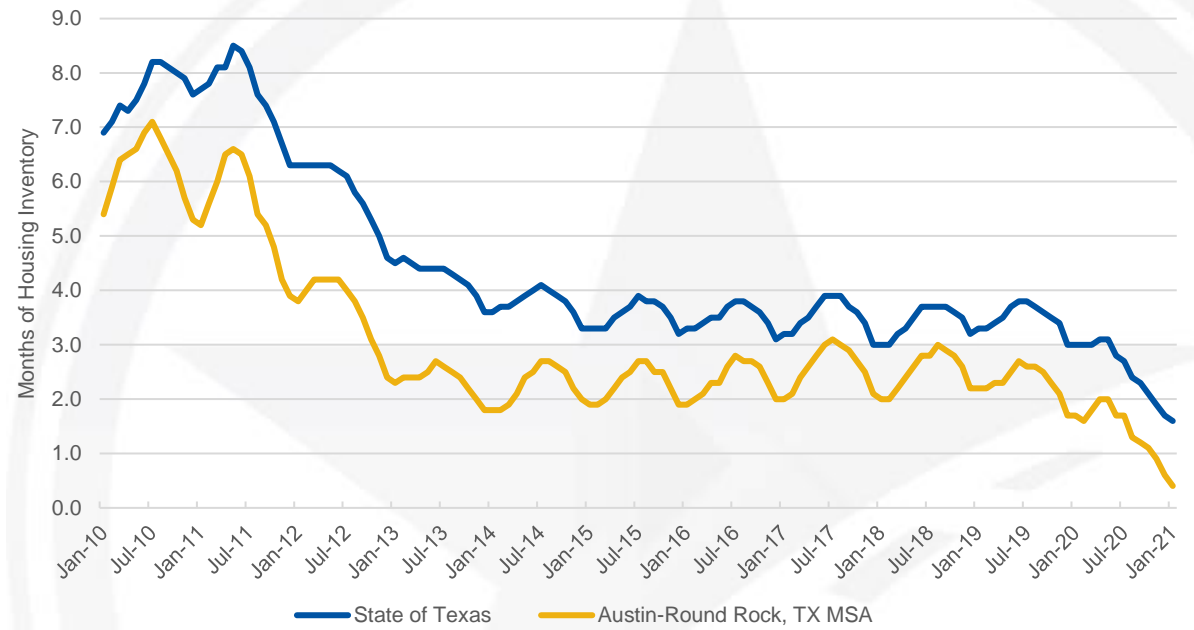


Residential Price & Inventory Trends

Median Home Price - January 2010 to January 2021



Months of Housing Inventory - January 2010 to January 2021





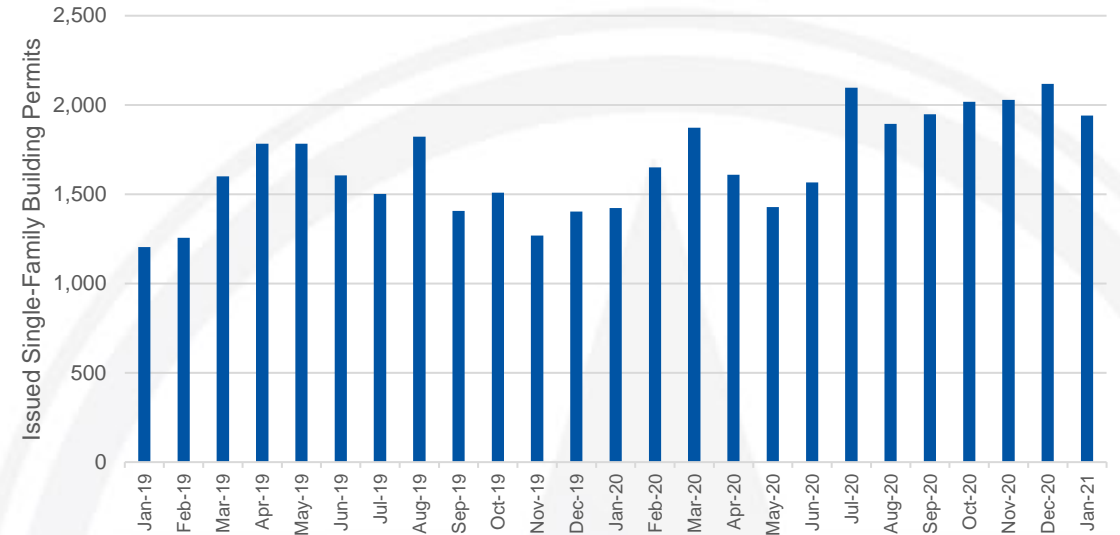
Single-Family Construction

- Since July 2020, roughly 2,000 single-family building permits issued monthly in the Austin, TX MSA
- Overall trend over the last two years has been upward, with 21,653 single-family building permits issued during 2020 compared to 18,145 permits during 2019

