# TRANSPORTATION POLICY BOARD MEETING

Monday, October 15, 2018
Room 3.102, Joe C. Thompson Center, University of Texas Campus
Red River and Dean Keeton Streets, Austin, Texas
6:00 p.m.

## REVISED AGENDA

**WATCH CAMPO LIVE: www.campotexas.org/livestream**

1. Certification of Quorum – Quorum requirement is 11 members……Chair Will Conley

2. Public Comments
   *Comments are limited to topics not on the agenda but may directly or indirectly affect transportation in the CAMPO geographic area. Up to 10 individuals may sign up to speak – each of whom must contact the CAMPO office by 4:30 p.m., Monday, October 15, 2018.*

3. Chair Announcements ……Chair Will Conley

4. Report from the Technical Advisory Committee (TAC) Chair ……..… Mr. Ed Polasek
   *The Chair of the TAC will provide an overview of TAC discussion items and recommendations to the Transportation Policy Board.*

**EXECUTIVE SESSION:**

**Under Chapter 551 of the Texas Government Code, the Board may recess into a closed meeting (an executive session) to deliberate any item on this agenda if the Chairman announces the item will be deliberated in executive session and identifies the section or sections of Chapter 551 that authorize meeting in executive session. A final action, decision, or vote on a matter deliberated in executive session will be made only after the Board reconvenes in an open meeting.**

5. Executive Session ……. Chair Will Conley
   *The Transportation Policy Board will recess to an Executive Session, if necessary.*

**ACTION:**

**THE PUBLIC IS INVITED TO COMMENT ON ITEM 6 IN THE SECTION BELOW.**

6. Discussion and Approval of August 13, 2018 Meeting Summary
   .....Mr. Ashby Johnson, CAMPO
   *Mr. Johnson will present the August 13, 2018 meeting summary and request Transportation Policy Board approval.*

**INFORMATION:**

7. Update on Capital Metropolitan Transportation Authority Cap Remap
.....Mr. Randy Clarke, Capital Metro
*Mr. Clarke will update the Transportation Policy Board on Capital Metro's CAP Remap service change.*

8. Presentation on Regional Incident Management Study
.....Mr. Tom Fowler, Kimley-Horn & Associates
*Mr. Fowler will provide an update on CAMPO's Regional Incident Management Study.*

9. Update on Public Participation Plan (PPP) ……..….Ms. Doise Miers, CAMPO
*Ms. Miers will provide an overview of the updates to the draft PPP.*

10. Executive Director's Report on Transportation Planning Activities
    a. 2019 Transportation Policy Board Meeting Schedule
    b. FY 2018 Federal Transit Administration (FTA) Section 5310 Project Call
    c. Capital-Alamo Connection Study Joint MPO TAC Workshop
    d. High Speed Transportation Study
    e. CAMPO PARK(ing) Day 2018

11. Announcements
    a. Next Technical Advisory Committee Meeting – October 24, 2018
    b. Next Transportation Policy Board Meeting – December 10, 2018
    c. November 5, 2018 Transportation Policy Board Meeting - Canceled

12. Adjournment

**Capital Area Metropolitan Planning Organization**
**Transportation Policy Board**
**Meeting Summary**
**August 13, 2018**

**1. Certification of Quorum – Quorum requirement is 11 members …….….. Chair Will Conley**

The CAMPO Transportation Policy Board was called to order by the Chair at 6:02 p.m.

The roll was taken and a quorum was announced present.

| | Member | Representing | Member Attending | Alternate Attending |
|---|---|---|---|---|
| 1 | Will Conley, Chair | Affiliate Non-Voting Member | Y | |
| 2 | Steve Adler, Vice-Chair | Mayor, City of Austin | N | Council Member Ann Kitchen |
| 3 | Alison Alter | City of Austin, District 10 | Y | |
| 4 | Clara Beckett | Commissioner, Bastrop County | N | |
| 5 | Gerald Daugherty | Commissioner, Travis County | Y | |
| 6 | Sarah Eckhardt | Judge, Travis County | Y | |
| 7 | Jimmy Flannigan | City of Austin, District 6 | Y | |
| 8 | Victor Gonzales | Mayor, City of Pflugerville | Y | |
| 9 | Mark Jones | Commissioner, Hays County | N | Commissioner Cynthia Long |
| 10 | Ann Kitchen | City of Austin, District 5 | Y | |
| 11 | Cynthia Long | Commissioner, Williamson County | Y | |
| 12 | Terry McCoy, P.E. | TxDOT-Austin District | Y | |
| 13 | Terry Mitchell | Capital Metro Board Member | Y | |
| 14 | Craig Morgan | Mayor, City of Round Rock | N | |
| 15 | James Oakley | Judge, Burnet County | Y | |
| 16 | Dale Ross | Mayor, City of Georgetown | Y | |
| 17 | Brigid Shea | Commissioner, Travis County | Y | |
| 18 | Edward Theriot | Commissioner, Caldwell County | Y | |
| 19 | John Thomaides | Mayor, City of San Marcos | Y | |
| 20 | Jeffrey Travillion | Commissioner, Travis County | Y | |
| 21 | Corbin Van Arsdale | Mayor, City of Cedar Park | Y | |

**2. Public Comments**

The Chair recognized Mr. Roger Baker, who offered public comments on Long Range Transportation Planning Considerations.

The Chair also recognized the following individuals who provided public comment on the CAMPO 2040 Plan Administrative Amendment.

1. Ms. Beki Halpin, Fix 290 Coalition
2. Mr. Steve Beers, Save Barton Creek Association

The Chair later revised the order of the agenda to recognize remaining individuals signed up for public comments for remaining agenda items. The Chair recognized Agenda Item 12A CAMPO 2040 Plan Administrative Amendment as the next order of business and recognized Mr. Ashby Johnson, CAMPO Executive Director who opened the item for discussion.

Mr. Johnson reported that CAMPO received a request from the Texas Department of Transportation (TxDOT) Austin District to process an amendment to the existing CAMPO 2040 Plan to revise the wording in the current project description for the Y at Oak Hill Project. The revised wording was included in the meeting materials. Mr. Johnson noted that the current Transportation Improvement Program (TIP) has not been amended as a result of this request.

Mr. Johnson later reported that the Texas Transportation Commission will take action to approve the Y at Oak Hill Project in TxDOT's Unified Transportation Program (UTP) later this month. The Y at Oak Hill Project must be presented to the Transportation Policy Board for approval before an amendment is processed for inclusion into the TIP.

The Chair recognized Mr. Terry McCoy, TxDOT Austin District Engineer who offered comments for the Y at Oak Hill Project. Additional comments were offered by the Board.

Video of this item can be viewed at the following links: http://austintx.swagit.com/play/08152018-914/3/ and http://austintx.swagit.com/play/08152018-914/4/.

**3. Chair Announcements ..... Chair Will Conley**

There were no announcements.

**4. Report from the Technical Advisory Committee Chair ..... Mr. Ed Polasek, TAC Chair**

Mr. Ed Polasek reported that the Technical Advisory Committee (TAC) did not convene during the months of June and July. Mr. Polasek added that he and Mr. Ashby Johnson, CAMPO Executive Director have agreed that the TAC will only convene for action items and/or the discussion of specific plan elements as they move forward.

Mr. Polasek also reported that the TAC has met with CAMPO staff to discuss the Regional Arterials Plan and MoKan/Northeast Subregional Study. Mr. Polasek added that the TAC has also collaborated with CAMPO Staff and the Capital Area Council of Governments (CAPCOG), and the Travel Demand Management (TDM) Working Group on the upcoming TDM Workshop.

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/5/.

**5. Executive Session .....Chair Will Conley**

An Executive Session was not convened.

**6. Discussion and Approval of June 11, 2018 Meeting Summary**

There were no public comments on the June 11, 2018 meeting summary.

The Chair entertained a motion for approval of the June 11, 2018 meeting summary.

Council Member Alison Alter moved for approval of the meeting summary, as presented.

Commissioner Edward Theriot seconded the motion.

The motion prevailed unanimously.

Ayes: Council Member Alison Alter, Commissioner Gerald Daugherty, Judge Sarah Eckhardt, Council Member Jimmy Flannigan, Mayor Victor Gonzales, Council Member Ann Kitchen (Proxy for Mayor Steve Adler), Commissioner Cynthia Long (Proxy for Commissioner Mark Jones), Mr. Terry McCoy, Mr. Terry Mitchell, Judge James Oakley, Mayor Dale Ross, Commissioner Brigid Shea, Commissioner Edward Theriot, Mayor John Thomaides, Commissioner Jeffrey Travillion, and Mayor Corbin Van Arsdale

Nays: None

Abstain: None

Absent and Not Voting: Commissioner Clara Beckett and Mayor Craig Morgan

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/6/.

**7. Discussion and Approval of CAMPO Appointment to Capital Metro Board**

The Chair recognized the following individuals who provided public comment on the Discussion and Approval of CAMPO Appointment to the Capital Metro Board.

1. Ms. Mona Mehdy, Private Citizen
2. Ms. Zenobia Joseph, Private Citizen

The Chair later entertained a motion for approval of the reappointment of Mr. Terry Mitchell to the Capital Metro Board.

Mayor John Thomaides moved for approval of the reappointment of Mr. Terry Mitchell to the Capital Metro Board with accompanying Resolution 2018-8-7.

Commissioner Edward Theriot seconded the motion.

Following comments and detailed discussion by the Board, the Chair called the vote.

The motion prevailed unanimously.

Ayes: Council Member Alison Alter, Commissioner Gerald Daugherty, Judge Sarah Eckhardt, Council Member Jimmy Flannigan, Mayor Victor Gonzales, Council Member Ann Kitchen (Proxy for Mayor Steve Adler), Commissioner Cynthia Long (Proxy for Commissioner Mark Jones), Mr. Terry McCoy, Mr. Terry Mitchell, Judge James Oakley, Mayor Dale Ross, Commissioner Brigid Shea, Commissioner Edward Theriot, Mayor John Thomaides, Commissioner Jeffrey Travillion, and Mayor Corbin Van Arsdale

Nays: None

Abstain: None

Absent and Not Voting: Commissioner Clara Beckett, Mayor Victor Gonzales, and Mayor Craig Morgan

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/7/.

**8. Discussion and Approval of Amendment #1 to the CAMPO Procurement Policy**

There were no public comments for the approval of Amendment #1 to the CAMPO Procurement Policy.

The Chair recognized Ms. Theresa Hernandez, CAMPO Finance & Administration Manager, who provided a brief overview of Amendment #1 to the CAMPO Procurement Policy. Staff later recommended a language change in the added clause to read, "…the Executive Director of the MPO may, with the consent and approval of the MPO's Transportation Policy Board."

Judge James Oakley moved for approval of Amendment #1 to the CAMPO Procurement Policy with noted changes and accompanying Resolution 2018-8-8.

Commissioner Edward Theriot seconded the motion.

The motion prevailed unanimously.

Ayes: Council Member Alison Alter, Commissioner Gerald Daugherty, Judge Sarah Eckhardt, Council Member Jimmy Flannigan, Mayor Victor Gonzales, Council Member Ann Kitchen (Proxy for Mayor Steve Adler), Commissioner Cynthia Long (Proxy for Commissioner Mark Jones), Mr. Terry McCoy, Mr. Terry Mitchell, Judge James Oakley, Mayor Dale Ross, Commissioner Brigid Shea, Commissioner Edward Theriot, Mayor John Thomaides, Commissioner Jeffrey Travillion, and Mayor Corbin Van Arsdale

Nays: None

Abstain: None

Absent and Not Voting: Commissioner Clara Beckett, Mayor Victor Gonzales, and Mayor Craig Morgan

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/8/.

**9. Discussion and Approval of Resolution (2018-8-9) Amending the Unified Planning Work Program (UPWP)**

There were no public comments on discussion and approval of Resolution (2018-8-9) amending the UPWP.

The Chair recognized Ms. Theresa Hernandez, CAMPO Finance & Administration Manager, who provided a brief overview of amendments to the UPWP which would add Public Law (PL) funding for staff support, Surface Transportation Program Metro Mobility (STP MM) funding for studies, and the addition of a Cedar Park Transit Study.

Judge James Oakley moved for approval of Resolution (2018-8-9) amending the UPWP.

Commissioner Gerald Daugherty seconded the motion.

The motion prevailed unanimously.

Ayes: Council Member Alison Alter, Commissioner Gerald Daugherty, Judge Sarah Eckhardt, Council Member Jimmy Flannigan, Mayor Victor Gonzales, Council Member Ann Kitchen (Proxy for Mayor Steve Adler), Commissioner Cynthia Long (Proxy for Commissioner Mark Jones), Mr. Terry McCoy, Mr. Terry Mitchell, Judge James Oakley, Mayor Dale Ross, Commissioner Brigid Shea, Commissioner Edward Theriot, Mayor John Thomaides, Commissioner Jeffrey Travillion, and Mayor Corbin Van Arsdale

Nays: None

Abstain: None

Absent and Not Voting: Commissioner Clara Beckett, Mayor Victor Gonzales, and Mayor Craig Morgan

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/9/.

**10. Discussion of Draft CAMPO Code of Conduct for Transportation Policy Board Members**

The Chair provided opening remarks regarding the purpose of the CAMPO Code of Conduct for Transportation Policy Board Members prior to its presentation by Mr. Tim Tuggey, legal counsel for CAMPO.

Mr. Tuggey reported that he collaborated review of the draft document with his colleague, Mr. Tim Sorrells, Attorney and Counselor at Law who specializes in Ethics Law to ensure objectivity. Mr. Tuggey highlighted the following goals of the CAMPO Code of Conduct for Transportation Policy Board Members:

1. Ensure objectivity of Board members and Staff
2. Elaborate ethical obligations as Board members
3. Adopts Robert's Rules of Order.

Mr. Tuggey later initiated further discussion on Section V: Staff Relations, Article (b) of the CAMPO Code of Conduct for Transportation Policy Board Members which addresses the number of hours of accumulated staff time to perform any work requested by a CAMPO Board member (other than the Chairperson).

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/10/.

**11. Presentation of TxDOT Safety Initiatives**

Mr. John Nevares, TxDOT Assistant Director of Transportation Operations provided an overview of ongoing safety activities for the TxDOT Austin District. Mr. Nevares presented and discussed crash fatality data for the Austin region and the Texas Motor Vehicle Traffic Crash Facts for calendar year 2017.

Mr. Nevares later identified engineering, enforcement, and education as three (3) important aspects to addressing the region's safety challenges. Mr. Nevares also highlighted various programs currently implemented to increase road safety.

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/11/.

**12. Executive Director's Report on the Transportation Planning Activities**

**a. CAMPO 2040 Plan Administrative Amendment**

At the Chair's request, this item was included in Agenda Item #2 Public Comments.

Video of this item can be viewed at http://austintx.swagit.com/play/08152018-914/4/.

**b. Federal Highway Administration (FHWA) Workshop on Transportation Demand Management (TDM)**

Mr. Ashby Johnson reported that CAMPO will host a workshop on Transportation Demand Management on August 16, 2018 in the Central Transportation Regional Mobility Authority's Boardroom. Mr. Johnson added that FHWA staff and a consultant will teach the 1-day workshop.

**c. CAMPO Presentation to Metrostudy**

Mr. Ashby Johnson further reported that he was asked to give a presentation to Metrostudy, a large group of commercial and residential developers in the region. Mr. Johnson noted that it was an opportunity to better understand the development community and to forge partnerships in moving toward similar goals in becoming more transit, pedestrian, and fiscally friendly.

**d. Nomination for Executive Committee of the Transportation Research Board – National Academy of Sciences**

Mr. Ashby Johnson informed the Board that the Executive Director of the Transportation Research Board – National Academy of Sciences extended an invitation to him to serve on its Executive Committee.

Mr. Johnson also reported that FHWA released a notice for grant funding opportunities. CAMPO submitted an application for a Mega Regions grant opportunity for freight movement between the San Antonio and Austin region. Mr. Johnson noted that CAMPO would be notified in October if awarded the grant.

Video of items 12b, 12c, and 12d can be viewed at http://austintx.swagit.com/play/08152018-914/12/.

## 13. Announcements

There were no announcements.

## 14. Adjournment

The Transportation Policy Board Meeting adjourned at 7:47 p.m.

| | |
|---|---|
| **Date:** | October 15, 2018 |
| **Continued From:** | N/A |
| **Action Requested:** | Information |

| | |
|---|---|
| **To:** | Transportation Policy Board |
| **From:** | Mr. Randy Clarke, President and CEO, Capital Metro |
| **Agenda Item:** | 7 |
| **Subject:** | Update on Capital Metropolitan Transportation Authority Cap Remap |

## RECOMMENDATION

None. This item is for informational purposes only.

## PURPOSE AND EXECUTIVE SUMMARY

This item provides the Transportation Policy Board with a brief update on Capital Metro's Cap Remap service change and responds to recent comments regarding equity and Title VI. At the August 13, 2018 Transportation Policy Board meeting, a citizen offered raised concerns regarding Capital Metro and the implementation of the Cap Remap service changes, specifically Title VI issues and disparate treatment of low-income and minority communities. After further discussion at the dais, it was suggested that Capital Metro provide the Transportation Policy Board an update regarding Cap Remap.

The presentation accompanying this item addresses these issues, including a summary of the Federal Transit Administration's review of the matter. A copy of their letter is attached for reference, along with the full equity analysis that Capital Metro completed prior to implementation of Cap Remap.

## FINANCIAL IMPACT

Not applicable.

## SUPPORTING DOCUMENTS

Cap Remap Recap slide presentation.

# Title VI Equity Analysis - June 2018 Service Changes Final 11-09-17

June 2018 Service Changes

Capital Metropolitan Transportation Authority
Austin, Texas

November 2017

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## Appendix

# I. Executive Summary

The Capital Metropolitan Transportation Authority (Capital Metro) continues to evaluate closely all services throughout the system to ensure maximum efficiency of resources and the riders served. As part of the implementation of Connections 2025, Capital Metro is proposing major service changes effective June 2018.

Capital Metro is cognizant of Title VI of the Civil Rights Act of 1964, Section 601 that states:

> *"**No persons in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.**"*[1]

Capital Metro's responsibility is to guarantee that all transit service, and access to its facilities, are equitably distributed and provided without regard to race, color, or national origin. Capital Metro's goal is to also ensure equal opportunities to all individuals to participate in all local, sub regional and regional transit planning and decision-making processes.

Overall the proposed service changes will have a positive impact within the system because of the level of investment proposed to increase capacity through additional trips on existing services. Capital Metro believes that these proposals do not violate federal mandates. According to the Federal Department of Transportation's Circular 4702.1 B,

> "[Agencies] shall evaluate significant system-wide service and fare changes and proposed improvements at the planning and programming stages to determine whether these changes have a discriminatory impact."[2]

The proposed June 2018 service changes are in accordance with Capital Metro's Service Standards and represent an incremental step in implementing Connections 2025. Connections 2025 was a plan developed with significant input from the community, riders and members of the Board of Directors for Capital Metro to ensure maximum efficiency of the service provided to the public (in accordance with adopted Capital Metro Service Standards).

The goal of Connections 2025 is to create a more frequent, more reliable and better connected transit system, and the service changes proposed here would help accomplish that. If approved

[1] United States Department of Justice. (1964). Title VI of the Civil Rights Act of 1964. Web Site: https://www.justice.gov/crt
[2] Federal Transit Administration. (October 1, 2012). Title VI Requirements and Guidelines for FTA Recipients: C 4702.1B. Source: Federal Transit Administration Website: https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/title-vi-requirements-and-guidelines-federal-transit

by the Capital Metro board of directors in November, they would affect the whole system. In fact, more than half of the current 82 routes would see some level of change, with 38 remaining the same.

The proposed June 2018 changes would make for a simpler bus system that has more direct routes without many of the current system's confusing twists and turns through neighborhoods. They would also bring much more frequent service. While the plan proposes to eliminate 13 current routes, most riders would see similar and likely even better service replace their current experience.

The proposed changes have been going through a public engagement period between September and when the board votes on November 15. If approved, the changes would take effect Sunday, June 3, 2018.

This proposal is the result of extensive public input received since the fall of 2015 as part of the development of the Connections 2025 Transit Plan. In addition, we will provide further opportunities both in person and online for the public to learn about these proposed changes.

The proposed changes are added resource investments designed to increase ridership for the system. The general themes of the proposed changes are as follows:

**More Frequent**

•14 High-Frequency Routes

•Departures at least every 15 minutes

•7 days a week

**More Reliable**

•More direct routing

•Eliminates route deviations within neighborhoods

•Easier to understand system

**Better Connected**

•Routes designed to work as a system

•Decreased waiting time for your next bus

•Riders able to transfer with more confidence

These changes are intended to improve the overall customer experience and are in accordance with the FY 2018 budget and Connections 2025. The following evaluation focuses on changes where services will be modified and whether impacts may occur as follows:

- Assesses the effects of the proposed changes on minority and low-income populations.
- Assesses the alternatives available for people affected by these changes
- Determines which, if any of the proposals would have a disproportionately high effect on minority and low income riders
- Describes the actions Capital Metro will take to minimize, mitigate or offset any adverse effect of these changes on minority and low income riders

As outlined in the FTA Circular 4702.1B, transit agencies "can implement major service changes or reductions that would have disproportionately high and adverse impacts provided that the recipient demonstrates that the action meets a substantial need that is in the public interest and that alternatives would have more severe adverse effects than the preferred alternative.

# II. Proposed Changes by regions

**Central Core**

The major changes in the central core would focus on replacing Routes 21/22 with improved, more frequent service on similar corridors. That includes changing the routing and increasing frequency on Routes 17 and 18. Service between Lake Austin Blvd. and UT would remain via Route 663. New Route 335 would also be added to the High-Frequency Network and run every 15 minutes, seven days a week. The new Route 322 would take over the 21/22's routing east of IH-35 between the East Cesar Chavez and Cherrywood neighborhoods. Portions of Exposition formerly served by Routes 21/22 would be served by Frequent Routes 18 and 335.

**Downtown Austin**

The changes in downtown would focus service on three corridors to simplify routing and keep buses moving through the most congested part of Austin. All MetroRapid, MetroFlyer, MetroExpress and most Local routes would operate north-south in the transit-priority lanes on Guadalupe and Lavaca Streets between Cesar Chavez and 8th St. Routes serving the west side of the Capitol Complex and UT would continue along Guadalupe and Lavaca. Routes serving the east side of the Capitol would operate east-west on 7th and 8th Streets and north-south along Trinity and San Jacinto. There would no longer be service on Congress Ave., Red River St., parts of 11th and 12th Streets, and parts of 4th and 5th Streets east of Lavaca. Frequent Route 17 would be realigned to operate on Cesar Chavez and serve Seaholm. Route 100 would be eliminated and its service taken over by Frequent Route 20.