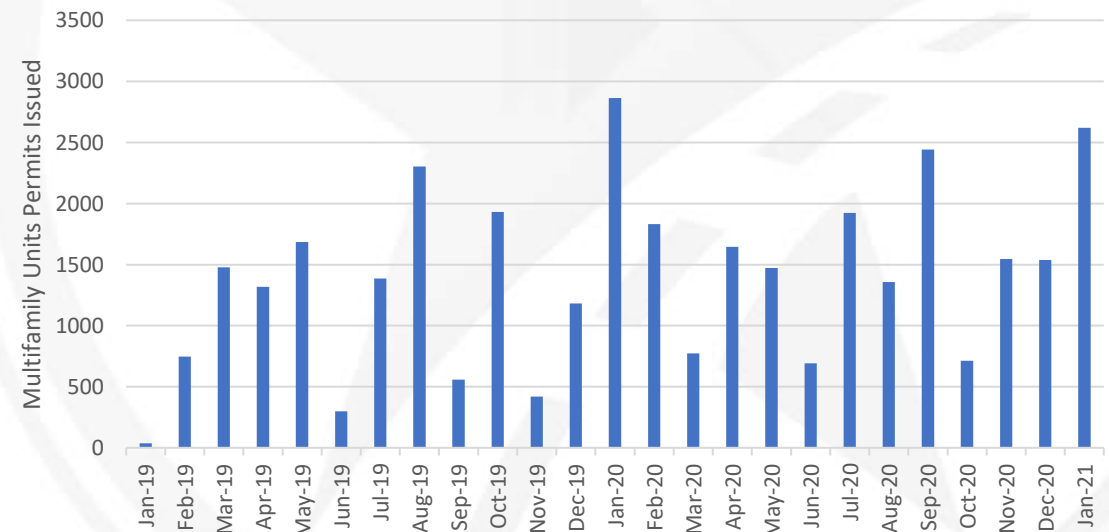
Multifamily Construction

- 18,799 multifamily units permitted in the Austin, TX MSA during 2020, up 40.9% from 2019 when 13,342 units were permitted
- On average, 1,567 multifamily units permitted each month during 2020, compared to 1,112 units during 2019

Single-Family Building Permits, Jan. 2019-Jan. 2021



Multifamily Building Permits Issued, Jan. 2019-Jan. 2021





Multifamily Market Development Trends

AUSTIN REGION MULTIFAMILY MARKET, Q4 2020

Submarket	No. of Units	12-Month Absorption	Vacancy
Bastrop County	1,064	10	8.3%
Buda-Kyle	5,334	298	14.6%
Caldwell County	413	3	7.1%
Cedar Park	12,029	894	12.8%
Central Austin	3,692	(227)	11.5%
Downtown Austin	4,713	76	8.0%
East Austin	11,215	88	16.7%
Far North Austin	1,069	(3)	4.1%
Far West Austin	103	(3)	15.9%
Georgetown-Leander	6,063	874	11.2%
Hill Country	785	297	20.9%
Lake Travis	3,498	66	3.9%
Midtown Austin	13,178	115	13.2%
North Austin	24,263	357	7.2%
Northeast Austin	7,824	245	10.9%
Northwest Austin	33,778	(334)	6.3%
Pflugerville	16,827	708	9.9%
Riverside	14,658	(100)	14.4%
Round Rock	15,048	297	6.0%
San Marcos	5,949	525	12.5%
South Austin	16,546	588	7.7%
South Central Austin	12,951	(230)	8.4%
Southeast Austin	8,121	663	9.0%
Southwest Austin	11,903	(96)	9.2%
West Austin	2,172	(25)	7.3%
AUSTIN MSA (TOTAL)	233,196	5,086	10.0%