**Northeast Austin**

The most significant changes include increasing frequency on Route 37 to every 15 minutes during peak hours; converting it to a crosstown route serving schools and employment centers along Loyola Ln., Cameron Rd., Airport Blvd. and Koenig Ln.; and renumbering it to Route 337. Other changes include promoting Routes 18 and 20 to the High-Frequency Network, bringing Route 233 into Colony Park and replacing portions of Route 323 with Route 237. Frequent Route 300 would continue to operate on Springdale Rd. but would transition from Rogge Ln. and Berkman Dr. to 51st St. and Cameron. Some roads currently served by Route 323 would be served by the proposed Route 339, including Springdale north of 183, Tuscany Way, Exchange Dr., Forbes Dr., Cross Park Dr. and Centre Creek Dr.

**Central East Austin**

The major changes in Central East Austin would be adding Routes 2, 4, 17, 18 and 20 would to the High-Frequency Network, greatly improving east-west transit service. While Route 100 would go away and the 350 would no longer serve the airport, Frequent Route 20 would extend to ABIA. Route 271 would now serve FM 973 instead of frontage roads of toll road 130 and continue to serve Grove Blvd. Route 228 serving the Met Center and VA Clinic would begin at Pleasant Valley and Riverside Dr. instead of the South Congress Transit Center. Some portions of Ledesma Rd., Lott Ave., Prock Ln. and Sara Dr. (Route 2); Vargas Rd. (Route 4); and Burleson Rd., Todd Lane and St. Elmo Rd. (Route 228) would lose service.

**Southeast Austin**

Routes 20, 311 and 333 would see frequency improvements as part of the High-Frequency Network, providing 15-minute service, seven days a week. New Route 338 would connect Southeast Austin to Westgate Shopping Center via Slaughter Ln. and West Gate Blvd., and new Route 310 would provide connections between South Congress Transit Center and ACC Riverside. Route 228 service to the VA Clinic would connect to routes at Pleasant Valley and Riverside instead of the South Congress Transit Center. Route 331 would be combined with Frequent Route 300. Route 127 would be eliminated, with replacement service available on Frequent Route 7. Some portions of Peppertree Pkwy. and Freidrich Ln. (Route 7); Burleson Rd., Todd Ln. and St. Elmo Rd. (Route 228); as well as South Pleasant Valley and Onion Crossing (Route 333) would lose service.

**Southwest Austin**

Frequency would improve with Routes 10 and 333 joining the High-Frequency Network. New Route 105, traveling from UT to Westgate Shopping Center during the morning and evening rush hours, would replace the southern part of the current Route 5's service. The ACC Pinnacle campus would be served every 30 minutes by alternating trips on Route 333, as well as by new Route 315, which would travel along Ben White between the South Congress Transit Center and the Pinnacle campus. Route 30 would end at Westgate Shopping Center rather than the South Congress Transit Center. Route 110 would be eliminated, with replacement service available on Frequent Route 10. Route 970 would also be eliminated.

**Central North Austin**

Among the big changes in Central North Austin are rerouting portions of Routes 7 and 10 and introducing new east-west service. Route 10 would join the High-Frequency Network, operating between the Norwood Walmart, the Mueller neighborhood and UT via Cameron Rd., Mueller Blvd., 45th St. and Red River St. before heading downtown. Route 5 would run on Burnet Rd. and Lamar Blvd. to downtown, rather than traveling through UT. The new Route 345 would provide east-west service on 45th St. between Hancock Center and Burnet, and Frequent Route 7 would begin at Crestview Station rather than the Norwood Walmart. Service provided by the current Route 320 between Cameron and MoPac would be replaced by Route 337 (the renamed Route 37). Current Route 37 riders could access UT and downtown via Frequent Routes 10 and 20.

**North Austin**

The changes in North Austin would include Route 392 traveling between Tech Ridge and Braker/Burnet. The Great Hills area would be served by Route 383. Frequent Route 325 would operate from Tech Ridge to Metric Blvd. before traveling east-west on Rundberg Lane and ending at the Norwood Walmart. Route 1 would take over the current Route 275, staying on Lamar to the Tech Ridge Park & Ride instead of running on Rundberg and Metric. The new Route 324 would replace portions of the redirected Routes 10 and 325. Some parts of Rutland Dr., Gracy Farms Ln. and Cedar Bend Dr. on Route 240 would lose service.

**UT Shuttles**

There are very few changes to the UT Shuttle service. The primary change would be replacing Route 653 with Frequent Route 10, which would also provide a frequent connection between UT and the Mueller neighborhood. Changes to UT Shuttle service may include minor frequency changes as we match service to ridership levels.

# III. Public Involvement

Capital Metro asked for public comments and feedback from our community on these proposed significant changes to our transit system network. Throughout the planning process, the public had the opportunity to provide their feedback in a number of ways, including email: feedback@capmetro.org and Twitter: @CapMetroATX. The board of directors also heard public comments in September and October board meetings. In addition, there was a workshop in October that provided opportunities to board members as well as the public to understand the details of this complex proposal for service changes. Capital Metro also provided more opportunities for the public to share input at the following engagement events:

| Date & Time | Event type | Event & Location | Served by routes |
|---|---|---|---|
| Monday, Sept. 25, 5:30-7 p.m. | Public meeting | Howson Branch Library | 21, 22 |
| Tuesday, Sept. 26, 5:30-7 p.m. | Public meeting | Pleasant Hill Branch Library | 1, 201, 333, 801 |
| Wednesday, Sept. 27, 5:30-7 p.m. | Public meeting | Hampton Branch Library | 111, 333 |
| Thursday, Sept. 28, Noon. | Webinar | Registration | – |
| Monday, Oct. 2, 5:30-7 p.m. | Public meeting | Gus Garcia Recreation Center | 10, 325 |
| Monday, Oct. 2, Noon. | Webinar | Registration | – |
| Wednesday, Nov. 1, Noon - 12:30 p.m. | Public hearing | 2910 E. 5th St. | 17, 300 |
| Wednesday, Nov. 1, 5:30 p.m. - 6 p.m. | Public hearing | 2910 E. 5th St. | 17, 300 |

# IV. Definitions and Methodology

Before we dive into the details, it is necessary to clarify some technical terms, policies, and thresholds that are associated with the Title VI Service Change Equity Analysis. All major service changes will be subject to an equity analysis which includes an analysis of adverse effects on minority and low-income populations.

**Minority Populations**

Minority populations were considered according to the FTA circular guidelines and follow Capital Metro's approved 2015 Title VI reporting methodology. Groups represented by this definition include:

- *Black or African American*
- *American Indian and Alaska Native*
- *Asian*
- *Native Hawaiian and Other Pacific Islander*
- *Some other race*
- *Two or more Races*
- *Hispanic or Latino (of any race)*

**Low-Income Populations**

Low-income persons were considered according to the FTA circular guidelines but are refined to reflect Capital Metro's most recent reporting to the FTA. Thus, we have identified household incomes less than $29,999* as low-income. The threshold for this is set at 18% which is the reported percentage of Low-Income households for Travis County (of which over 95% of Capital Metro's Service Area encompasses).

**According to the Federal Transit Administration, low income is defined as, a person whose median household income is at or below the Department of Health and Human Services' poverty guidelines. Capital Metro's Planning has referenced poverty as 125% of the federal definition of poverty for a family of four. The poverty level for a family of four is $21,200 and if a 125% measure is applied, it would equate to a threshold of $26,500. However because Census Information is collected and reported in $10,000 increments, low income households are referenced when reporting less than $29,999.*

**Major Service Change Policy**

Capital Metro considers a service change as a "major service change" if it lasts more than twelve months and qualifies for a public hearing. The June 2018 change is in need of an equity analysis under Title VI. Service changes that require a public hearing are currently defined as:

- The elimination of an existing bus route; or
- The establishment of a new bus route; or
- A substantial geographical alteration on a given route of more than 25% of its route miles; or
- A major modification of a route which causes a 25% or greater change in the number of daily service hours provided by that route.

**Adverse Effect**

As mentioned in the Title VI Circular 4702.1B, the adverse effect can be measured by the change between the existing and proposed service levels that would be deemed significant. Changes in service that have an adverse effect and that may result in a disparate impact include reductions in service (e.g., elimination of route, shortlining a route, rerouting an existing route, increase in headways). Elimination of a route will generally have a greater adverse impact than a change in headways.

Service additions may also create an adverse effect on minority and low-income populations, especially if they come at the expense of reductions in service on other routes. Moreover, if the benefits of service additions are not distributed equitably, it may also create adverse effects on minority and low-income people. Capital Metro analyzes the degree of adverse effects when planning for any major service changes.

**+/-2 Threshold**

Under adopted policies consistent with Title VI, Capital Metro considers an adverse effect on minority or low-income population due to a major service change, when the difference between the average

minority or low-income population near the affected route and the average service area minority threshold (33%) or the average service area low-income threshold (18%) is greater than +/- 2.

**Disparate Impact**

Disparate Impact refers to an adverse effect absorbed by **minority** persons that is considered to be significantly disproportionate. The minority population is the protected class by Title VI. The Capital Metro threshold of any major service changes where an impact will be considered disparate on a minority population is +/-2 of 33%, which is the average minority population of the service area. For example, if route X is proposed to be eliminated and it has 36% minority population near the route (minority population of Census Block Groups within a quarter of a mile from either side of the route) then, this route elimination may have a disparate impact on minority populations. On the other hand, if this route X is a proposed new route, this would provide more benefit to the minority population and wouldn't have any disparate impact.

**Disproportionate Burden**

Disproportionate Burden refers to an adverse effect absorbed by **low-income** persons that is considered to be significantly disproportionate. The Capital Metro threshold of any major service change where an impact will be considered disproportionate on the low-income population is +/-2 of 18%, which is the average service area low-income population with incomes that fall below $29,999 for the household income. For example, if the route X (mentioned above) has 22% low-income population near the route (low-income population of Census Block Groups within a quarter of a mile from either side of the route, then, this route elimination may create a disproportionate burden on the low-income population. On the other hand, if this route X is a proposed new route, this would provide more benefit to the low-income population and wouldn't have any disproportionate burden.

**Data Source**

We used the 2010 census data to find minority population (total population minus non-Hispanic white) for this analysis. We used the Block Group (BG) level data as it is the preferred level to count minority population in close proximity to a route. However, the 2010 Census does not include the income data and it is only available through the American Community Survey (ACS). So, we used the latest 2015 ACS data to find low-income population surrounding routes. But, we were not able to use ACS data for minority population because it doesn't provide the racial breakdown needed for the analysis.

Using the Geographic Information Systems (GIS), we created a ¼ mile buffer on both sides of a route and captured the minority as well as low income population within the buffer area. Then, we identified the routes that didn't pass the test for Disparate Impact (33%) or Disproportionate Burden (18%). Based on the results of analysis, we identified 35 of 40 routes that were proposed for major service changes that may experience some kind of adverse effects. All of these potentially adverse effects are on the minority population where the average minority population of those routes are more than 35%. However, we have found no disproportionate burden on low-income populations for all eliminated and modified routes.

We applied the three basic steps "Avoid, Minimize, and Mitigate" to all routes that failed the test for Disparate Impact and Disproportionate Burden (DIDB). In order to complete the equity analysis, we considered all comments and suggestions gathered through public hearings, meetings, and other sources, and examined and analyzed the following elements before proposing a route for any major changes:

1. Identified minority block groups that are no longer served by the affected route

   (i.e., negative impact of route change)

2. Identified additional (new) minority block groups that are served by the affected route

   (i.e., positive impact of route change)

3. Identified mitigation route(s)

4. Identified ½ mile walk shed around eliminated, proposed, and mitigation routes.

# V. Data Analysis Results

The following discusses the results of the Title VI Equity Analysis on the proposed Capital Metropolitan Transportation Authority (Capital Metro) bus service changes associated with the Connections 2025 transit plan to be implemented in June 2018.

The proposed June 2018 service changes will implement most of the High-Frequency Network from the approved Connections 2025 transit plan. These changes will result in a large overhaul of Capital Metro's bus network, with only 38 of 82 routes remaining unchanged. In addition, thirteen routes are proposed to be eliminated.

**Table 1** provides the results of the equity analysis for the current bus routes with a greater than 25% change in geographic coverage or service characteristics that constitutes a major service change, the definition of which is required by FTA, and defined by Capital Metro; **Table 2** provides the results for current bus routes that are planned for elimination; and, **Table 3** provides results for new proposed bus routes planned for implementation in June 2018. In addition to the tabular results of the equity analysis, maps of each of the potential equity routes have been included in this memo that show the subject potential equity routes that require further mitigation analysis, followed by a discussion of mitigation is below each map, where necessary.

Each of the tables contain 13 columns providing various route and demographic data necessary to determine if the subject routes are potential equity routes. All population and race data is from the 2010 U.S. Census, while the low-income/poverty data is from the 2015 American Community Survey. The specific table headings are defined below:

- **Route Number** – These are the specific bus route numbers established by Capital Metro and included on all Capital Metro maps and schedules.
- **Route BGs Total Population** – This is the total population of all block groups located within a one-quarter mile buffer on either side of each subject bus route alignment.
- **Route BGs Minority Population** – This is a calculation subtracting the total non-Hispanic White population for all of the block groups from "Route BGs Total Population".
- **Route BGs % Minority** – This is a calculation dividing "Route BGs Minority Population" by "Route BGs Total Population".
- **Service Area Percent Minority** – This is used by Capital Metro as the baseline percentage to determine disparate impacts.
- **Route % Minority Minus Service Area % Minority** – This is a calculation subtracting the route percent minority from the service area percent minority to determine the delta.

If this is a positive number and is greater than two percent (i.e., the disparate impact threshold established in the Capital Metro policies) then a disparate impact has been identified.

- **Potential Minority Impact** – This is a "yes" or "no" answer based on if the "greater than two percent threshold" was reached; routes marked "yes" means those routes have been identified as potential equity routes.
- **Route BGs Poverty Households** – This is the total number of households within the poverty threshold established in the Capital Metro disproportionate impacts policy (125 percent of the Department of Health and Human Services 2015 poverty threshold) for all of the block groups located within a one-quarter mile buffer on either side of each subject bus route alignment.
- **Route BGs Total Households** – This is the total number households for all of the block groups located within a one-quarter mile buffer on either side of each subject bus route alignment.
- **Route BGs % Low Income** – This is a simple calculation dividing the number of "Route BGs Poverty Households" by the number of "Route BGs Total Households".
- **Service Area Percent Low Income** – This is the overall percentage of low-income households located within the Capital Metro Service Area and is used as the baseline percentage to determine disproportionate impacts.
- **Route % Low Income Minus Service Area % Income** – This is a calculation subtracting the route percent low-income from the service area percent low-income to determine the difference. If this is a positive number and is greater than two percent (the disproportionate impact threshold established in the Capital Metro policies) then a disproportionate impact has been identified.
- **Potential Low-Income Impact** – This is a "yes" or "no" answer based on if the "greater than two percent" threshold was reached; routes marked "yes" means those routes have been identified as potential equity routes.

The subject equity analysis conforms to Title VI of the Civil Rights Act of 1964 and Federal Transit Administration (FTA) Revised Title VI Circular 4702.1B as well as Capital Metro's Title VI Disparate and Disproportionate Impact Policies.

**Table 1** below shows the results for the specific bus routes that are planned for major changes as part of the implementation of the Connections 2025 service changes.

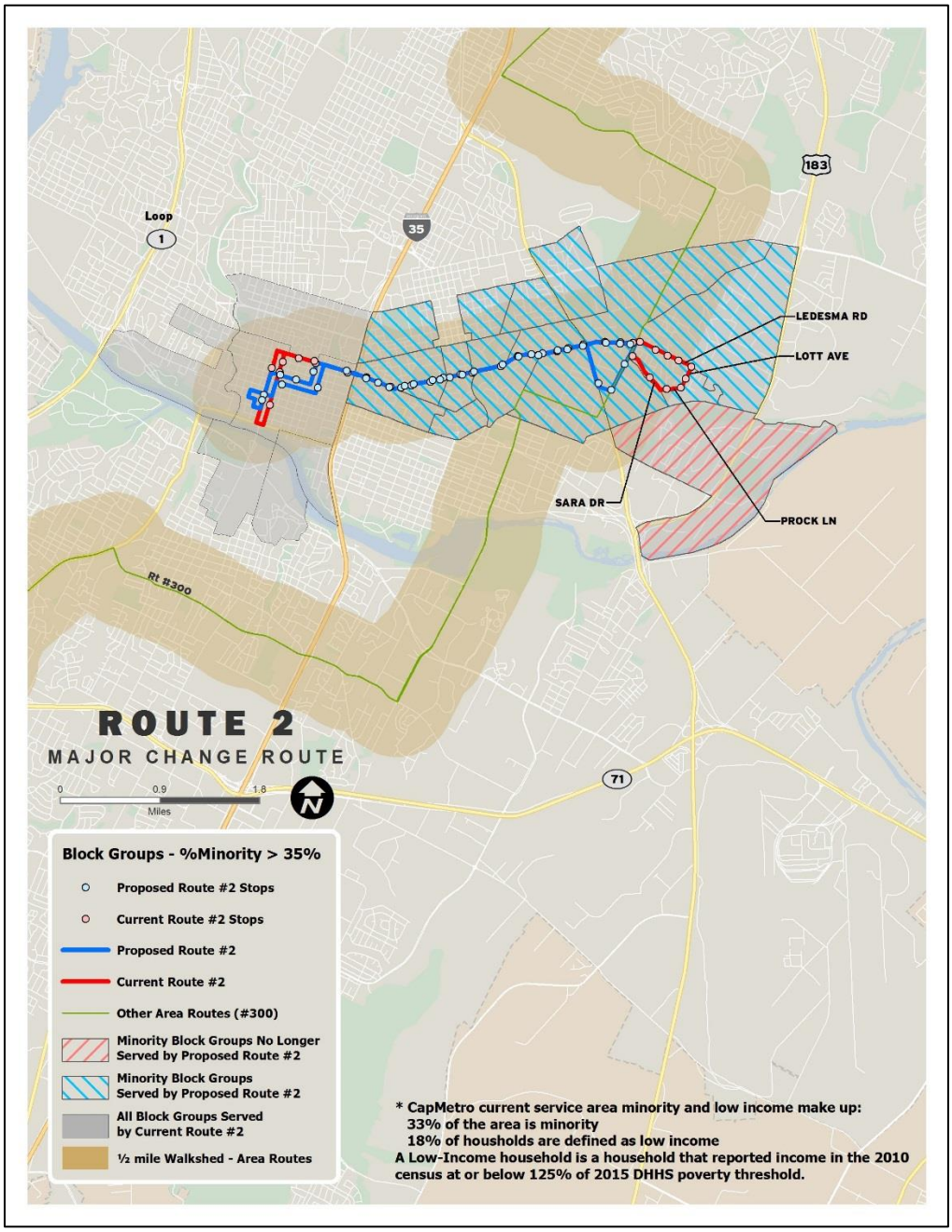
**Table 1: Equity Analysis Results of Current Bus Routes Proposed for Major Changes**

| Route Number | Route BGs Total Population | Route BGs Minority Population | Route BGs % Minority | Service Area % Minority | Route % Minority Minus Service Area % Minority | Potential Minority Impact | Route BGs Poverty Households | Route BGs Total Households | Route BGs % Low Income | Service Area % Low Income | Route % Low Income Minus Service Area % Income | Potential Low Income Impact |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 33,608 | 20,927 | 62.27 | 33 | 29.27 | Yes | 1,310 | 16,411 | 7.98 | 18 | -10.02 | No |
| 4 | 50,223 | 32,600 | 64.91 | 33 | 31.91 | Yes | 2,271 | 23,223 | 9.78 | 18 | -8.22 | No |
| 5 | 105,689 | 36,509 | 34.54 | 33 | 1.54 | No | 1,676 | 50,167 | 3.34 | 18 | -14.66 | No |
| 6 | 32,789 | 20,132 | 61.40 | 33 | 28.40 | Yes | 1,323 | 15,960 | 8.29 | 18 | -9.71 | No |
| 10 | 133,114 | 75,062 | 56.39 | 33 | 23.39 | Yes | 4,276 | 58,702 | 7.28 | 18 | -10.72 | No |
| 17 | 30,044 | 17,999 | 59.91 | 33 | 26.91 | Yes | 933 | 14,196 | 6.57 | 18 | -11.43 | No |
| 18 | 54,381 | 25,065 | 46.09 | 33 | 13.09 | Yes | 970 | 20,967 | 4.63 | 18 | -13.37 | No |
| 20 | 84,417 | 51,620 | 61.15 | 33 | 28.15 | Yes | 3,337 | 37,336 | 8.94 | 18 | -9.06 | No |
| 37 | 77,023 | 47,639 | 61.85 | 33 | 28.85 | Yes | 3,077 | 30,208 | 10.19 | 18 | -7.81 | No |
| 228 | 36,064 | 26,387 | 73.17 | 33 | 40.17 | Yes | 1,874 | 14,127 | 13.27 | 18 | -4.73 | No |
| 271 | 43,074 | 34,830 | 80.86 | 33 | 47.86 | Yes | 2,396 | 15,145 | 15.82 | 18 | -2.18 | No |
| 300 | 113,417 | 84,047 | 74.10 | 33 | 41.10 | Yes | 6,323 | 47,909 | 13.20 | 18 | -4.80 | No |
| 311 | 69,096 | 48,930 | 70.81 | 33 | 37.81 | Yes | 3,548 | 27,503 | 12.90 | 18 | -5.10 | No |
| 323 | 67,677 | 51,420 | 75.98 | 33 | 42.98 | Yes | 4,279 | 27,792 | 15.40 | 18 | -2.60 | No |
| 325 | 59,650 | 43,691 | 73.25 | 33 | 40.25 | Yes | 3,364 | 24,410 | 13.78 | 18 | -4.22 | No |
| 333 | 95,962 | 51,857 | 54.04 | 33 | 21.04 | Yes | 2,599 | 38,942 | 6.67 | 18 | -11.33 | No |
| 392 | 48,863 | 28,675 | 58.68 | 33 | 25.68 | Yes | 1,229 | 22,601 | 5.44 | 18 | -12.56 | No |
| 490 | 40,933 | 26,494 | 64.73 | 33 | 31.73 | Yes | 1,411 | 20,007 | 7.05 | 18 | -10.95 | No |
| 491 | 25,578 | 5,022 | 19.63 | 33 | -32.80 | No | 248 | 13,609 | 1.82 | 18 | -16.18 | No |
| 492 | 41,482 | 27,186 | 65.54 | 33 | 32.54 | Yes | 2,256 | 17,937 | 12.58 | 18 | -5.42 | No |

Source: HNTB, October 2017.

As shown in **Table 1**, there are 20 bus routes in the Connections 2025 service change plan that meet the "greater than 25 percent" change in geographic coverage or service characteristics threshold, meaning an equity analysis is required for all of those routes to determine potential disparate or disproportionate impacts to minority and low-income populations. Looking at the results presented in **Table 1**, of those 20 routes, 18 of the routes (those with red highlighted text) are considered "potential equity routes" meaning that the routes exceeded the "greater than two percent" threshold established in Capital Metro's disparate and disproportionate impacts policies. All 18 of the potential equity routes are considered such because of potential impacts to minorities as there are no low-income impacts that exceed the two percent threshold. For each of these potential equity routes specific mitigation is available, most commonly in the form of continued transit access from the proposed route and/or transit access from other existing or proposed bus routes within a one-half mile walk shed of the current bus route. Maps of each of the potential equity routes listed in **Table 1** are provided below and are followed by a mitigation discussion for each.

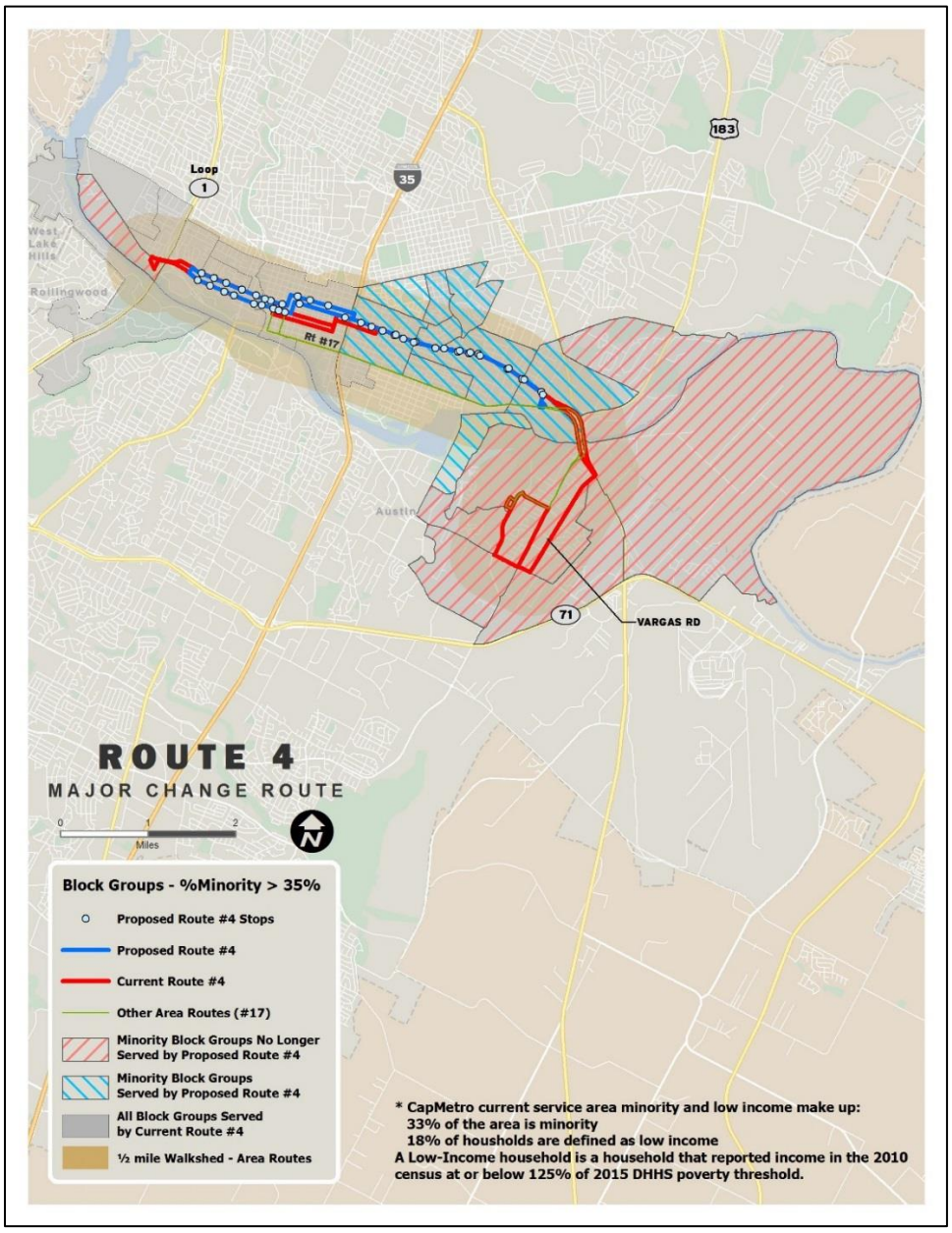
**Figure 1: Capital Metro Bus Route 2**




As shown in **Figure 1**, the proposed Route 2 would deviate from the current Route 2 on the east and west ends of the route. In terms of potential impacts to minority populations, there are 10 bus stops served by the current route that would no longer be served by the proposed route that are located within a minority block group. These stops are located on Ledesma Road, Lott Ave, Prock Lane, and Sara Drive. However, these eliminated stops are all located within a one-half

mile walk of the proposed Route 2 and the proposed Route 300, so frequent[3] bus transit service would be maintained to these areas, with both proposed Routes 2 and 300 serving as a viable mitigation route for these 10 eliminated stops. Additionally, frequency on the Route 2 would be increased from 20-30 minutes to 15 minutes, resulting in better access from a service characteristics standpoint on this proposed route.

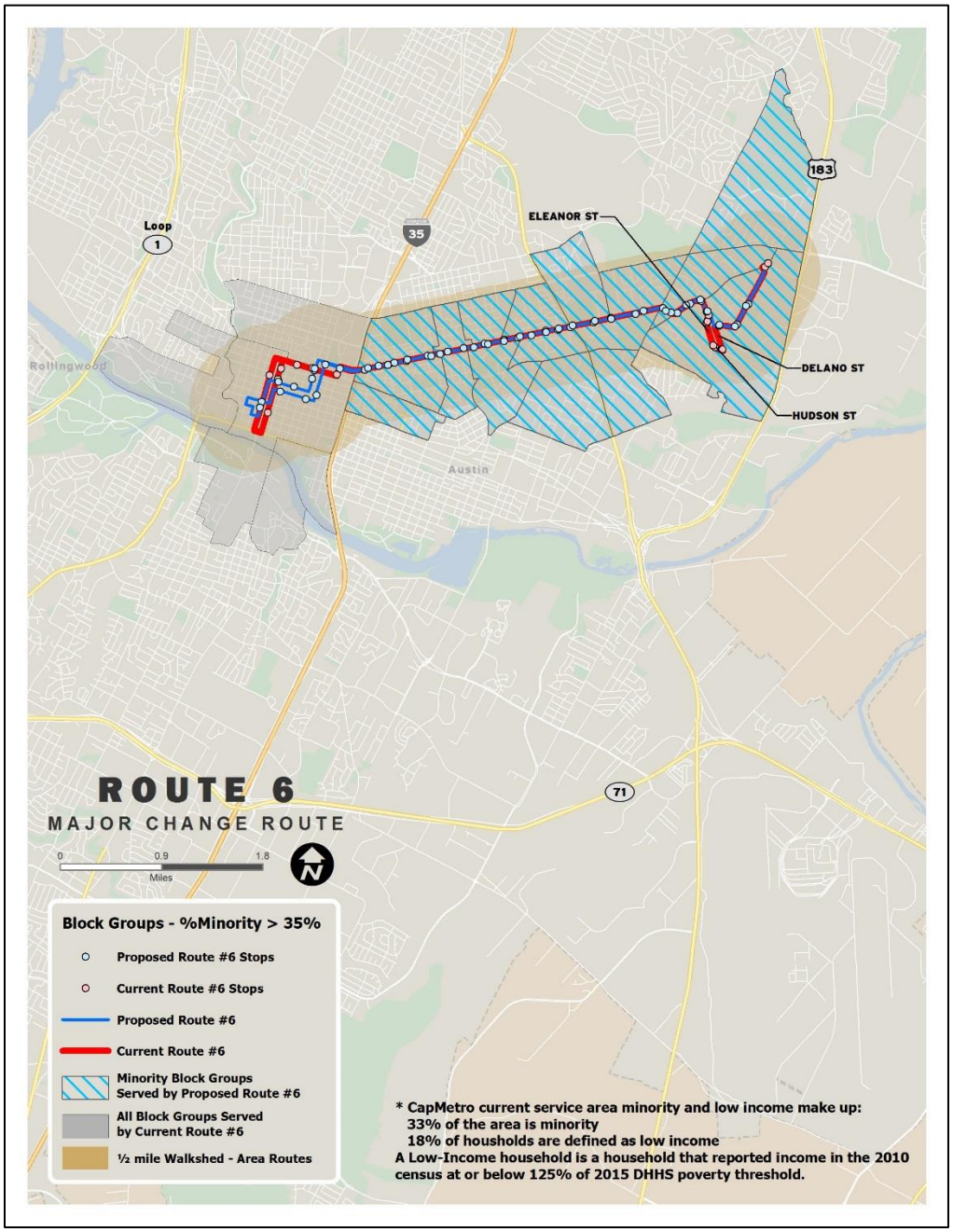
**Figure 2: Capital Metro Bus Route 4**




[3] Frequent or high-frequency service is service that operates at least every 15 minutes from 6:00 a.m. – 8:00 p.m. on weekdays and every 15 minutes from 7:00 a.m. to 8:00 a.m. on weekends

As shown in **Figure 2**, the proposed Route 4 would deviate from the current Route 4 predominantly by being truncated on both the east and west ends of the route, specifically along Vargas Road on the east and ending just before MoPac on the west. In terms of potential impacts to minority populations, there are ten minority block groups served by the current route that would no longer be served by the proposed route – nine of these minority block groups are located on the east end of the route and one is located on the west end. However, all ten minority block groups would be served by proposed frequent Route 17, with all of these minority block groups located within a one-half mile walk of the proposed frequent Route 17, so bus transit service would be maintained to these areas. Additionally, frequency on the Route 4 would be increased from 30 minutes to 15 minutes, resulting in better access from a service characteristics standpoint on this proposed route.

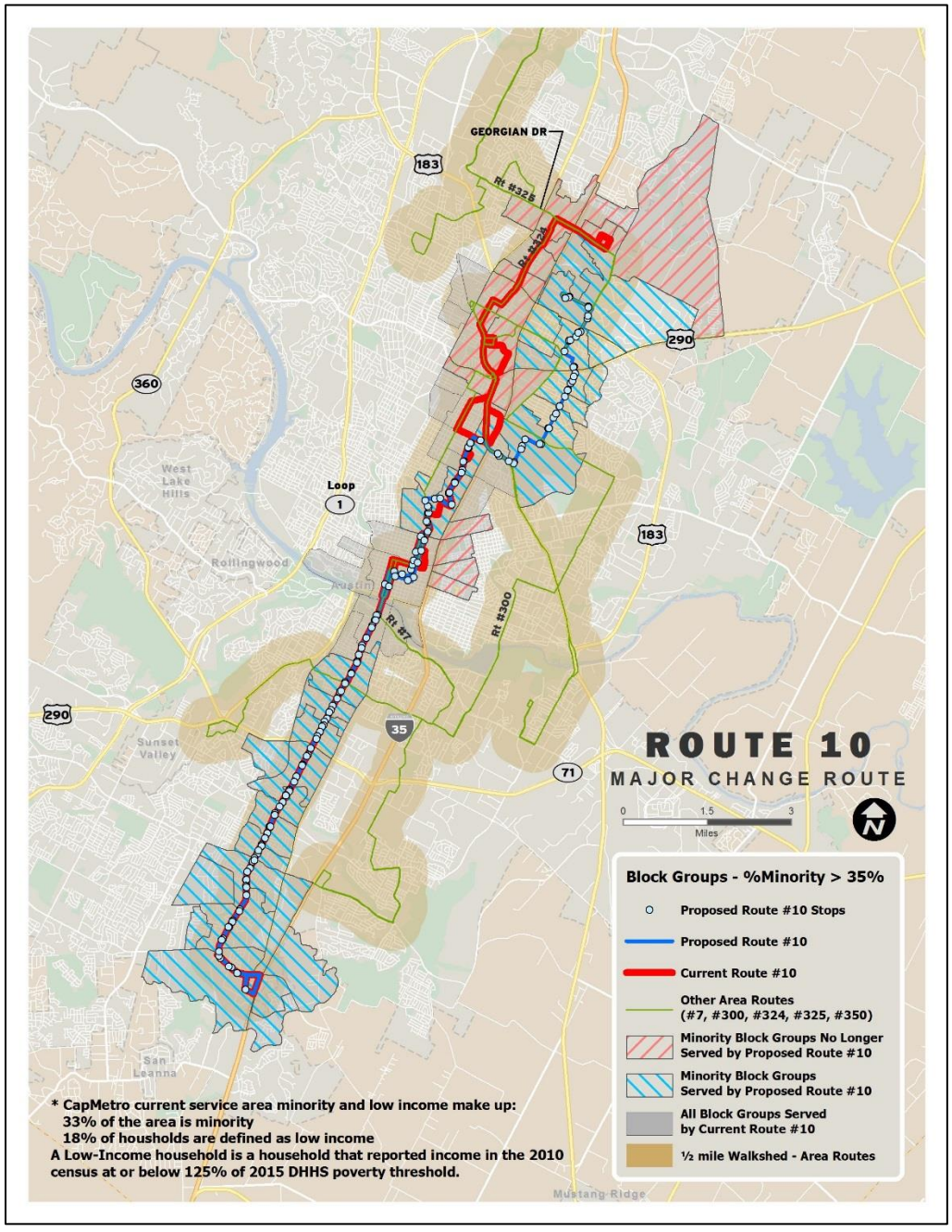
**Figure 3: Capital Metro Bus Route 6**




As shown in **Figure 3**, the proposed Route 6 would follow the same alignment as the current Route 6, with only minor deviations on the west end of the route in Downtown Austin and on the east end of the route. In terms of potential impacts to minority populations, there are three stops located in a minority block groups on the east end of the route at Eleanor, Hudson, and Delano Streets that are served by the current route that would no longer be served by the proposed route. However, these three stops would still be served by proposed Route 6 as all three stops are located within approximately one-quarter mile of the closest proposed Route 6 stops. Additionally, frequency on the Route 6 would be increased from every 40 to every 30

minutes resulting in better access from a service characteristics standpoint on this proposed route.

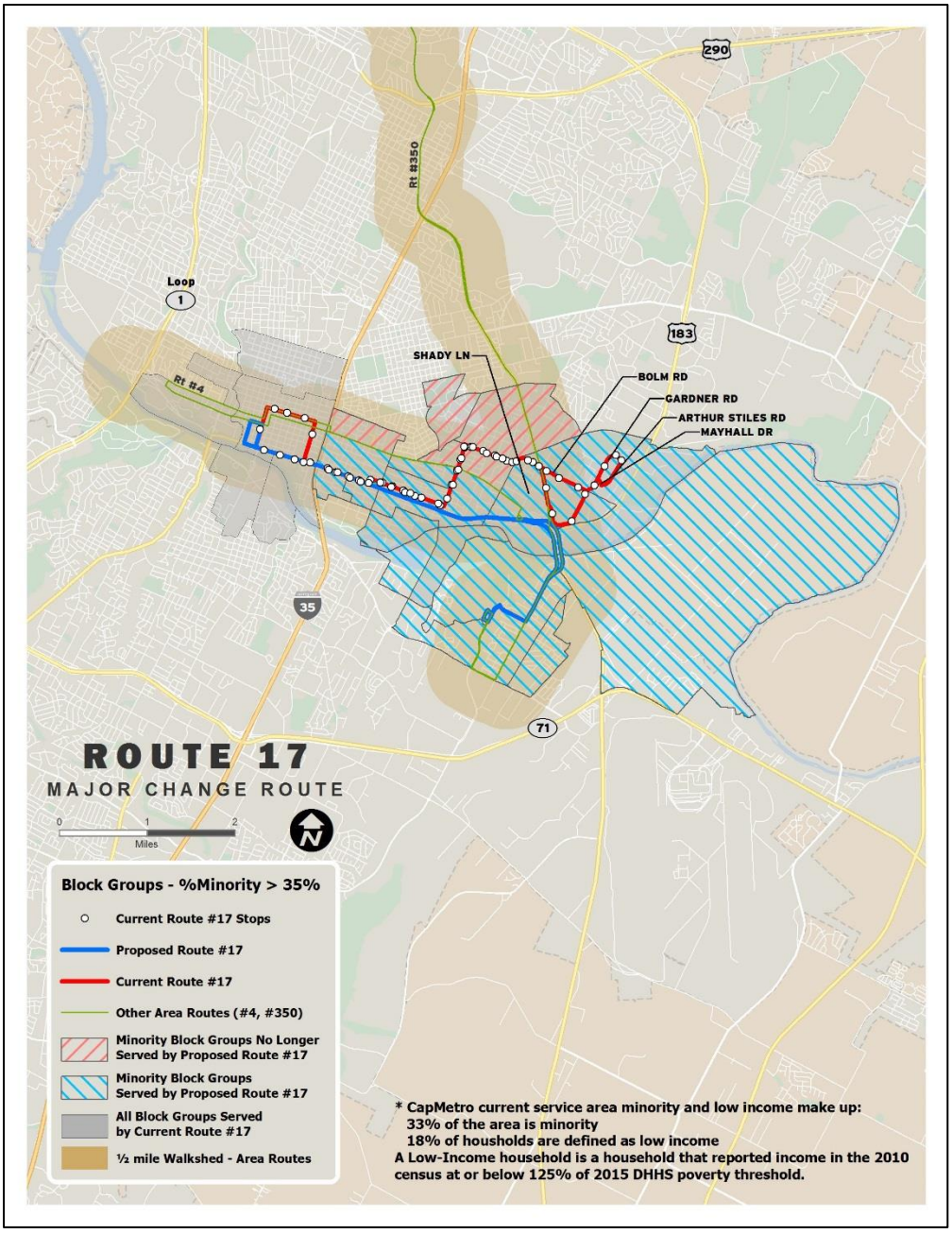
**Figure 4: Capital Metro Bus Route 10**




As shown in **Figure 4**, the proposed Route 10 would follow the current Route 10 alignment on the southern half of the route but would deviate from the current route on the northern half by shifting service to the east side of IH-35 from the west side of IH-35. In terms of potential impacts to minority populations, there are 22 minority block groups that are served by the current route that would no longer be served by the proposed route. However, 16 of the 20

block groups would be served directly by the proposed new service Route 324 on Georgian Drive and the remaining four minority block groups located at the far northeast end of the route would be served by proposed frequent Route 325. Moreover, 15 additional minority block groups would be accessed by the proposed Route 10 on the east side of IH-35 that are not served by the current Route 10. Additionally, service frequency would increase from every 30 minutes to every 15 minutes along proposed Route 10, resulting in better access from a service characteristics standpoint on this proposed route.

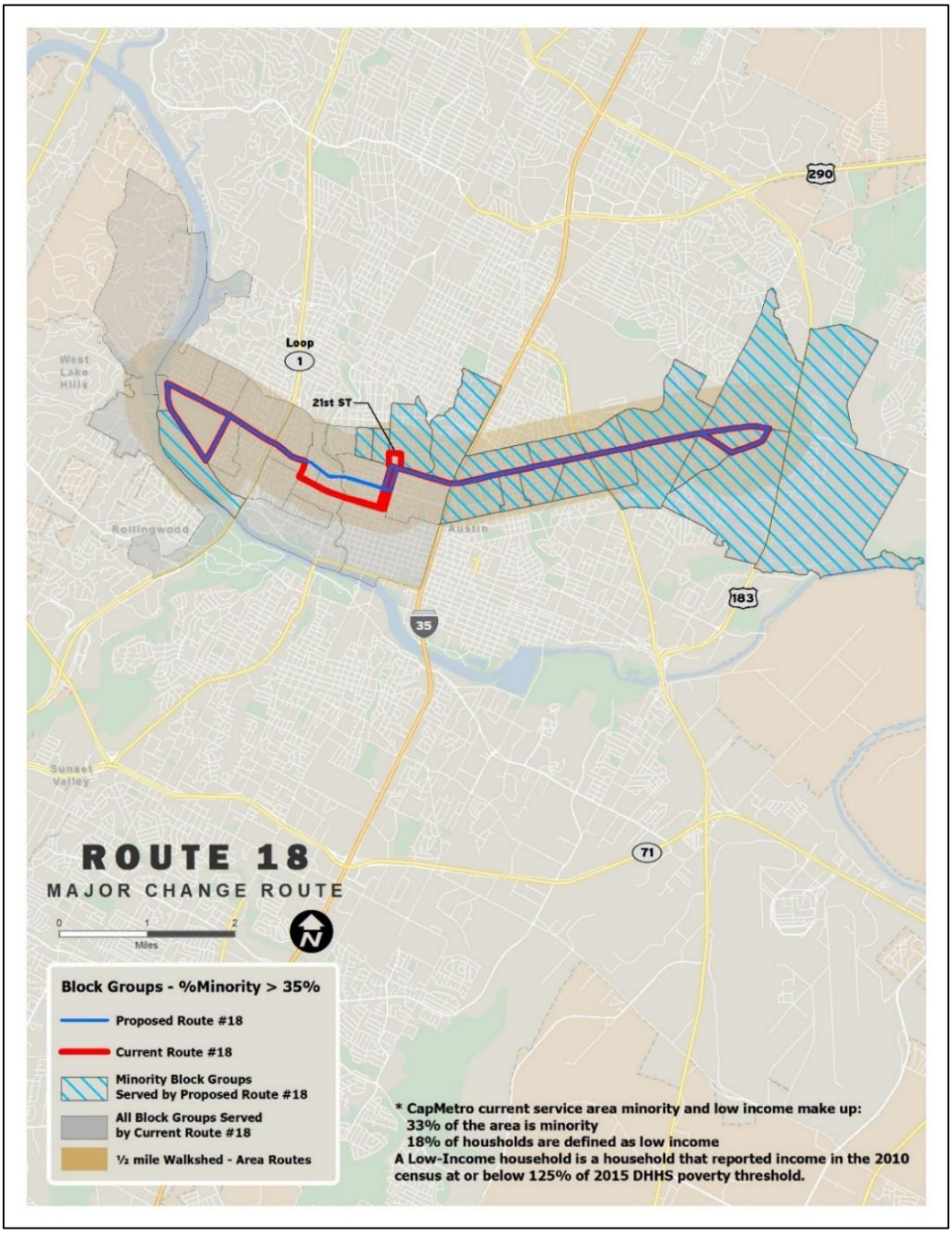
**Figure 5: Capital Metro Bus Route 17**



As shown in **Figure 5**, the proposed Route 17 would deviate from the current Route 17 by shifting service further south on the east and west ends of the route. In terms of potential impacts to minority populations, there are five minority block groups that are served by the current route that would no longer be served by the proposed route. However, these block groups are located within a one-half mile walk of proposed Route 4 and existing Route 350, so bus service would still be accessible to people living within these block groups. Additionally, service frequency would increase from every 30 minutes to every 15 minutes along proposed Route 4, resulting in better access from a service characteristics standpoint on this proposed route.