AUSTIN REGION OFFICE MARKET, Q4 2020

Submarket	Inventory	YTD Net Absorption	Under Construction	YTD Leasing Activity	Total Occupancy
CBD	12,844,651	(296,295)	3,458,154	441,856	78.4%
Central & W. Central	5,692,616	(147,481)	454,085	436,463	87.8%
Cedar Park	1,307,149	96,619	224,769	133,887	87.3%
East	4,159,014	(193,768)	1,313,111	553,847	66.0%
Far Northwest	3,877,493	30,721	880,332	130,709	86.3%
North	8,101,724	(150,225)	41,486	147,251	87.7%
Northeast	3,387,479	(289,575)	86,300	392,948	66.8%
Northwest	14,513,395	(230,830)	0	518,770	76.0%
Round Rock & FNE	2,482,335	108,332	278,846	100,200	89.0%
South	3,317,335	(261,530)	583,106	151,464	78.9%
Southeast	3,240,559	208,795	49,090	149,107	88.8%
Southwest	11,851,374	(164,760)	322,885	734,410	86.3%
AUSTIN	74,775,124	(1,289,997)	8,063,164	3,890,912	81.3%

Q4 2020 Austin Office Marketwatch Transwestern, 2021.



AUSTIN REGION RETAIL MARKET, Q4 2020

Submarket	Inventory	YTD Net Absorption	YTD Leasing Activity	Total Occupancy
Central Business District (CBD)	1,541,396	(2,784)	6,782	97.1%
Central & West Central	7,267,038	(139,905)	78,903	93.4%
Cedar Park & Far Northwest	11,066,536	125,651	191,278	93.6%
East & Northeast	6,104,362	215,545	409,644	95.6%
Hays County	8,213,563	103,600	68,876	97.6%
North	6,755,643	43,473	119,405	96.8%
Northwest	4,805,819	(84,032)	45,831	95.8%
Round Rock & Far Northeast	10,566,509	(91,169)	160,055	93.6%
South & Southeast	12,187,370	233,125	147,316	96.2%
Southwest	7,709,880	41,697	94,643	96.4%
AUSTIN	76,218,116	445,201	1,322,733	95.4%

Q4 2020 Austin Retail, Transwestern, 2021.



AUSTIN REGION INDUSTRIAL MARKET, Q4 2020

Submarket	Inventory	YTD Net Absorption	Under Construction	YTD Leasing Activity	Total Occupancy
CBD & Central	693,113	(4,558)	0	30,382	90.2%
Cedar Park	2,543,500	154,903	36,000	172,054	87.2%
East	3,479,893	(16,594)	0	79,403	92.3%
Far Northwest	754,524	(39,350)	21,385	36,867	94.5%
Georgetown	3,215,320	257,448	846,262	225,609	84.6%
Hays County	8,,023,740	866,906	631,258	1,521,396	86.2%
North	12,085,394	(76,903)	0	1,446,545	93.4%
Northeast	9,191,457	411,989	97,550	618,782	93.6%
Northwest	1,498,964	60,136	0	165,902	94.9%
Round Rock & Far NE	9,369,015	930,059	4,794,720	1,491,015	89.7%
South	998,131	(53,025)	14,400	26,887	85.1%
Southeast	1,313,529	691,759	4,929,646	928,227	93.3%
Southwest	795,817	34,860	14,500	56,423	94.2%
AUSTIN	65,784,127	3,217,630	11,574,721	6,799,492	91.2%

Q4 2020 Austin Office Industrial, Transwestern, 2021.

Executive Director Board Report

- A. Draft FY 2022 Operating Budget
- B. Sales of 183 North Mobility Bonds

14A

William Chapman

Interim Executive Director and Chief Financial Officer

Executive Director Board Report

- A. Draft FY 2022 Operating Budget
- B. Sale of 183 North Mobility Bonds



14B

William Chapman
Interim Executive Director and Chief Financial Officer

Executive Session

Please remain seated and quiet while the Executive Session agenda is read into the record.

15. Discuss legal issues related to claims by or against the Mobility Authority; pending or contemplated litigation and any related settlement offers; or other matters as authorized by §551.071 (Consultation with Attorney).
16. 16. Discuss legal issues relating to procurement and financing of Mobility Authority transportation projects, as authorized by §551.071 (Consultation with Attorney).
17. 17. Discuss personnel matters as authorized by §551.074 (Personnel Matters).



#15-17

Bobby Jenkins
Chairman

Adjourn Meeting

18

Bobby Jenkins
Chairman

Regular Meeting of the Board of Directors



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

March 31, 2021

CONSENT AGENDA BACKUP MATERIALS



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

Regular Meeting of the Board of Directors



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

February 24, 2021