In addition to the two minority block groups discussed above, there are four bus stops along Gardner, Lotus, and Arthur Stiles served by the current route on the east end of the alignment that would no longer be served by the proposed route that are located within a minority block group. While the proposed Route 17 would still serve this block group, these four existing bus stops that would be eliminated are located more than a one-half mile walk from the proposed Route 17 and the existing Route 350. There is an average of 43 weekday boardings at these stops. A proposed school trip to Eastside Memorial College Prep H.S. on Route 4 would serve approximately 15 of these weekday boardings.

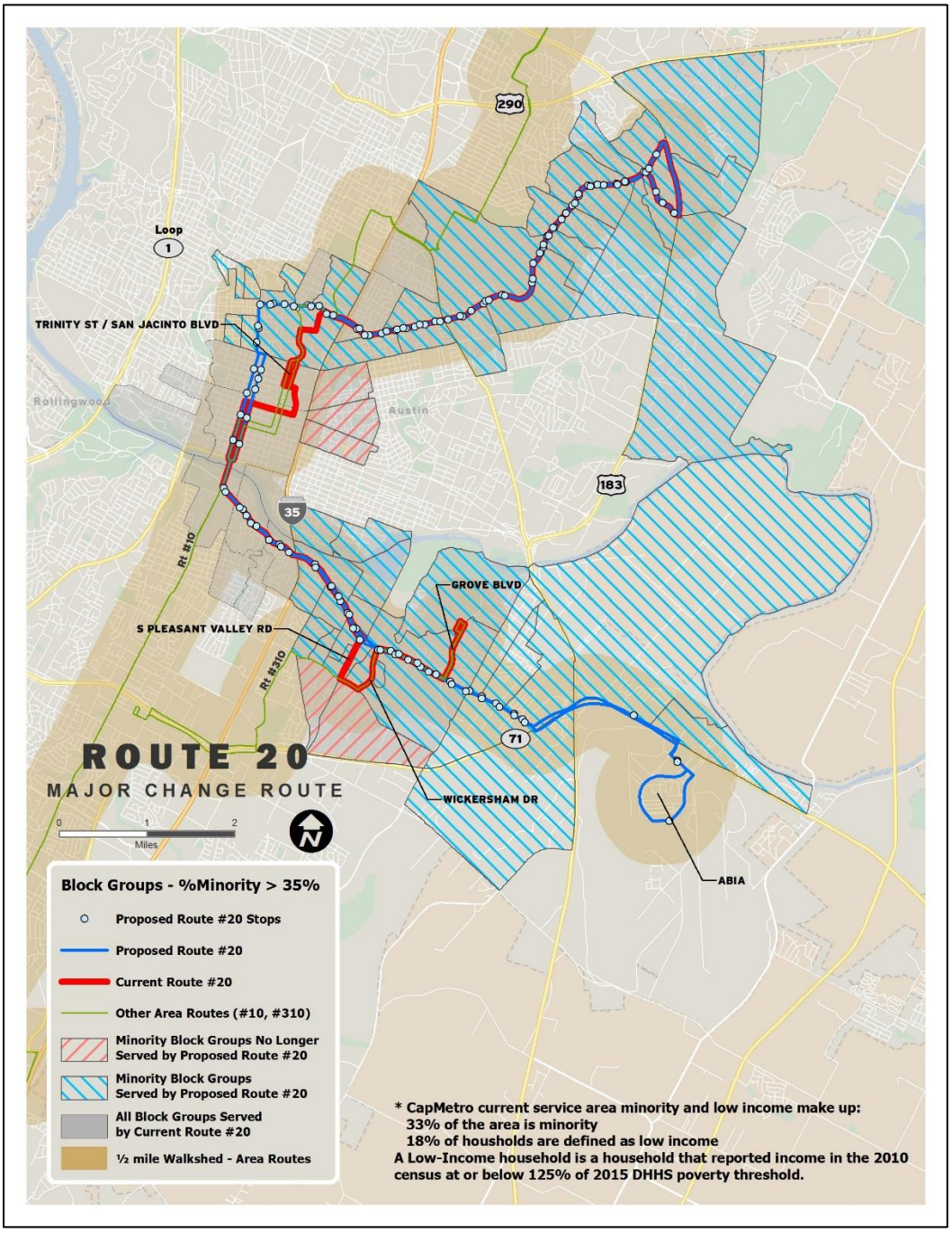
**Figure 6: Capital Metro Bus Route 18**




As shown in **Figure 6**, the proposed Route 18 would follow the same alignment as the current Route 18, with only minor deviations to the route through Downtown Austin. In terms of potential impacts to minority populations, there is one stop located in a minority block group on 21st Street that is served by the current route but would no longer be served by the proposed route. However, this stop is located within approximately 0.2 mile of proposed rerouted Route 18. Additionally, frequency on Route 18 would be increased from every 30 minutes to every 15

minutes resulting in better access from a service characteristics standpoint on this proposed route.

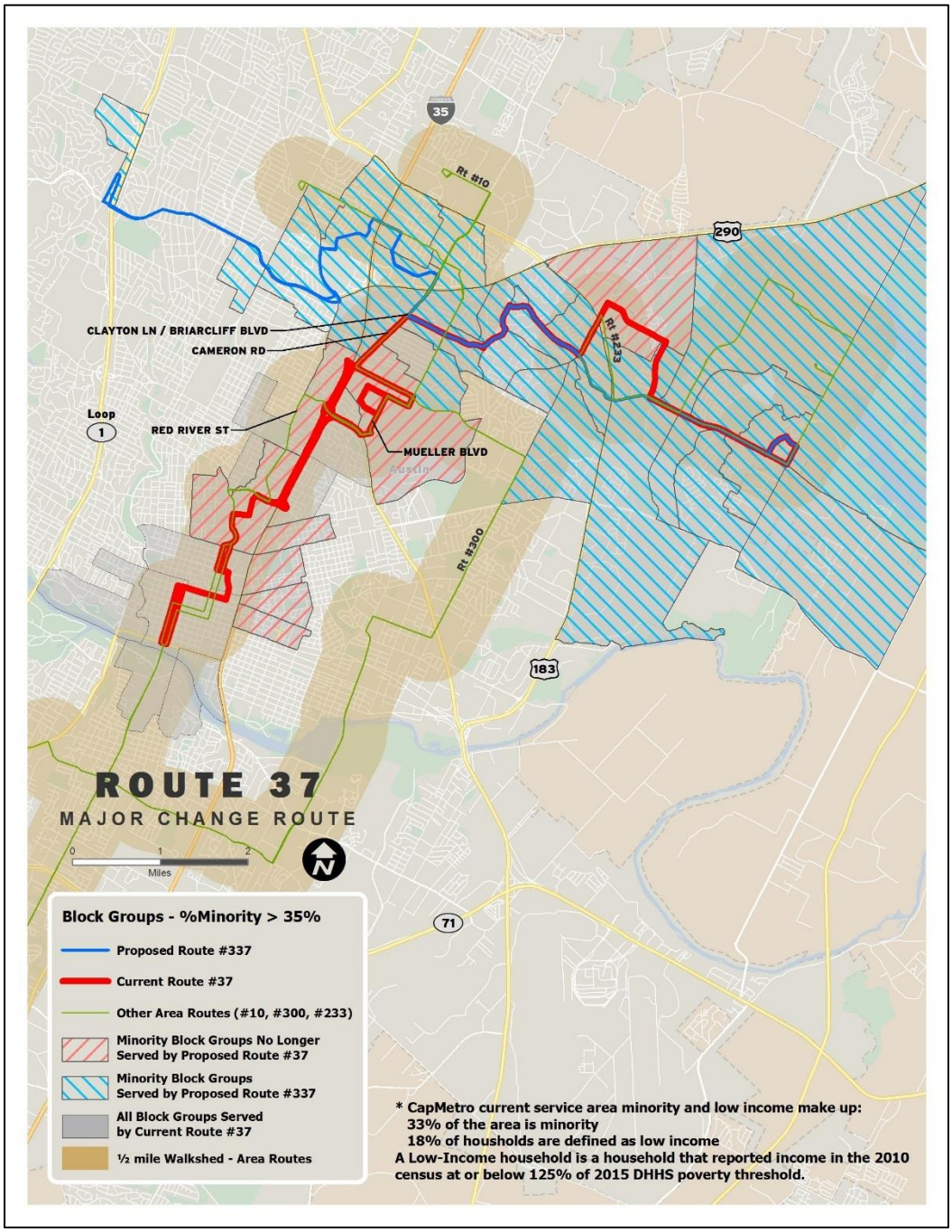
**Figure 7: Capital Metro Bus Route 20**




As shown in **Figure 7**, the proposed Route 20 would deviate from the current Route 20 in few areas along the route, including discontinuation of service on Grove Boulevard, South Pleasant Valley Road, Wickersham Drive, and Trinity Street/San Jacinto Boulevard. The proposed Route 20 would also be extended and provide direct service to Austin Bergstrom International Airport

(ABIA). In terms of potential impacts to minority populations, there are five minority block groups (two immediately south of East Oltorf Street and three in East Austin immediately east of IH-35 and immediately adjacent to downtown Austin) that are served by the current route but would no longer be served by the proposed route. However, the two minority block groups south of East Oltorf Street would be served by Route 310 which follows the same route as the current Route 20 in this area and the three block groups in East Austin are located within a one-half mile from the proposed Route 10 and would be served by this route. Moreover, proposed Route 20 provides benefits to additional minority block groups not served by the current Route 20 as the proposed route would provide access to four minority block groups located on the southeast end of the route near ABIA that are not served by the current Route 20. Additionally, service frequency would increase from every 20 minutes to every 15 minutes along proposed Route 20, resulting in better access from a service characteristics standpoint on this proposed route.

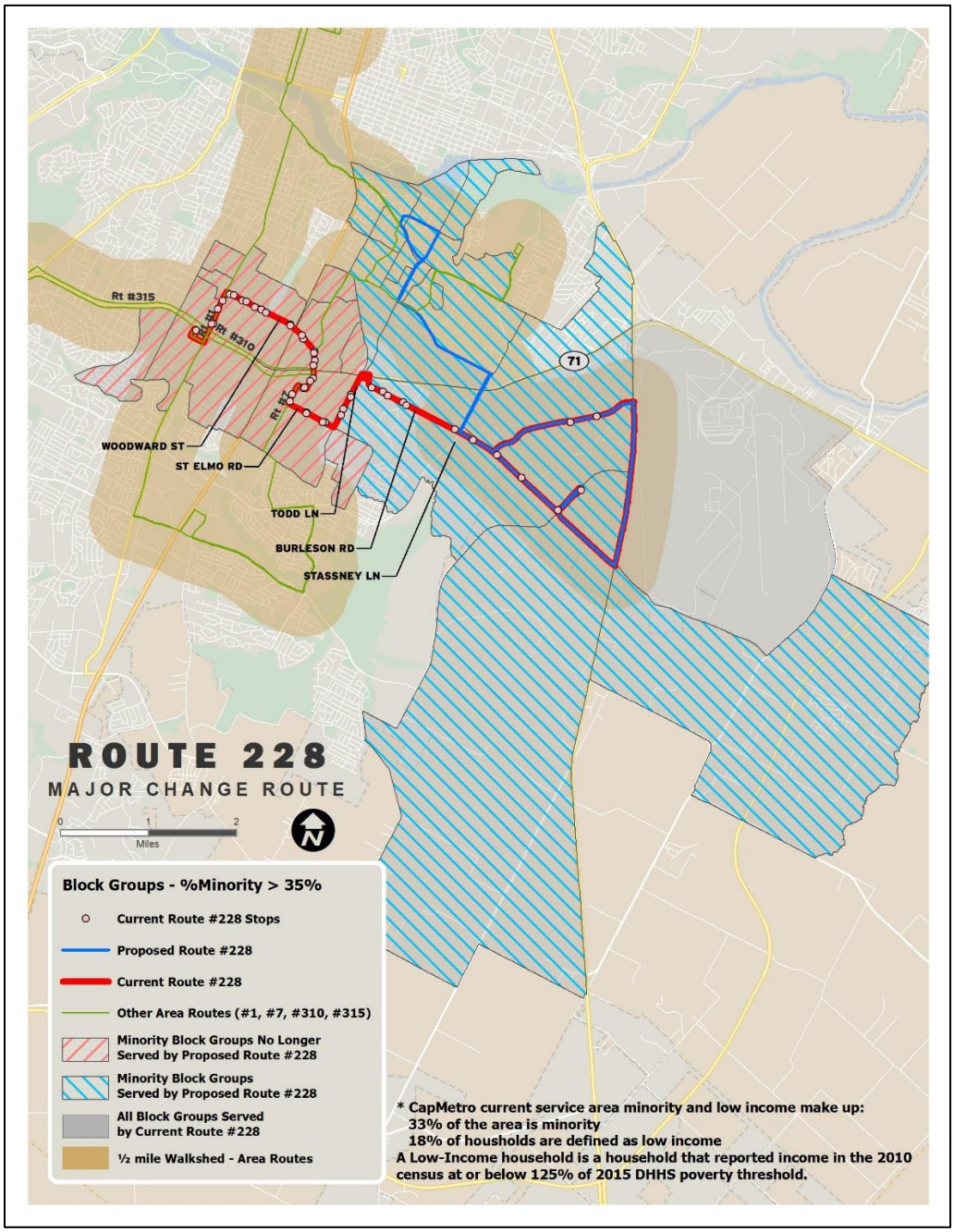
**Figure 8: Capital Metro Bus Route 37**




As shown in **Figure 8**, the current Route 37 would be renamed to Route 337 and the proposed Route 337 would be reconfigured to provide east/west service with a discontinuation of service along the southern leg of current Route 37 south of Clayton Lane/Briarcliff Boulevard. In terms of potential impacts to minority populations, there are 11 minority block groups (one in the northeast segment of the current alignment and 10 along the discontinued southern leg) that are served by the current route but would no longer be served by the proposed route. However, all of these minority block groups are within a one-half mile walk of proposed frequent Routes 10

and 300 and local Route 233. Therefore, these block groups would continue to be served by bus transit service after implementation of the proposed Route 337. Additionally, proposed Route 337 would benefit eight new minority block groups located on the northwest end of the route that are not served by the current Route 37.

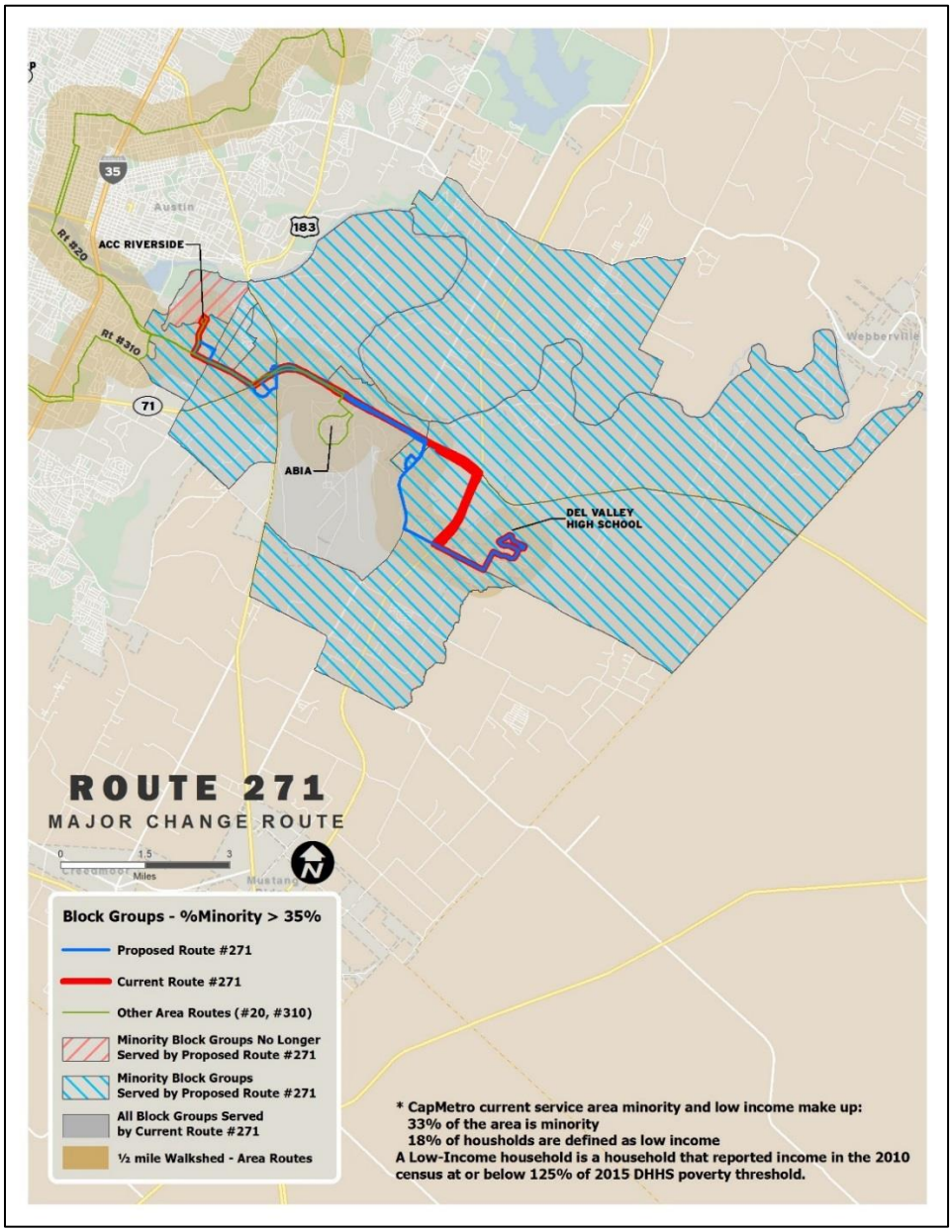
**Figure 9: Capital Metro Bus Route 228**




As shown in **Figure 9**, the proposed Route 228 would deviate from the current Route 228 west of Stassney Lane by shifting service to the north towards downtown instead of continuing west parallel to SH 71 to South Congress Transit Center. In terms of potential impacts to minority

populations as a result of this shift, there are nine minority block groups that are served by the current route that would no longer be served by the proposed route. However, these block groups are located within a one-half mile walk of new proposed Routes 310 and 315 and existing frequent Route 7, so bus service would still be accessible to people living within these block groups. Additionally, there are five bus stops served by the current route that would no longer be served by the proposed route that are located in minority block groups and are more than a one-half mile walk from the mitigation Routes 310 and 315 and existing frequent Route 7. These bus stops are located on Burleson Rd, east of Todd Lane. There is an average of 29 weekday boardings at these 5 bus stops. There would be positive impacts to minority block groups as a result of the implementation of proposed Route 228 as seven additional minority block groups would gain service from the proposed route.

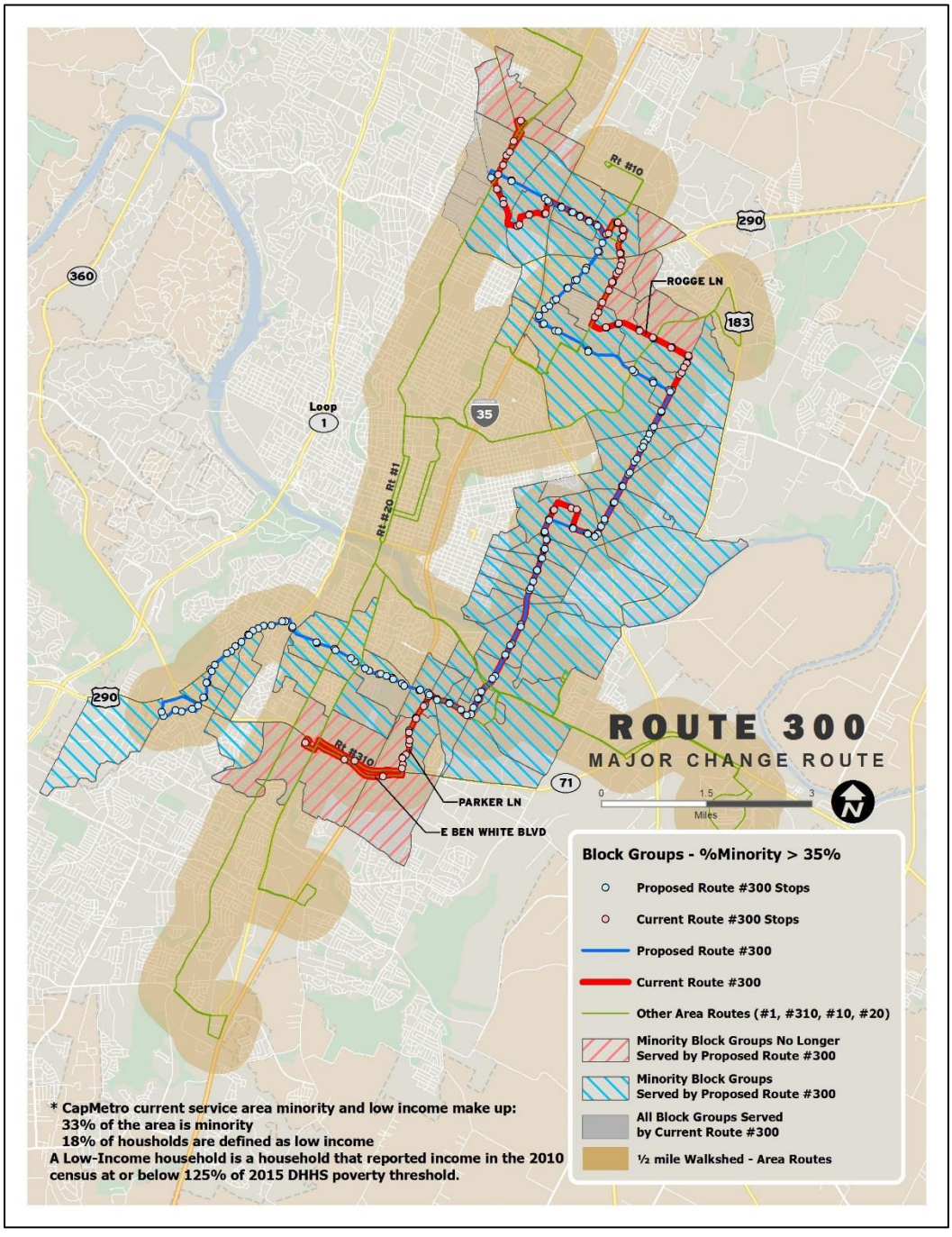
**Figure 10: Capital Metro Bus Route 271**




As shown in **Figure 10**, the proposed Route 271 would deviate from the current Route 271 on both the east and west ends of the route, specifically with Route 271 no longer serving the ACC Riverside campus on the west end of the route. In terms of potential impacts to minority populations, there is one minority block groups served by the current route that would no longer be served by the proposed route as a result of the discontinuation of service to ACC Riverside via proposed Route 271. However, ACC Riverside and the minority block group in which it is contained would be served by the proposed Routes 310 and 350, so bus service would be maintained to the campus and the minority block group. Additionally, the current Route 271 does not stop east of Cheviot as the route travels along the SH-71 and SH-130

frontage roads; so, while there appears to be an area along these two highway facilities that is served by the current route and not by the proposed route, there are no stops along this segment of the route, so there are no stops lost with the route shift in this area.

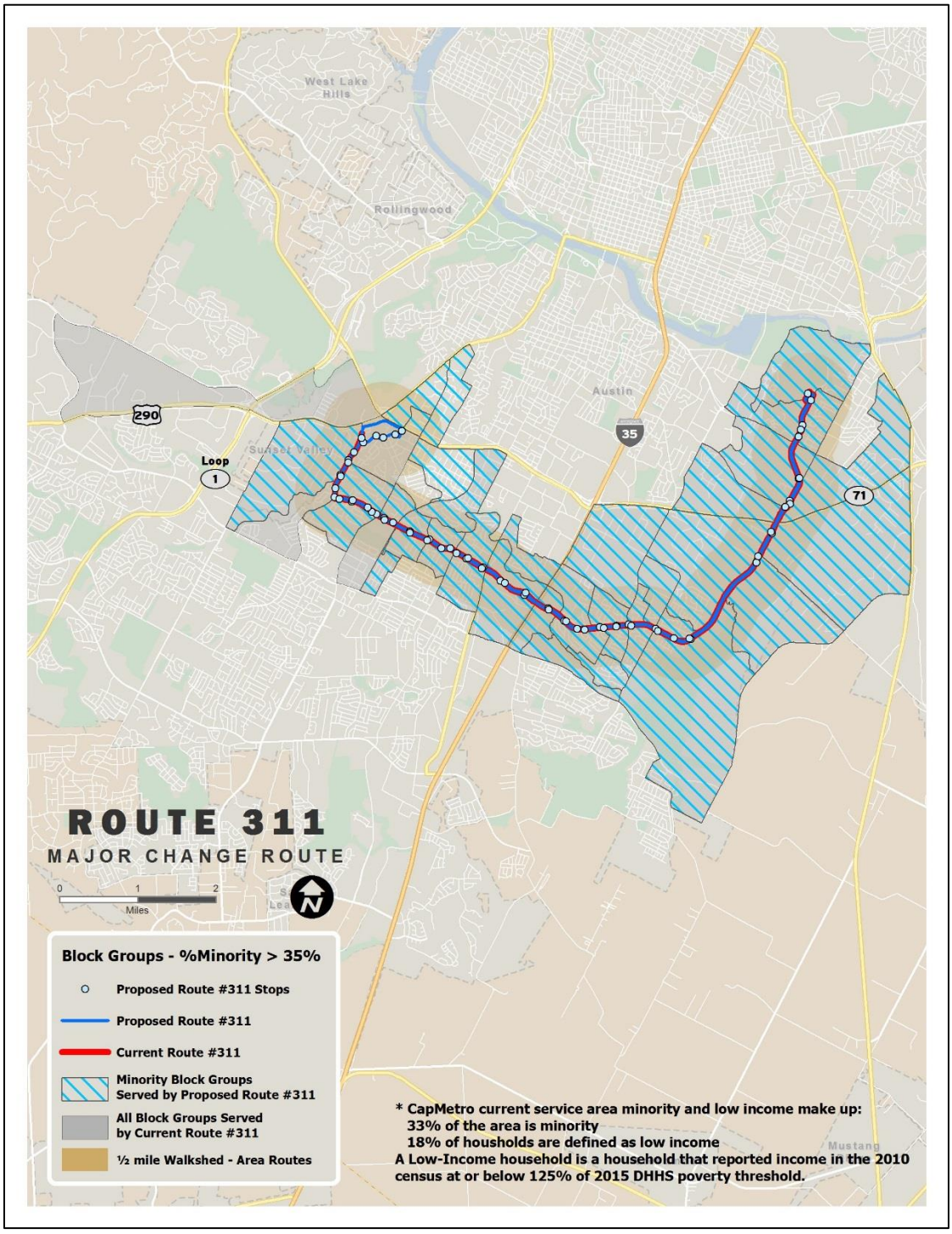
**Figure 11: Capital Metro Bus Route 300**




As shown in **Figure 11**, the proposed Route 300 would deviate from the current Route 300 predominantly on the north and south ends of the alignment. In terms of potential impacts to minority populations as a result of this deviation, there are 17 minority block groups that are

served by the current route that would no longer be served by the proposed route. However, these block groups are all located within a one-half mile walk of proposed Routes 1, 10 and 20 and new proposed Route 310, so frequent bus service would still be accessible to people living within these block groups. Additionally, service frequency would increase from every 30 minutes to every 15 minutes on proposed Routes 10 and from every 20 minutes to every 15 minutes on proposed 20, resulting in an increase in transit access from a service characteristics standpoint along these routes. The proposed Route 300 would also benefit seven new minority block groups on the southwest end of the proposed route that are not served by the current Route 300.

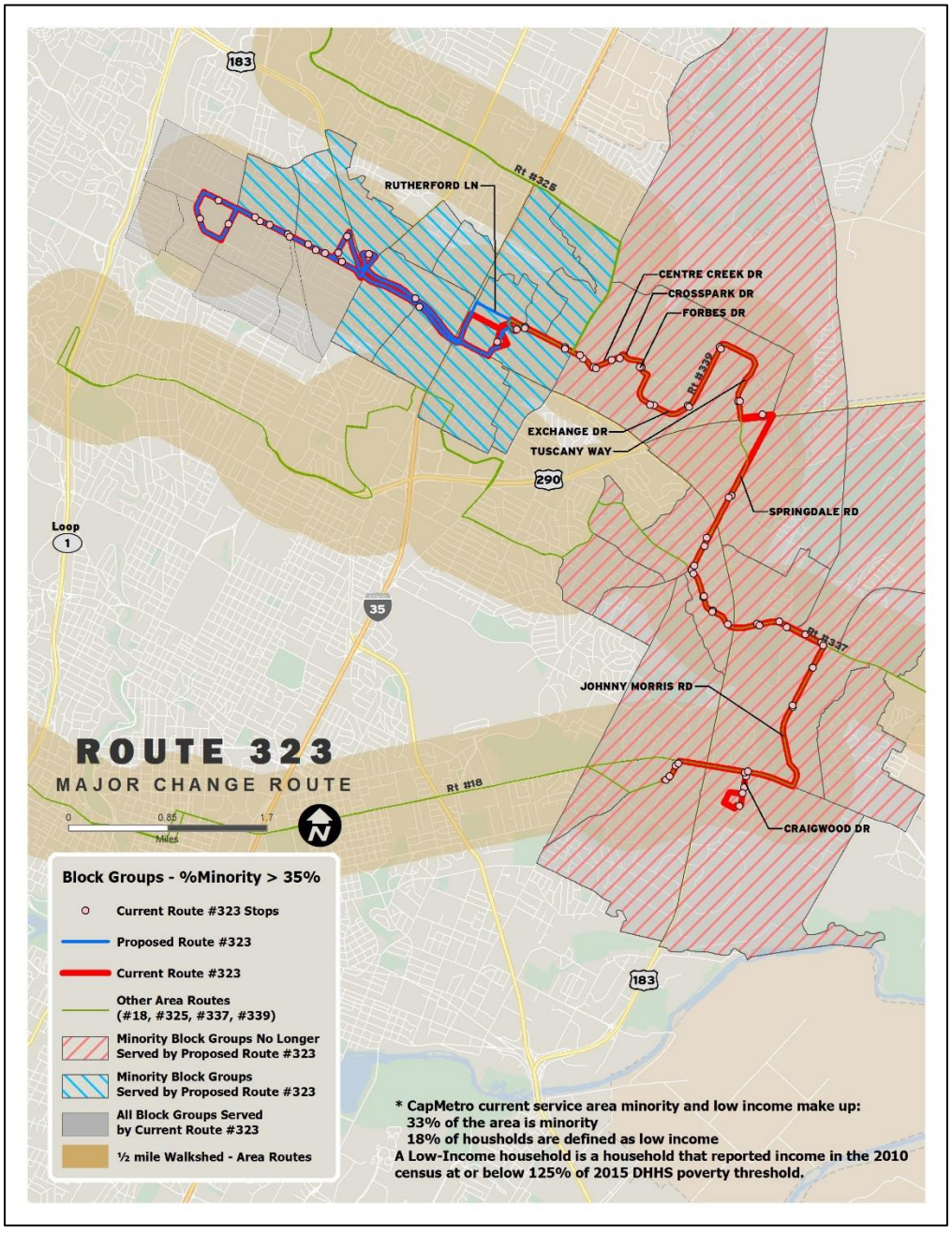
**Figure 12: Capital Metro Bus Route 311**




As shown in **Figure 12**, the proposed Route 311 would follow the same route as the current Route 311, with the only difference being the addition of four new bus stops on the west end of the route. The major change associated with proposed Route 311 is an increase in frequency from every 35 minutes to every 15 minutes. Therefore, the proposed route change would only

result in positive impacts to minority populations along the route due to the increased service frequency.

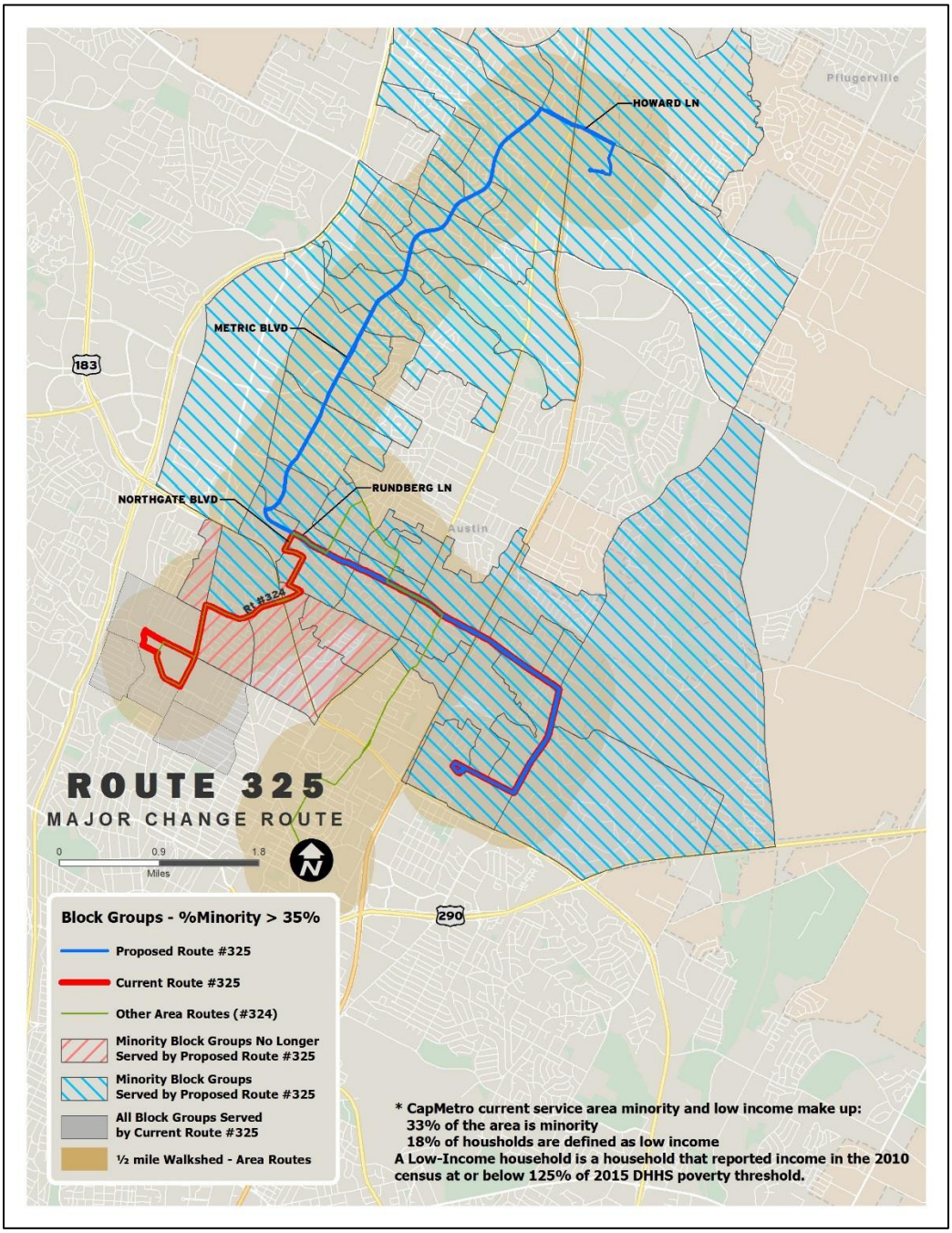
**Figure 13: Capital Metro Bus Route 323**




As shown in **Figure 13**, the proposed Route 323 would follow the same route as the current Route 323 on the northwest end of the route but would be truncated at Rutherford Lane just east of IH-35 with service being discontinued east of this point. In terms of potential impacts to minority populations, there are 17 minority block groups along the discontinued eastern portion of the current Route 323 alignment that would no longer be served by the proposed

route. However, all the existing stops in these minority block groups will be served by the proposed Route 339.

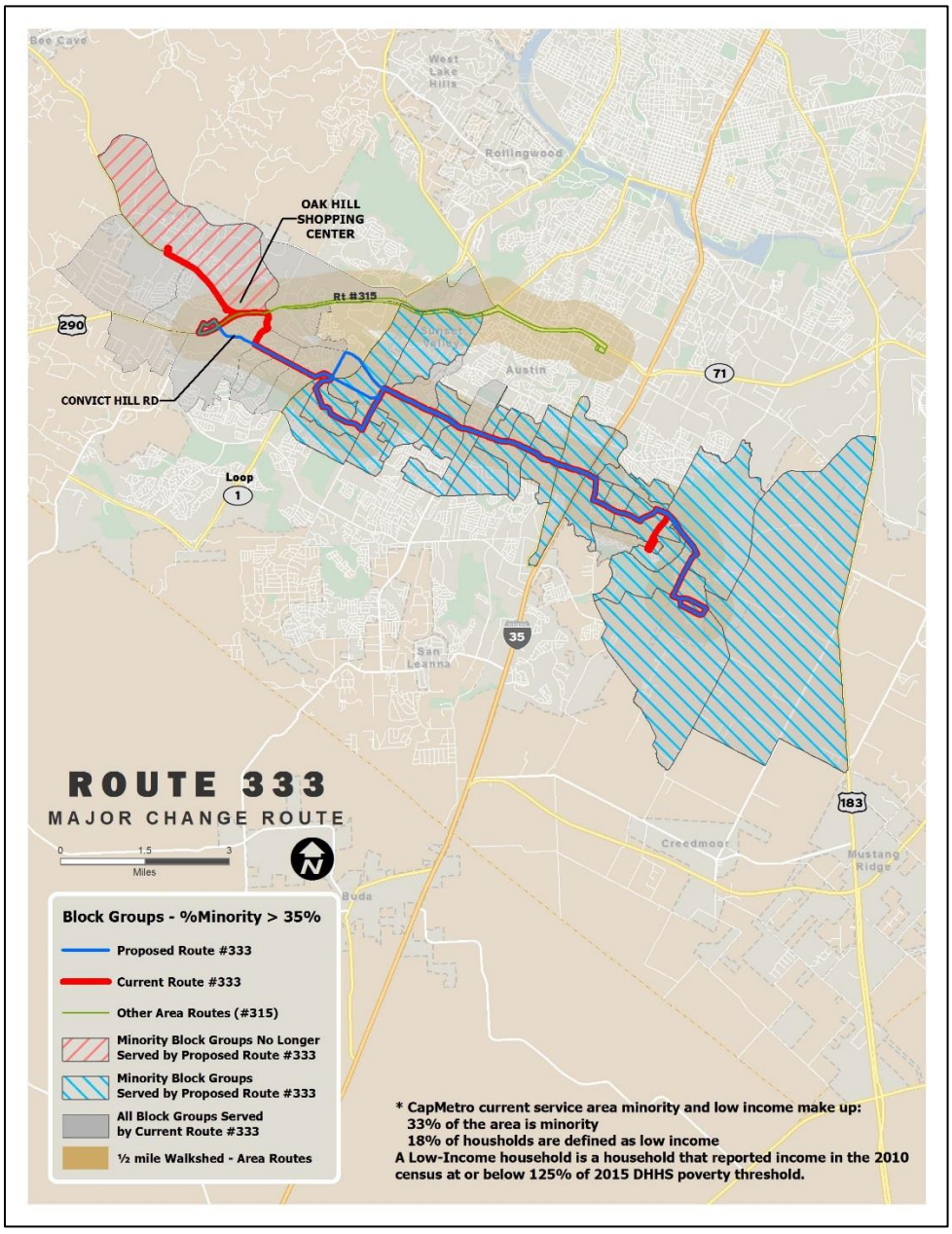
**Figure 14: Capital Metro Bus Route 325**




As shown in **Figure 14**, the proposed Route 325 would follow the same route as the current Route 325 on the southeast end of the route but would then deviate at West Rundberg Lane and North Gate Boulevard and instead of turning south on North Gate Boulevard, the proposed Route 325 would continue west and then turn north on Metric Boulevard and continue north to

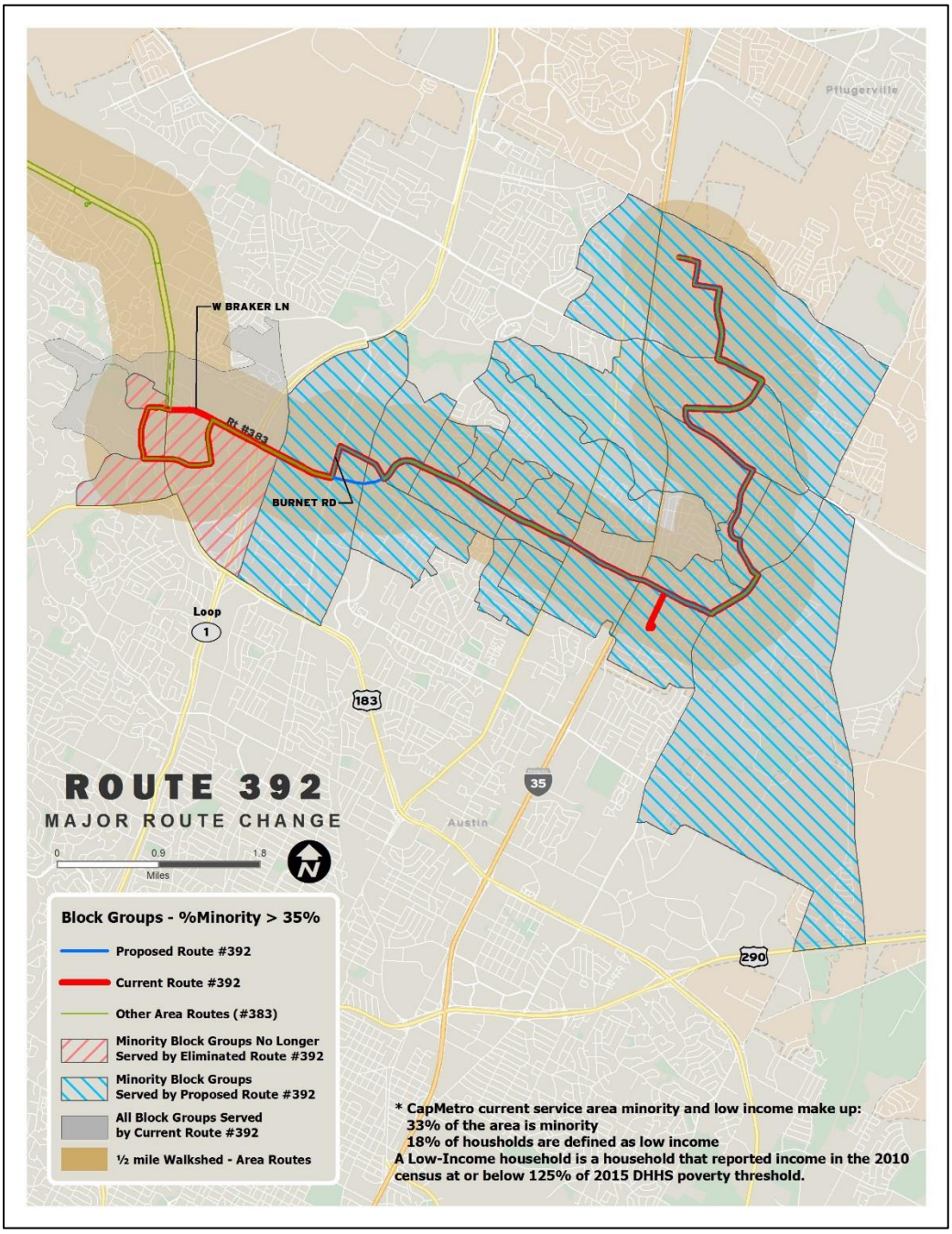
Howard Lane Boulevard ending at Tech Ridge Park and Ride. In terms of potential impacts to minority populations, there are five minority block groups along the discontinued southwestern portion of the current Route 325 alignment that would no longer be served by the proposed route. However, all of these minority block groups would be served by the new proposed Route 324, which would follow the discontinued southwestern leg of the current Route 325 and serve the same population. Therefore, these block groups would continue to be served by bus service after implementation of proposed Route 325. Moreover, 15 additional minority block groups would be served by the proposed Route 325 along the northern leg of the proposed route which are not served by the current route.

**Figure 15: Capital Metro Bus Route 333**



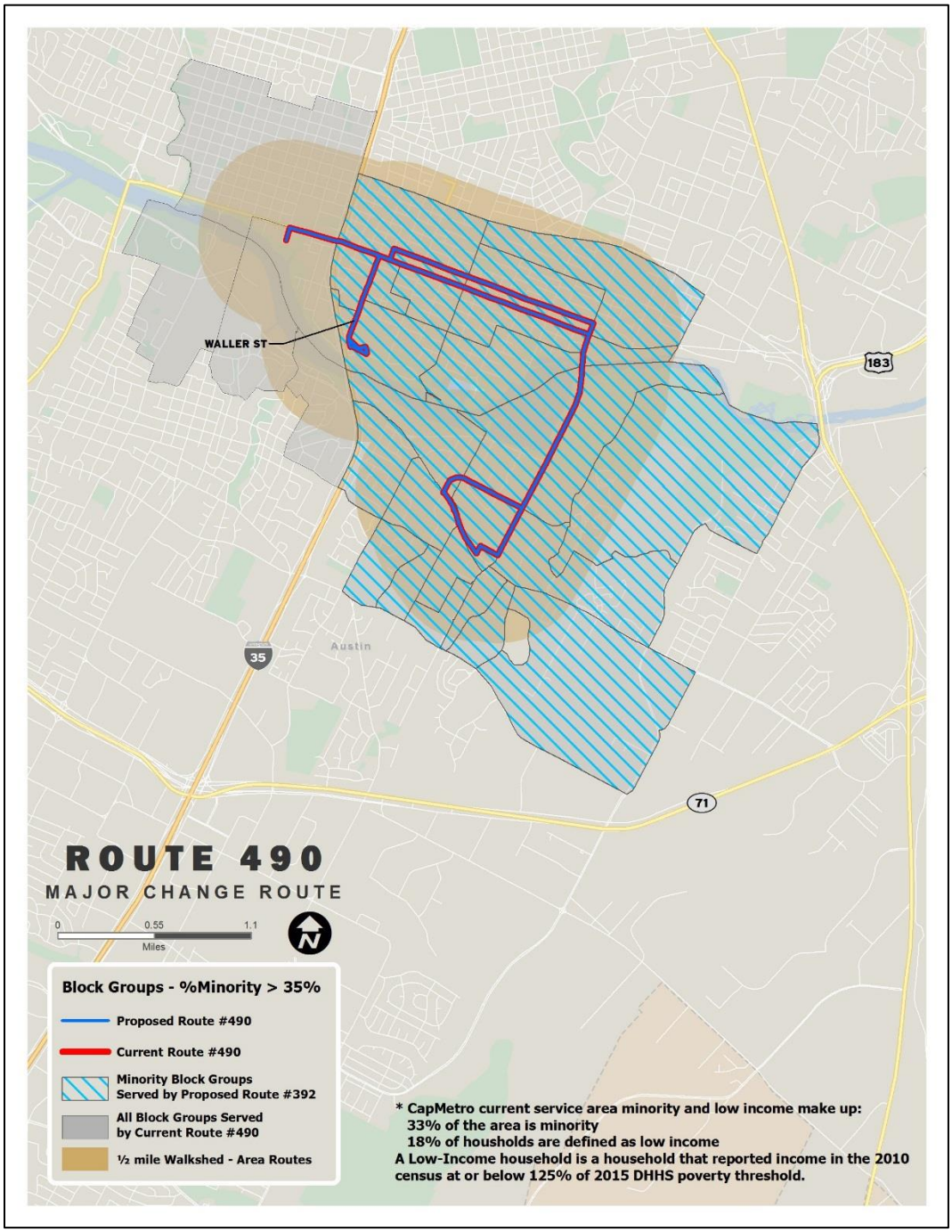
As shown in **Figure 15**, the proposed Route 333 would follow the current Route 333 alignment for a majority of the route with routing differences on the west end of the routes. While the current Route 333 continues up SH-71 past Oak Hill Shopping Center and beyond, the proposed Route 333 would continue along Convict Hill Road to ACC Pinnacle. In terms of potential impacts to minority populations, there is one minority block group and the Oak Hill Shopping Center that is served by the current route on the far west end of the route that would no longer be served by the proposed route. However, proposed Route 315 would serve as a mitigation route and provide access to Oak Hill Shopping Center and a portion of the subject minority block group. There is one stop at Travis Count Precinct 3 offices that would no longer have service and would be more than a half-mile walk from Oak Hill Shopping Center. There is an average of 2 weekday boardings at this bus stop. Additionally, service frequency along a majority of the route would increase from every 30 minutes to every 15 minutes along proposed Route 333, resulting in better access from a service characteristics standpoint on this proposed route.

**Figure 16: Capital Metro Bus Route 392**




As shown in **Figure 16**, the proposed Route 392 would follow the current Route 392 alignment for a majority of the route with the major routing difference being a truncation of the route west of West Braker Lane and Burnet Road. In terms of potential impacts to minority populations, there are two minority block groups that are served by the current route on the far west end of the route that would no longer be served by the proposed route. However, Route 383 would serve as a mitigation route and provide access to these block groups as Route 383 follows the same route as the current Route 392 in this area.

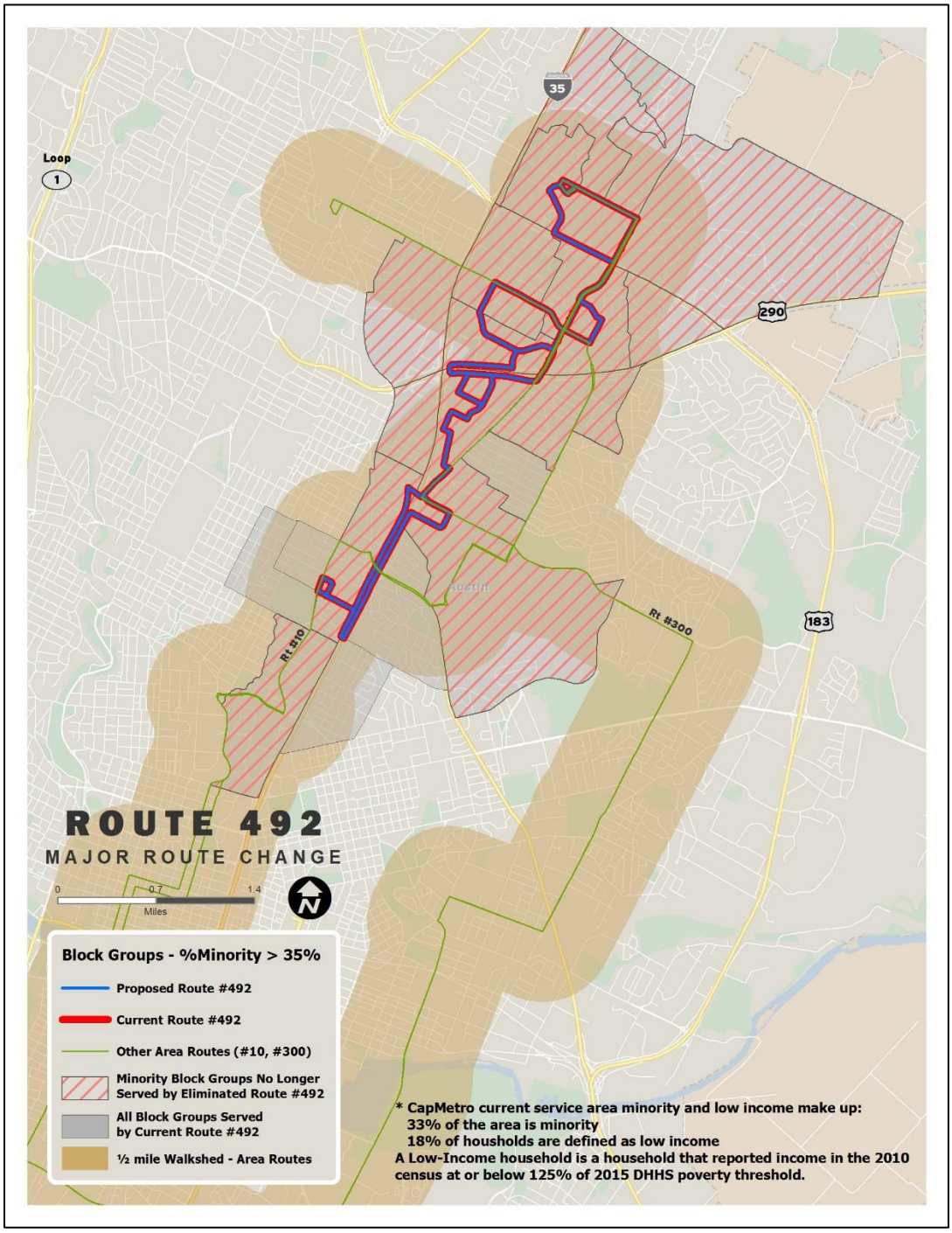
**Figure 17: Capital Metro Bus Route 490**




As shown in **Figure 17**, proposed Route 490 would follow the same route as the current Route 490 with the change being a reduction of service from four days a week to one day a week. There would be no potential impacts to minority populations as a result of implementation of the proposed Route 490 as all of the same minority block groups would be served by the proposed route as are served by the current route. Despite a reduction in service levels, service

frequency would be maintained due to mitigation Routes 17 and 322 providing service to the minority block groups.

**Figure 18: Capital Metro Bus Route 492**




As shown in **Figure 18**, proposed Route 492 would follow the same route as the current Route 492 with the change being a reduction of service from three days a week to one day a week. There would be no potential impacts to minority block groups as a result of implementation of

the proposed Route 492 as all of the same minority block groups would be served by the proposed route as are served by the current route. Despite a reduction in service levels, service frequency would be maintained due to mitigation Routes 10 and 300 providing frequent service to the minority block groups.

**Table 2** below shows the results for the specific bus routes that are planned for elimination as part of the implementation of the Connections 2025 service changes.

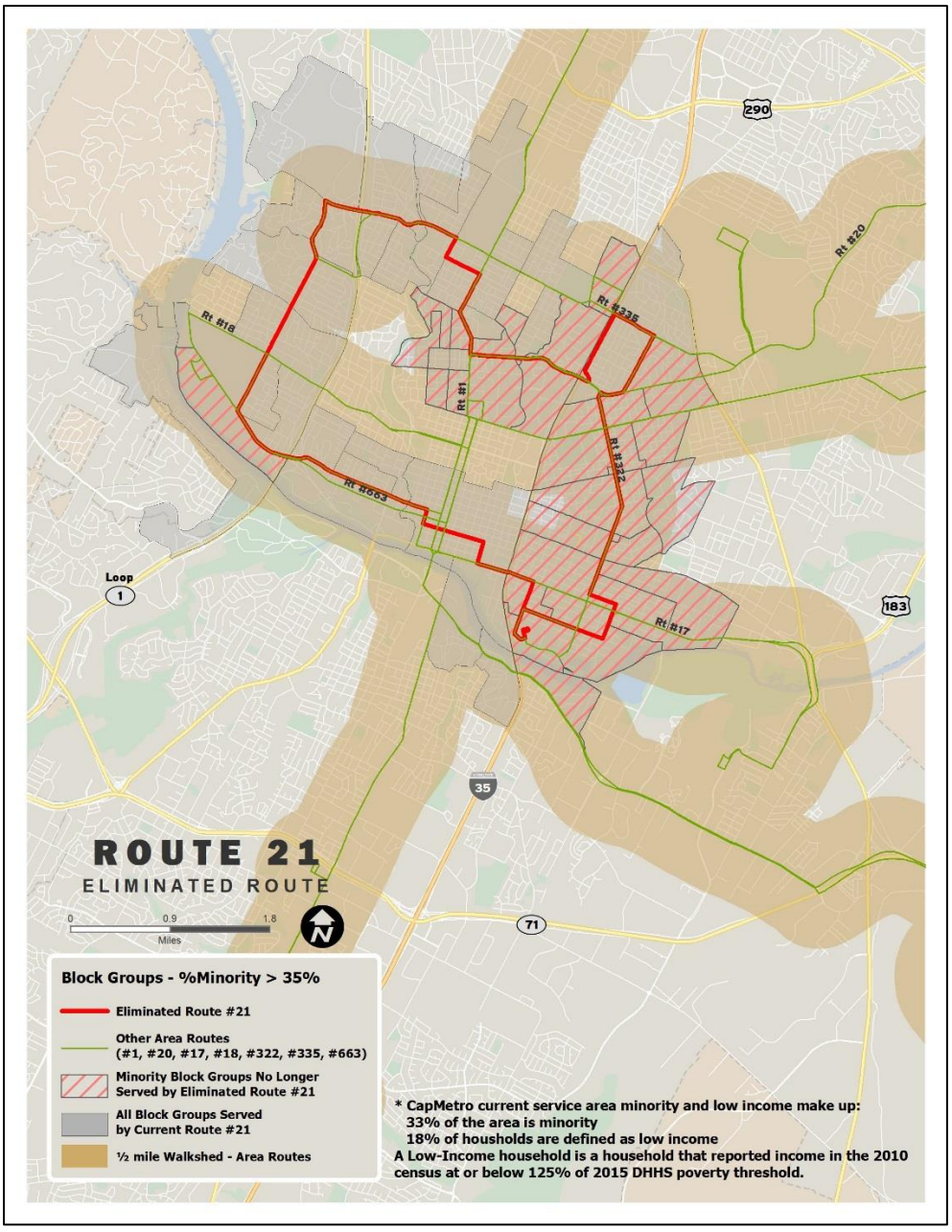
**Table 2: Equity Analysis Results of Current Bus Routes Proposed for Elimination**

| Route Number | Route BGs Total Population | Route BGs Minority Population | Route BGs % Minority | Service Area % Minority | Route % Minority Minus Service Area % Minority | Potential Minority Impact | Route BGs Poverty Households | Route BGs Total Households | Route BGs % Low Income | Service Area % Low Income | Route % Low Income Minus Service Area % Income | Potential Low Income Impact |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 84,454 | 33,248 | 39.37 | 33 | 6.37 | Yes | 1,452 | 34,995 | 4.15 | 18 | -13.85 | No |
| 22 | 85,419 | 33,485 | 39.20 | 33 | 6.20 | Yes | 1,452 | 35,651 | 4.07 | 18 | -13.93 | No |
| 100 | 70,448 | 44,933 | 63.78 | 33 | 30.78 | Yes | 2,851 | 28,316 | 10.07 | 18 | -7.93 | No |
| 122 | 121,466 | 36,271 | 29.86 | 33 | -3.14 | No | 1,211 | 54,761 | 2.21 | 18 | -15.79 | No |
| 127 | 82,194 | 50,227 | 61.11 | 33 | 28.11 | Yes | 2,607 | 31,629 | 8.24 | 18 | -9.76 | No |
| 238 | 43,931 | 17,546 | 39.94 | 33 | 6.94 | Yes | 772 | 21,196 | 3.64 | 18 | -14.36 | No |
| 240 | 63,863 | 44,734 | 70.05 | 33 | 37.05 | Yes | 3,244 | 27,006 | 12.01 | 18 | -5.99 | No |
| 275 | 55,255 | 40,537 | 73.36 | 33 | 40.36 | Yes | 2,927 | 22,401 | 13.07 | 18 | -4.93 | No |
| 320 | 105,976 | 61,905 | 58.41 | 33 | 25.41 | Yes | 4,113 | 49,491 | 8.31 | 18 | -9.69 | No |
| 331 | 66,922 | 38,659 | 57.77 | 33 | 24.77 | Yes | 2,979 | 31,689 | 9.40 | 18 | -8.60 | No |
| 464 | 23,865 | 11,713 | 49.08 | 33 | 16.08 | Yes | 215 | 6,944 | 3.10 | 18 | -14.90 | No |
| 653 | 23,281 | 9,239 | 39.68 | 33 | 6.68 | Yes | 288 | 6,870 | 4.19 | 18 | -13.81 | No |
| 970 | 48,344 | 13,050 | 26.99 | 33 | -6.01 | No | 428 | 25,812 | 1.66 | 18 | -16.34 | No |

Source: HNTB, October 2017.

As shown in **Table 2**, there are 13 bus routes planned for elimination in the Connections 2025 transit plan, meaning an equity analysis is required for these routes to determine potential disparate or disproportionate impacts to minority and low-income populations. Looking at the results presented in **Table 2**, of those 13 routes, 11 of the routes (those with red highlighted text) are considered "potential equity routes" meaning that the routes exceeded the "greater than two percent" threshold established in Capital Metro's disparate and disproportionate impacts policies. All 11 of the potential equity routes are considered such because of potential impacts to minorities as there are no low-income impacts that exceed the two percent threshold. For each of these potential equity routes, specific mitigation is available, most commonly in the form of transit access from other existing or proposed bus routes within a one-half mile walk shed of the current bus route. Maps of each of the potential equity routes listed in **Table 2** are provided below and are followed by a mitigation discussion for each.

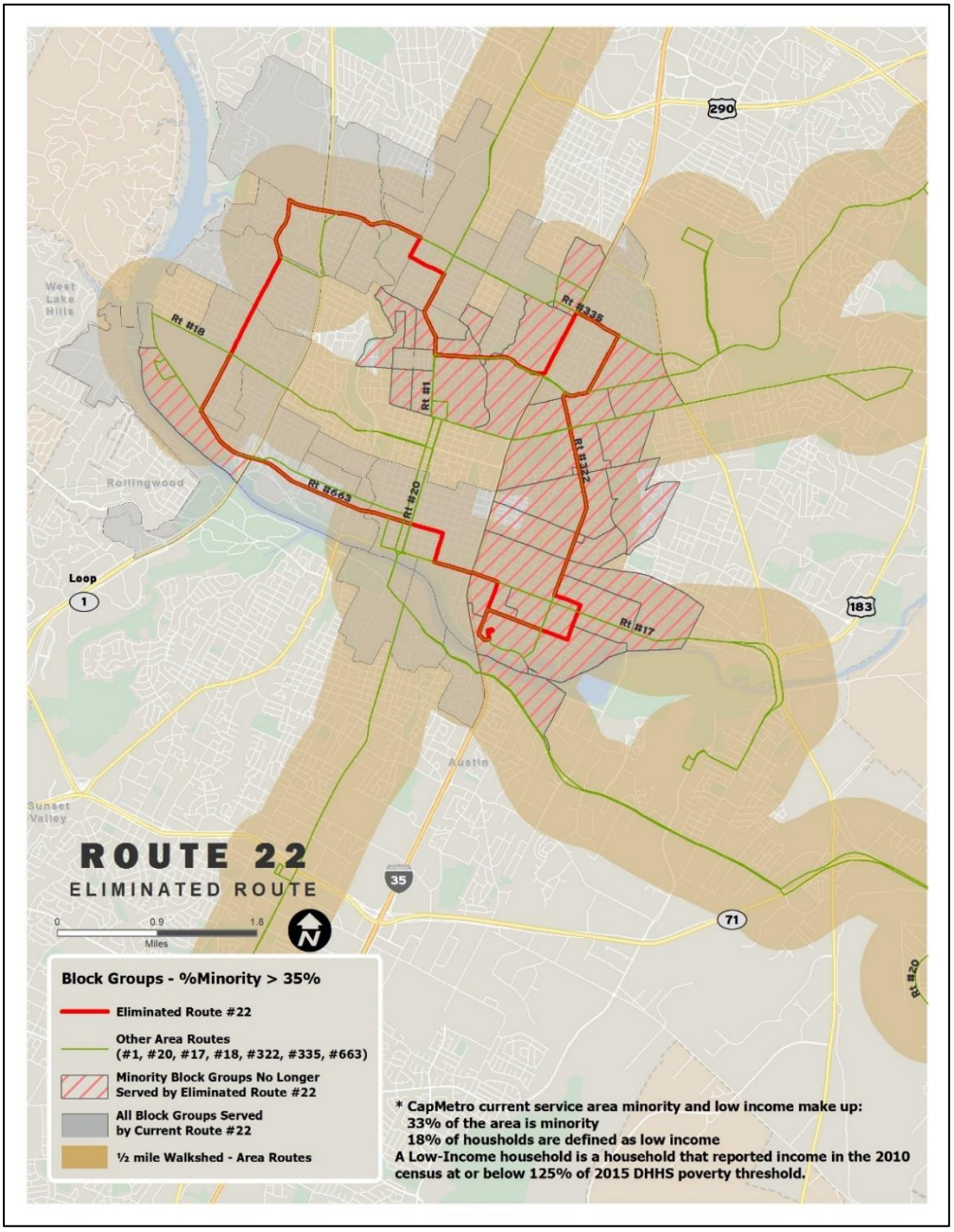
**Figure 19: Capital Metro Bus Route 21 (Planned for Elimination)**




As shown in **Figure 19**, Route 21 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 21 currently provides service to 30 minority block groups. However, all 30 of these block groups are all located within a one-half mile walk or less of proposed Routes 17, 18, 20, 322 and 335 and existing Routes 1 and 663, so frequent bus service would still be accessible to people living within these block groups. Additionally, service frequency would increase from every 30 minutes to every 15 minutes along proposed Routes 18 and from every 20 minutes to every 15 minutes on proposed Route

20. Finally, proposed Route 335 would be a new service route resulting in all three of these proposed routes providing better access from a service characteristics standpoint in this area.

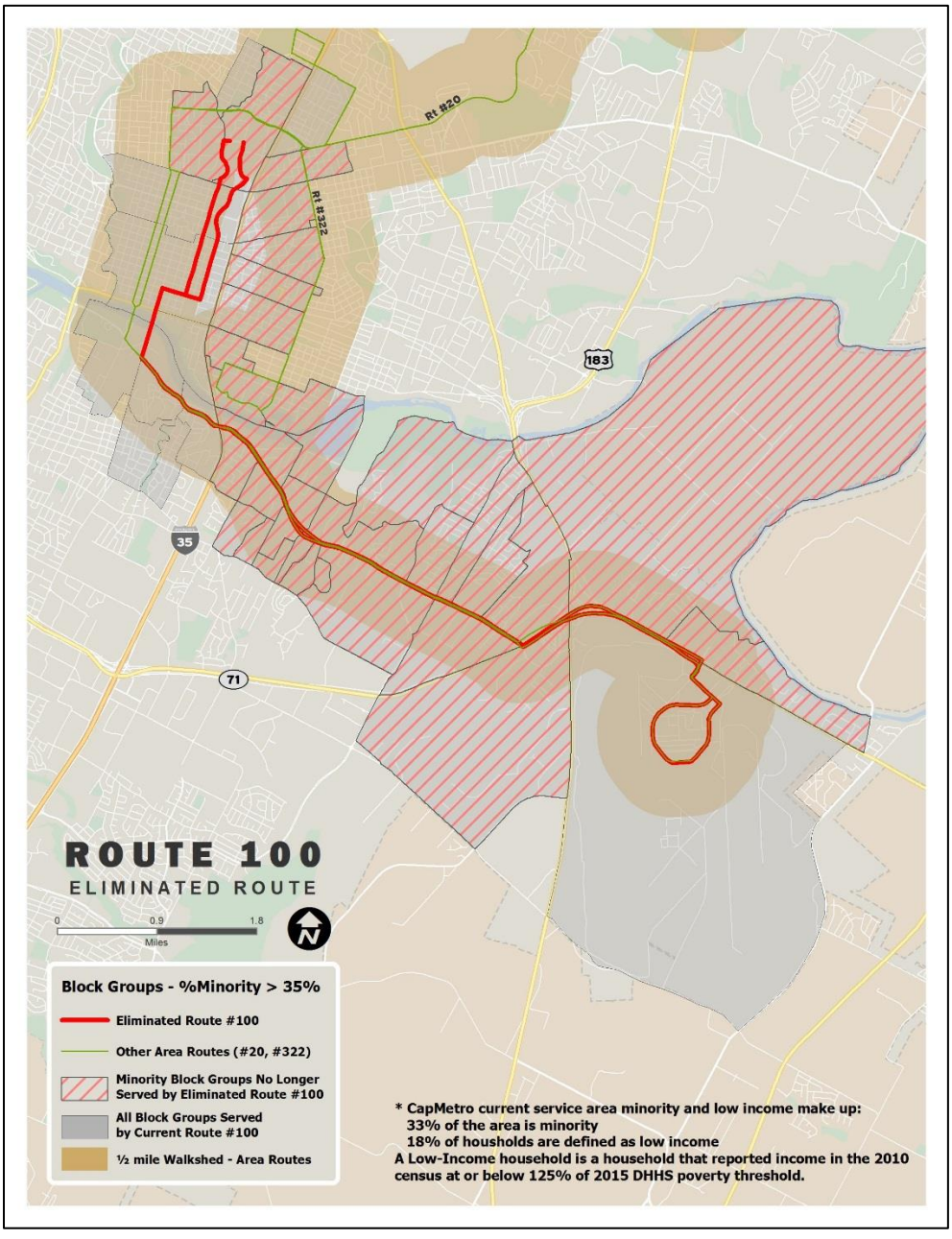
**Figure 20: Capital Metro Bus Route 22 (Planned for Elimination)**




As shown in **Figure 20**, Route 22 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 22 currently provides service to 30 minority block groups. However, all 30 of these block groups are all located within a one-half mile walk or less of proposed Routes 17, 18, 20, 322, and 335 and existing Routes 1and 663, so frequent bus service would still be accessible to people living within these block groups.

Additionally, service frequency would increase from every 30 minutes to every 15 minutes along proposed Routes 18 and from every 20 minutes to every 15 minutes on proposed Route 20. Finally, proposed Route 335 would be a new service route resulting in all three of these proposed routes providing better access from a service characteristics standpoint in this area.

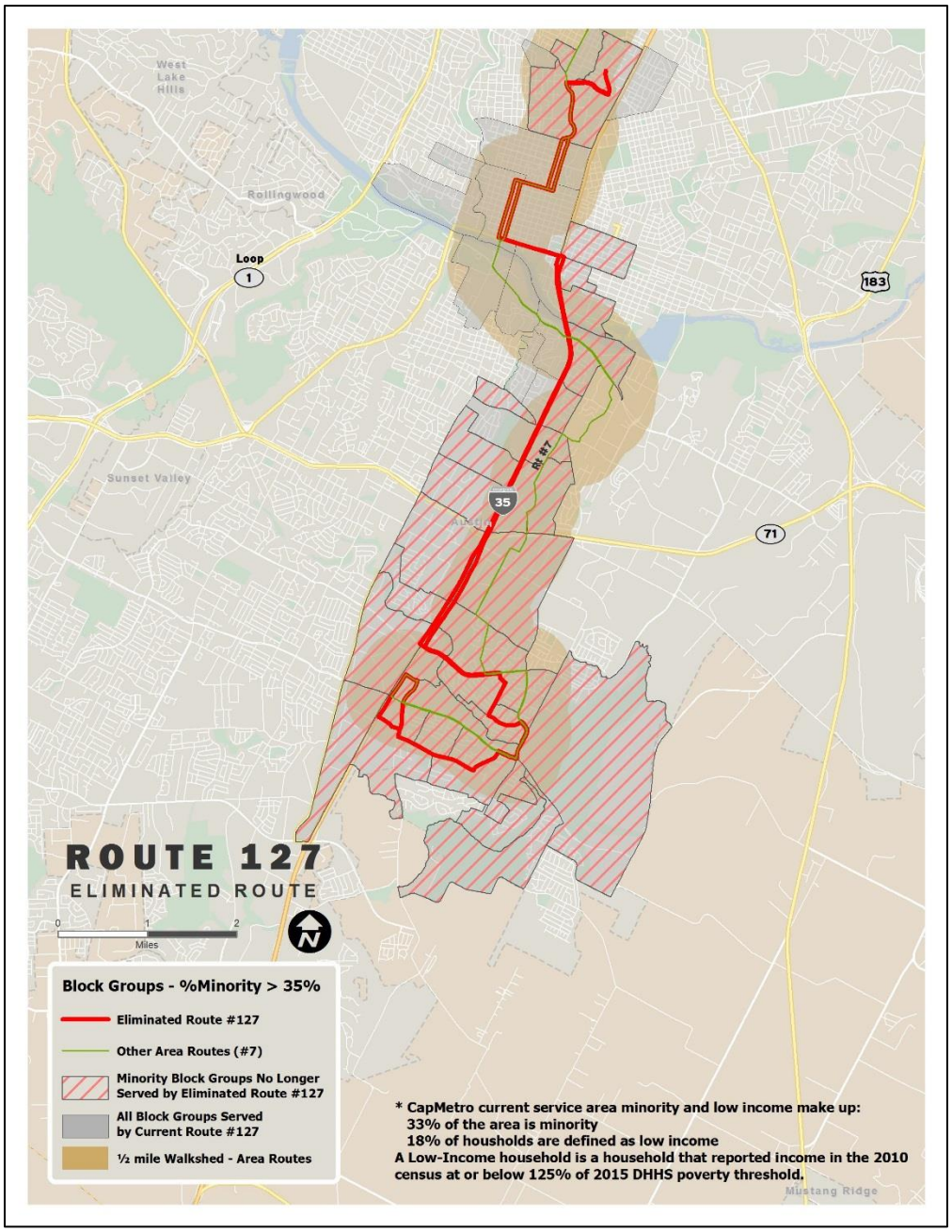
**Figure 21: Capital Metro Bus Route 100 (Planned for Elimination)**




As shown in **Figure 21**, Route 100 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 100 currently provides service to 32 minority block groups. However, 29 of the 32 block groups are located within a one-half mile walk or less of proposed Routes 20 which follows the majority of the current Route 100, so

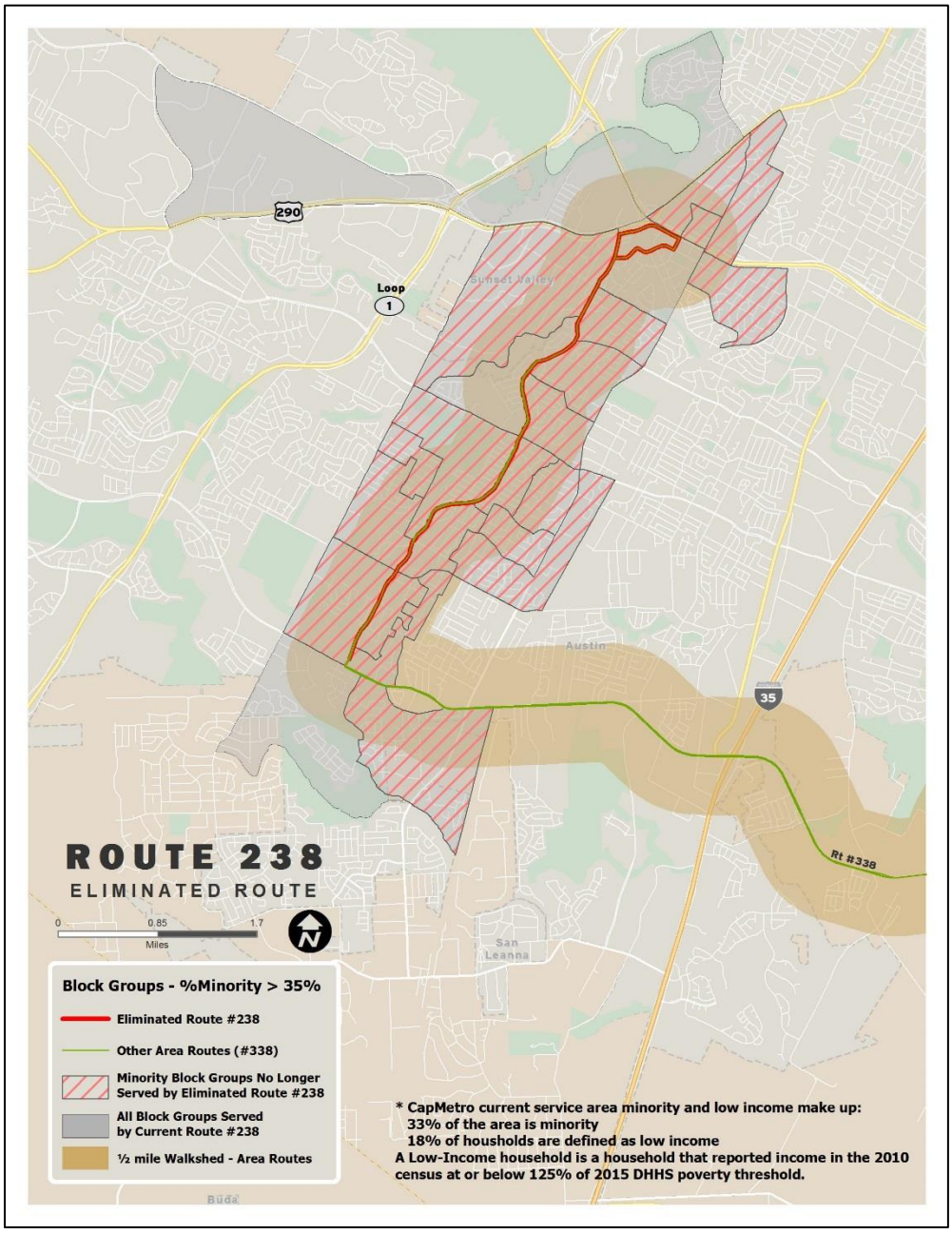
frequent bus service would still be accessible to people living within these block groups. The three block groups accessed by the current Route 100 but not the mitigation Route 20 are all located immediately east of IH-35, just east of Downtown Austin in East Austin. These block groups are served by proposed Route 322. Additionally, service frequency would increase from every 20 minutes to every 15 minutes along proposed Route 20. Service from airport would improve from every 30 minutes to every 15 minutes. This results in the proposed route providing better access from a service characteristics standpoint in this area.

**Figure 22: Capital Metro Bus Route 127 (Planned for Elimination)**



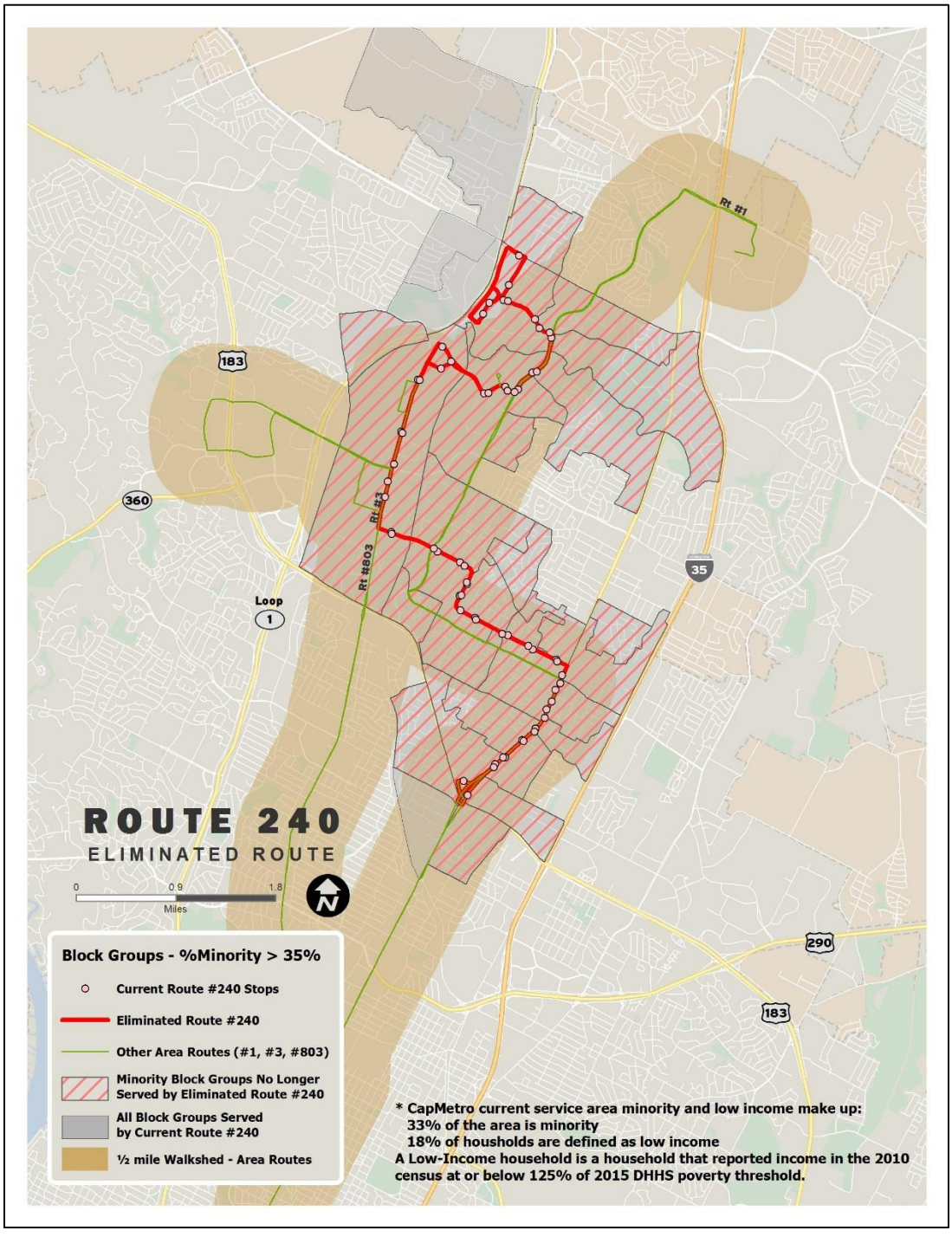

As shown in **Figure 22**, Route 127 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 127 currently provides service to 36 minority block groups. However, all of these block groups are located within a one-half mile walk or less of existing Route 7 which parallels the majority of the current Route 127, so frequent bus service to downtown would still be accessible to people living within these block groups.

**Figure 23: Capital Metro Bus Route 238 (Planned for Elimination)**




As shown in **Figure 23**, Route 238 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 238 currently provides service to 19 minority block groups. However, all of these block groups would be directly served by the proposed Route 338 as this route would follow the same corridor as current Route 238 for the central portion of the route, so bus service would still be accessible to people living within these block groups.

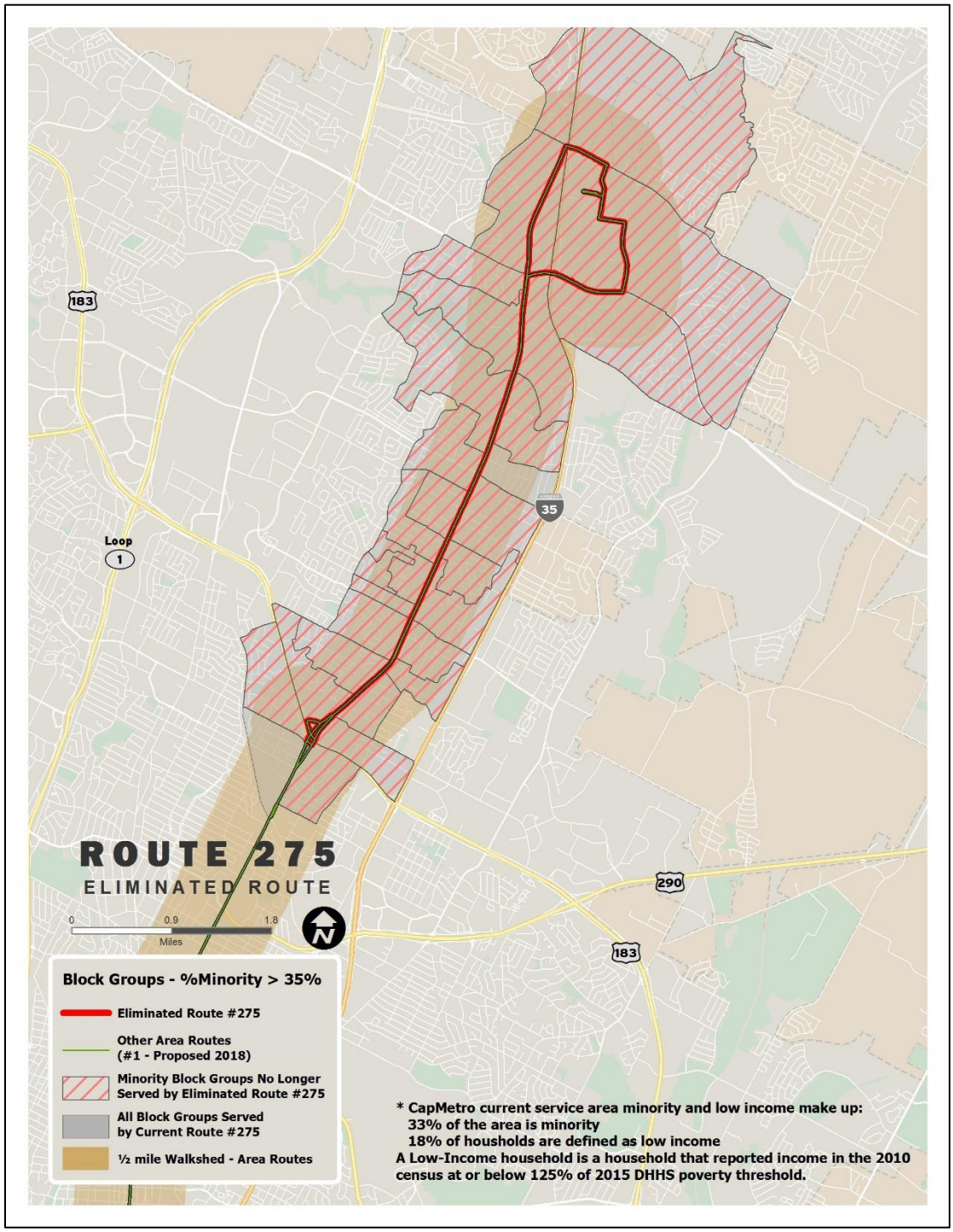
**Figure 24: Capital Metro Bus Route 240 (Planned for Elimination)**




As shown in **Figure 24**, Route 240 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 240 currently provides service to 33 minority block groups. However, all 33 of these block groups are all located within a one-half mile walk of proposed Routes 325 and existing Routes 1, 3, and 803, so frequent bus service would still be accessible to people living within these block groups. On the north end of the

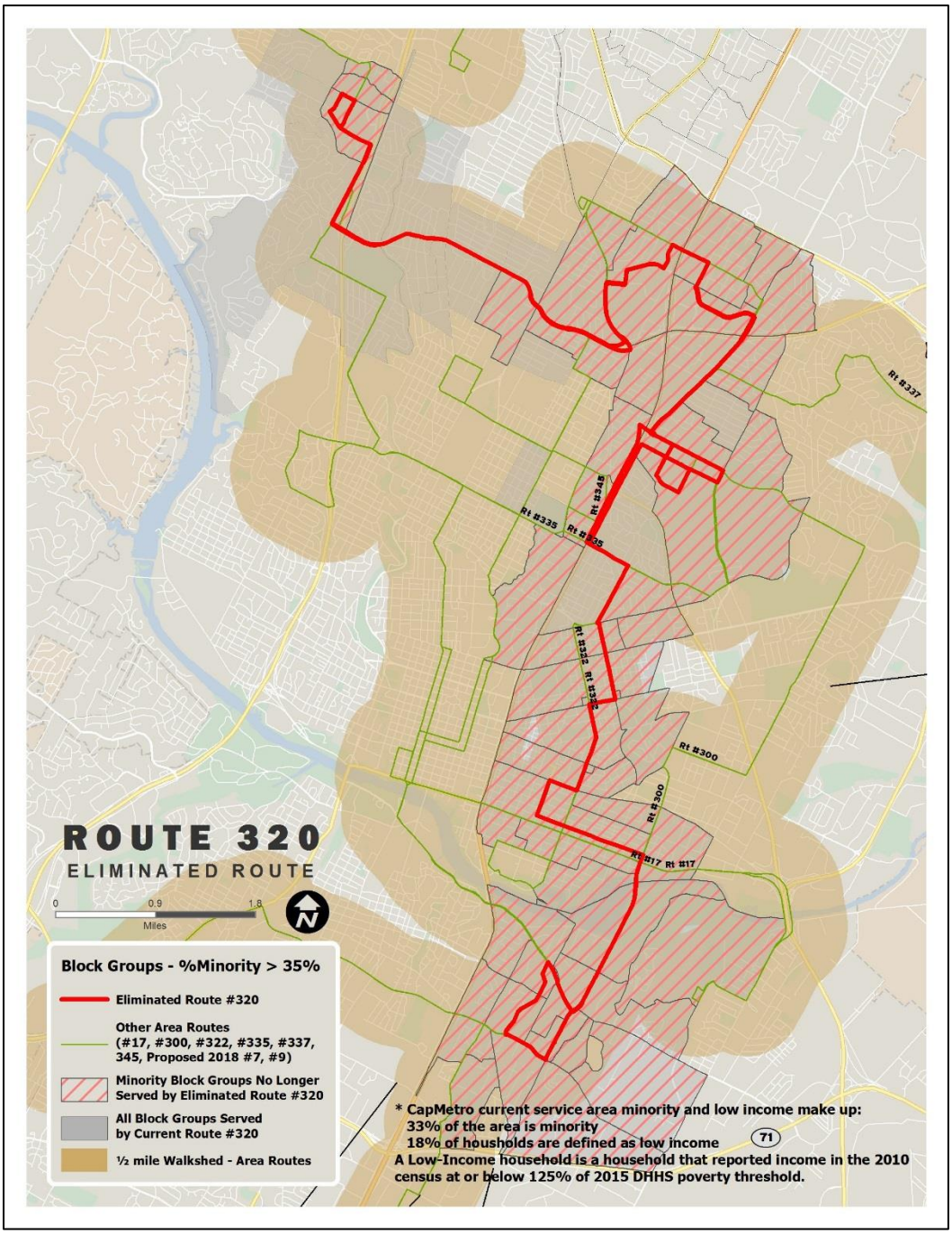
route, there are five bus stops served by the current route that would no longer be served that are within minority block groups and are not within a one-half mile walk of the mitigation Routes 325, 801, or 803. Two of these stops are located right on the edge of the one-half mile walk shed while the other three stops are all approximately a 0.7 mile walk to the proposed Route 325. These five stops have a total of 93 average weekday boardings with over two-thirds of the boardings at HEB at Parmer and MoPac. Due to the challenging street network in this area, it would be costly to modify other routes to serve this area.

**Figure 25: Capital Metro Bus Route 275 (Planned for Elimination)**



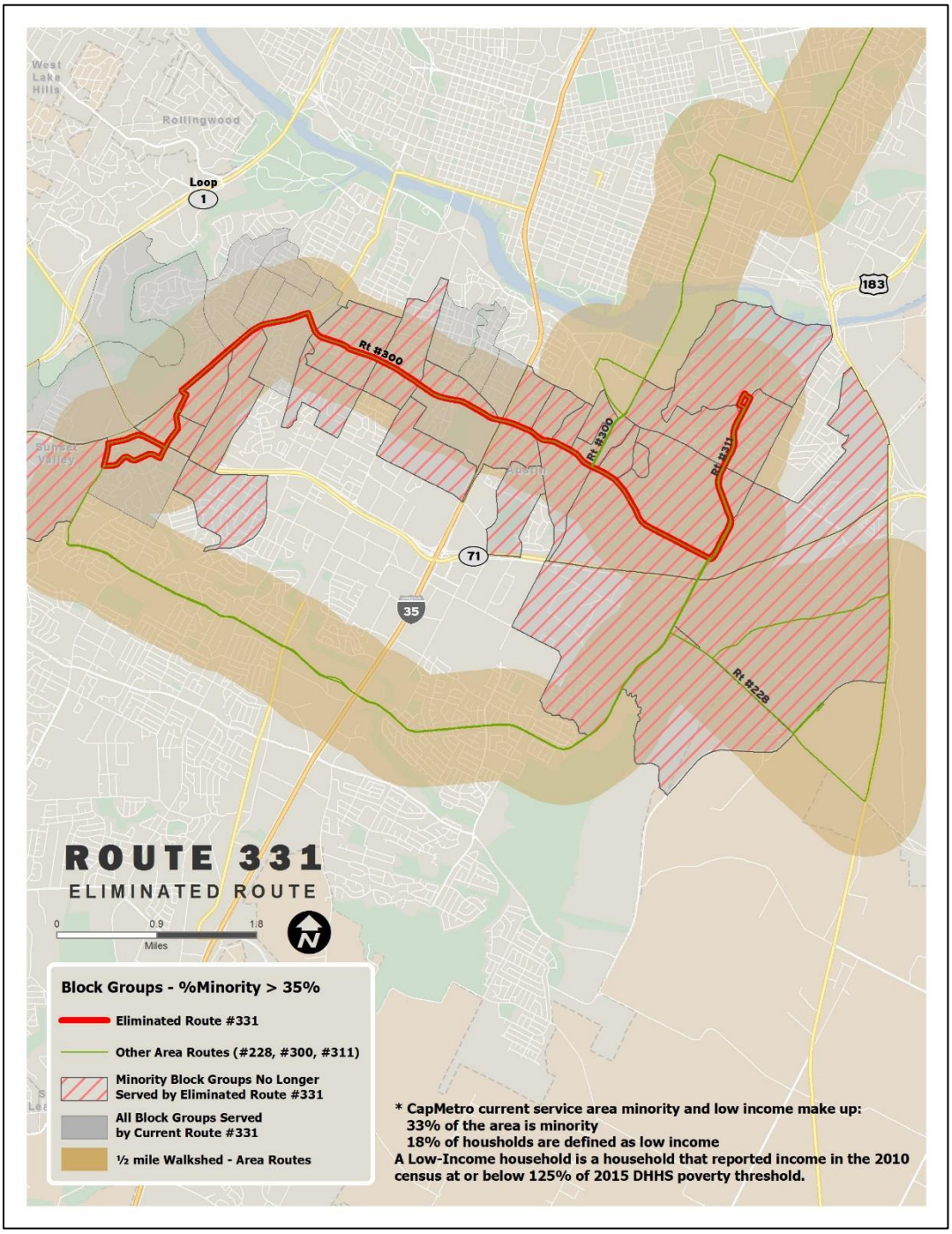

As shown in **Figure 25**, Route 275 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 275 currently provides service to 29 minority block groups. However, all of these block groups would be directly served by proposed Route 1 as this route follows the same corridor as current Route 275, so bus service would still be accessible to people living within these block groups.

**Figure 26: Capital Metro Bus Route 320 (Planned for Elimination)**




As shown in **Figure 26**, Route 320 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 320 currently provides service to 60 minority block groups. However, all of these block groups are within a one-half mile walk of mitigation routes 7, 19, and proposed mitigation routes 17, 300, 322, 335, 337, 345, so bus service would still be accessible to people living within these block groups.

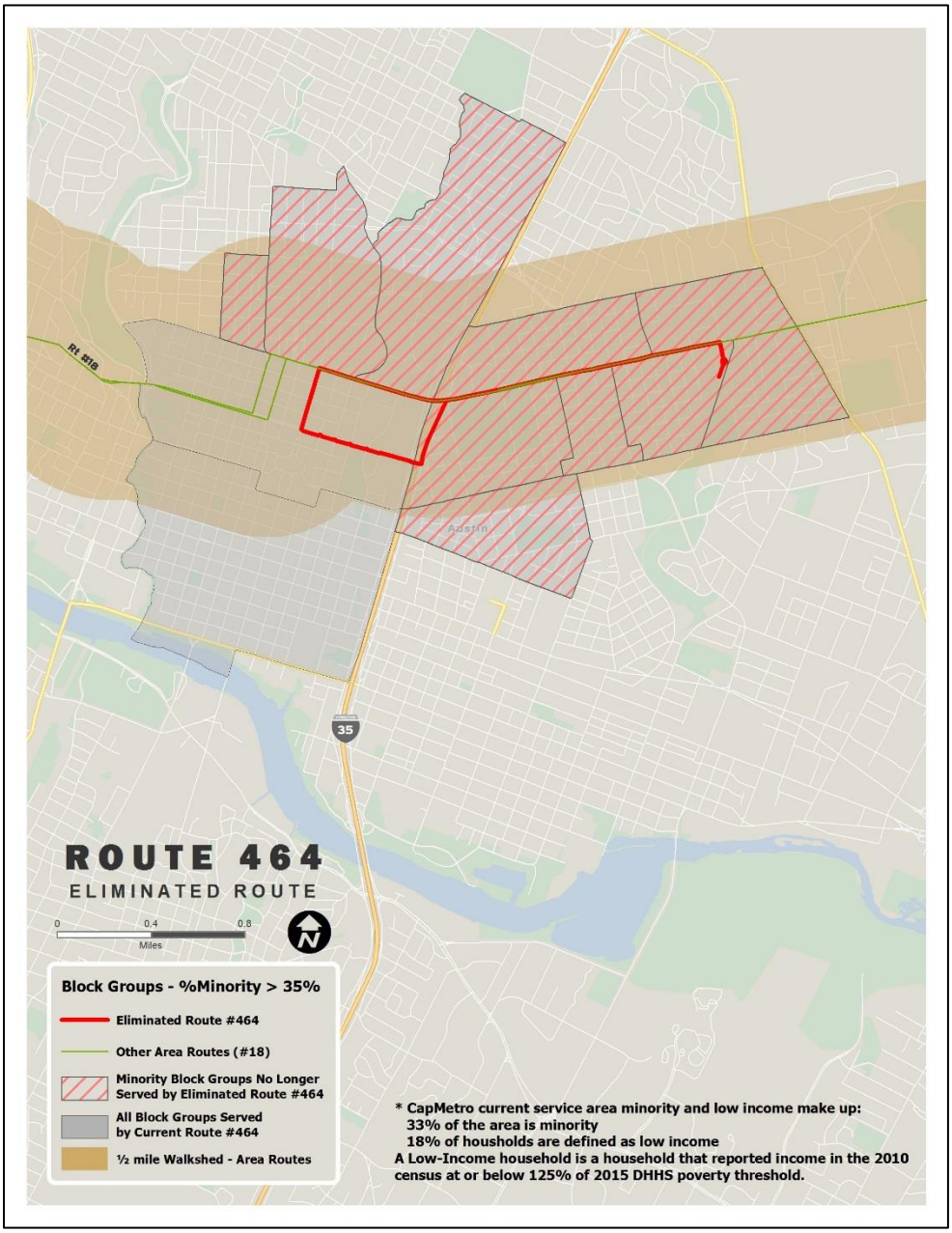
**Figure 27: Capital Metro Bus Route 331 (Planned for Elimination)**




As shown in **Figure 27**, Route 331 would be combined with proposed High Frequent Route 300 as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 331 currently provides service to 31 minority block groups. However, all of these block groups would be directly served by mitigation Routes 228, 300, and 311 as these routes serve the same corridor as current Route 331, so bus service would still be accessible to people living within these block groups. Additionally, service frequency on Route 311 would increase from

every 30 minutes to every 15 minutes, so proposed Route 311 would provide better access from a service characteristics standpoint in this area as well.

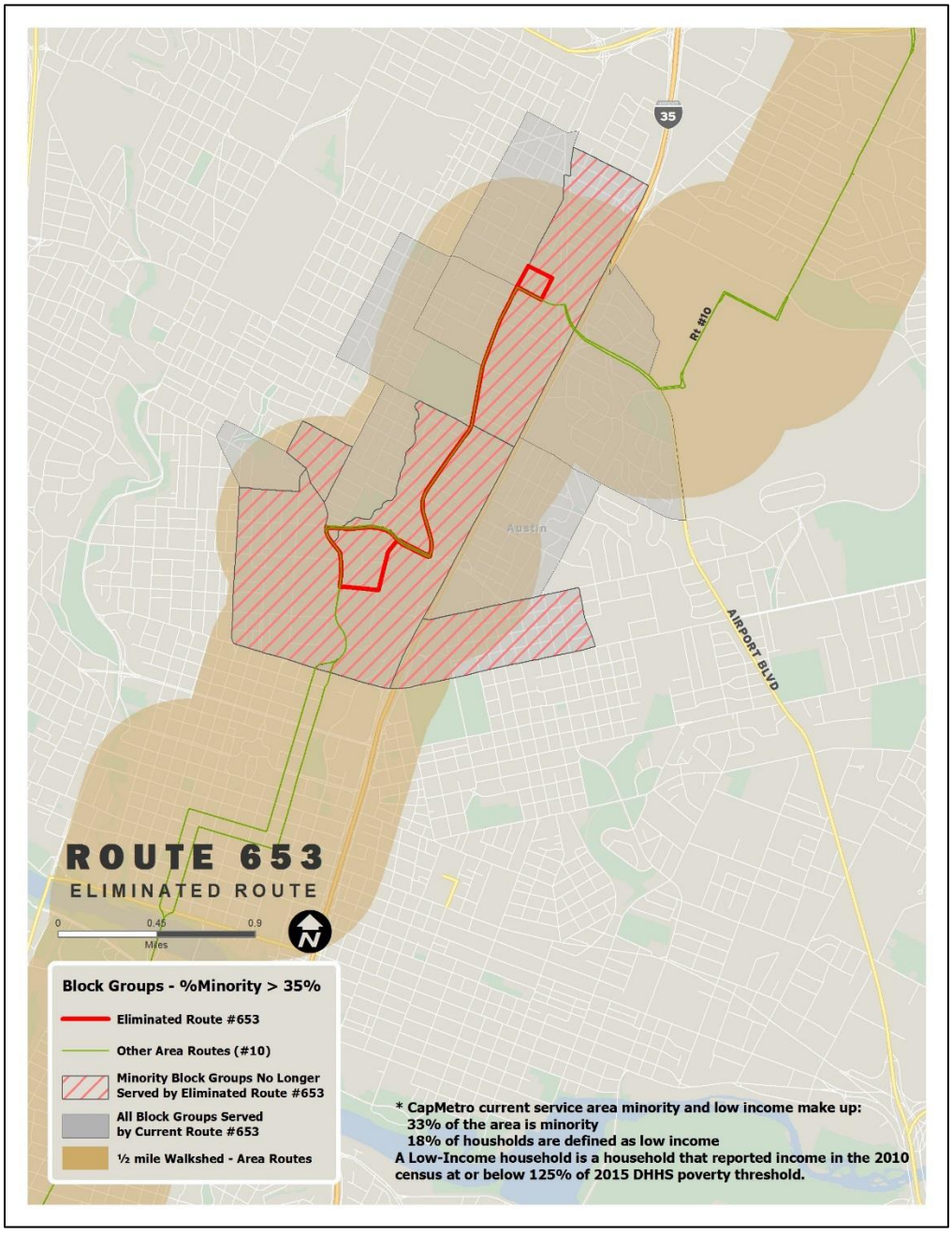
**Figure 28: Capital Metro Bus Route 464 (Planned for Elimination)**




As shown in **Figure 28**, Route 464 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 464 connects the MLK Redline station to the Capitol Complex and currently provides service to 10 minority block groups. However, all of these block groups would be directly served by mitigation Route 18 as this route serves the same corridor as current Route 464, so frequent bus service would still be accessible to people living within these block groups. Additionally, service frequency on Route

18 would increase from every 30 minutes to every 15 minutes, so proposed Route 18 would provide better access from a service characteristics standpoint in this area as well.

**Figure 29: Capital Metro Bus Route 653 (Planned for Elimination)**




As shown in **Figure 29**, Route 653 would be eliminated as part of the Connections 2025 service changes to be implemented in June 2018. The existing Route 653 is a UT Shuttle route connecting students to campus and currently provides service to six minority block groups. However, all of these block groups would be directly served by proposed Route 10 as this route serves the same corridor as current Route 653, so frequent bus service would still be accessible

to people living within these block groups. Additionally, service frequency on Route 10 would increase from every 30 minutes to every 15 minutes, so proposed Route 10 would provide better access from a service characteristics standpoint in this area as well.

**Table 3** below provides results for new proposed bus routes planned for implementation in June 2018.

**Table 3: Equity Analysis Results of Proposed New Bus Routes**

| Route Number | Route BGs Total Population | Route BGs Minority Population | Route BGs % Minority | Service Area % Minority | Route % Minority Minus Service Area % Minority | Potential Minority Impact | Route BGs Poverty Households | Route BGs Total Households | Route BGs % Low Income | Service Area % Low Income | Route % Low Income Minus Service Area % Income | Potential Low Income Impact |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105 | 61,426 | 23,556 | 38.35 | 33 | 5.35 | No | 963 | 26,198 | 3.68 | 18 | -14.32 | Yes |
| 310 | 45,033 | 32,370 | 71.88 | 33 | 38.88 | No | 2,368 | 20,008 | 11.84 | 18 | -6.16 | Yes |
| 315 | 47,719 | 19,201 | 40.24 | 33 | 7.24 | No | 978 | 22,601 | 4.33 | 18 | -13.67 | Yes |
| 324 | 58,445 | 40,081 | 68.58 | 33 | 35.58 | No | 3,289 | 24,460 | 13.45 | 18 | -4.55 | Yes |
| 335 | 35,510 | 10,413 | 29.32 | 33 | -3.68 | Yes | 662 | 17,109 | 3.87 | 18 | -14.13 | Yes |
| 339 | 40,272 | 33,738 | 83.78 | 33 | 50.78 | No | 2,547 | 15,702 | 16.22 | 18 | -1.78 | No |
| 345 | 19,671 | 5,200 | 26.43 | 33 | -6.57 | Yes | 268 | 10,405 | 2.58 | 18 | -15.42 | Yes |

Source: HNTB, October 2017.

As shown in **Table 3** there are seven new bus routes proposed for implementation as part of the Connections 2025 service changes. Five of these routes will provide additional services to high minority areas (as shown on Figures 30-34) while Routes 335 and 345 will provide services to minority populations that are just below the threshold of 33%. Ultimately, all of these routes will bring significant benefits to minority populations since a very high minority population will have access to these new routes. Although these routes will travel through minority areas, they may not cover very high low-income areas. So, we may see a lower degree of adverse effect on low-income populations since the benefits from these additional services may not reach to them proportionately.

**Figure 30: Capital Metro Bus Route 105 (New Service)**

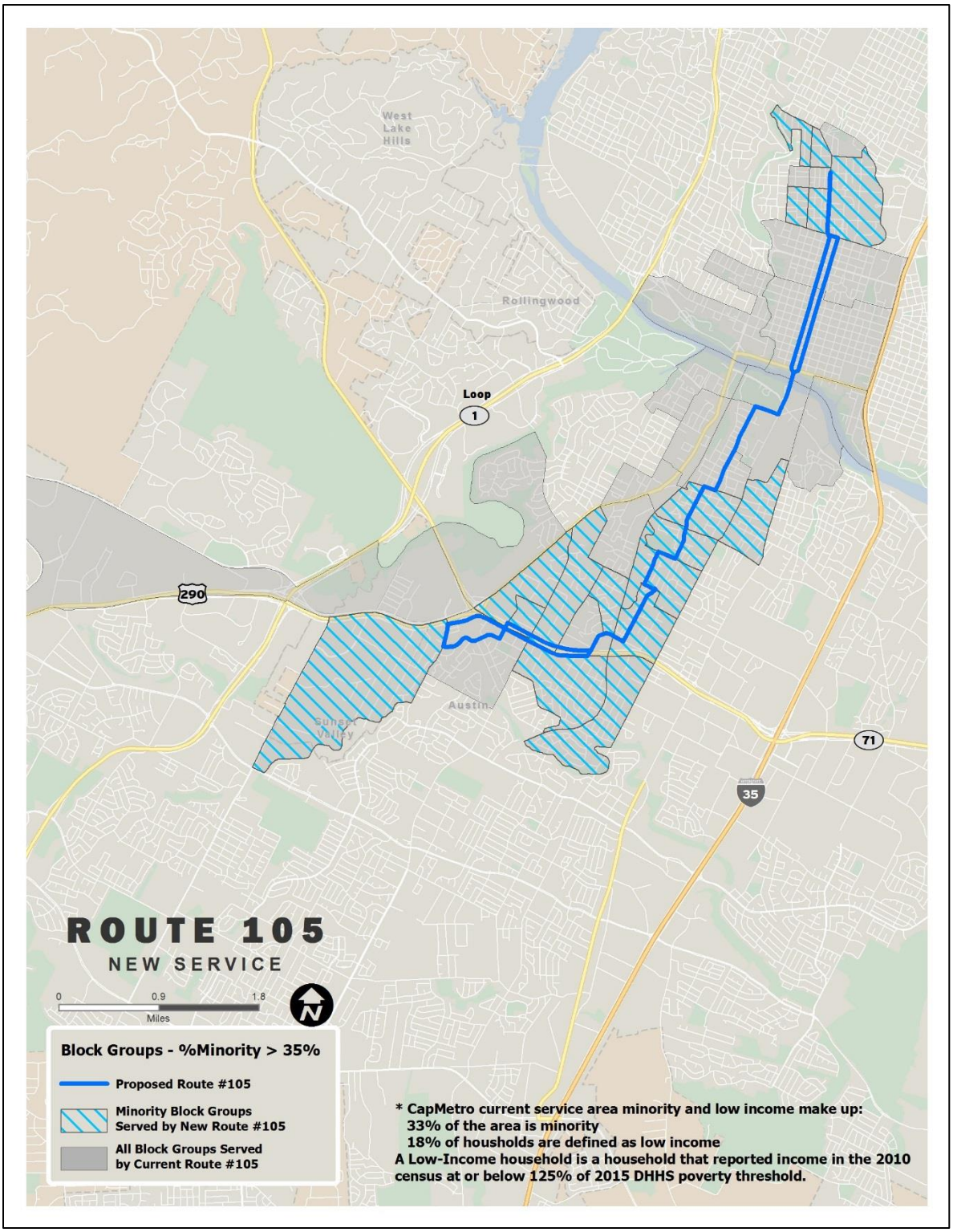


**Figure 31: Capital Metro Bus Route 310 (New Service)**

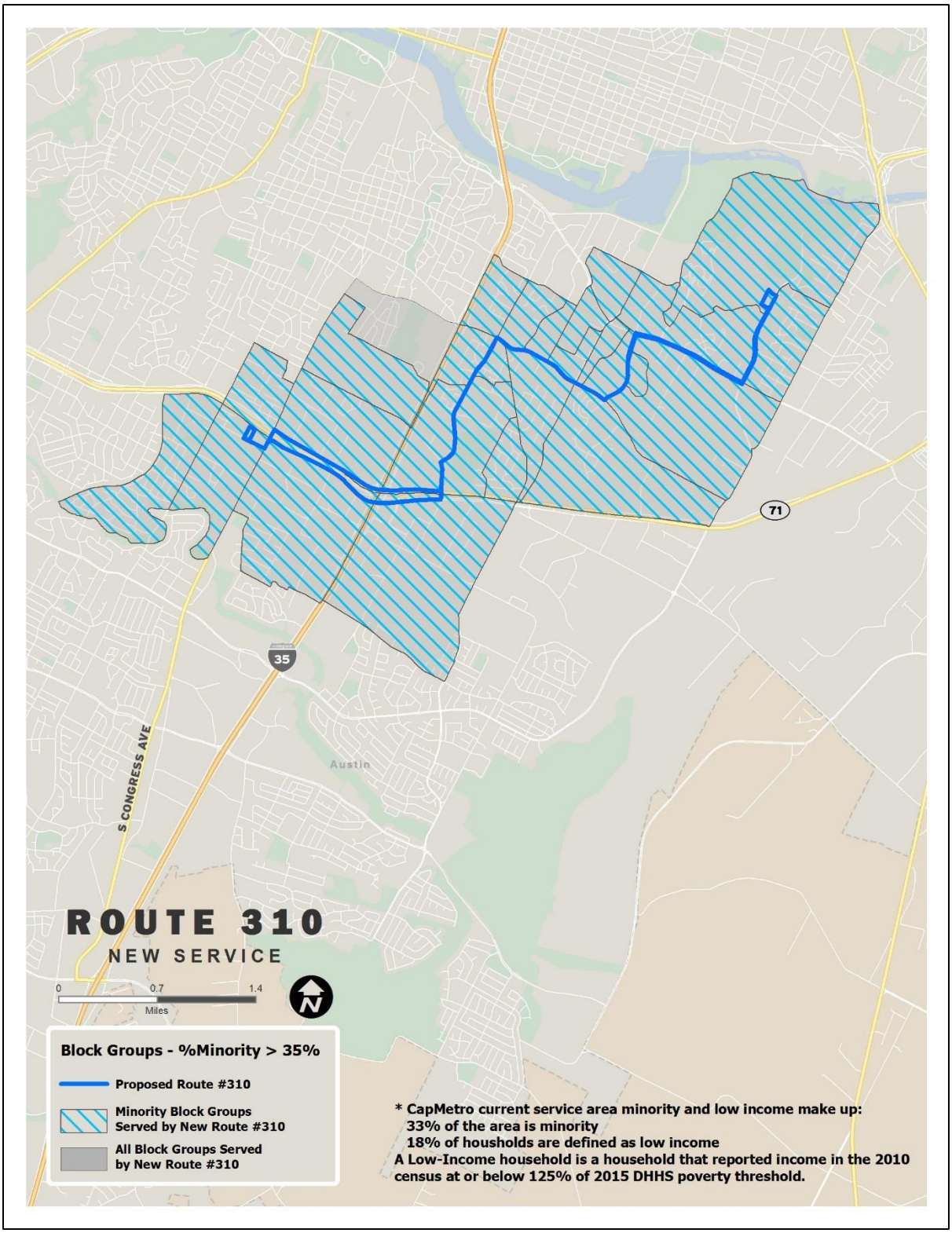


**Figure 32: Capital Metro Bus Route 315 (New Service)**

**Figure 33: Capital Metro Bus Route 324 (New Service)**

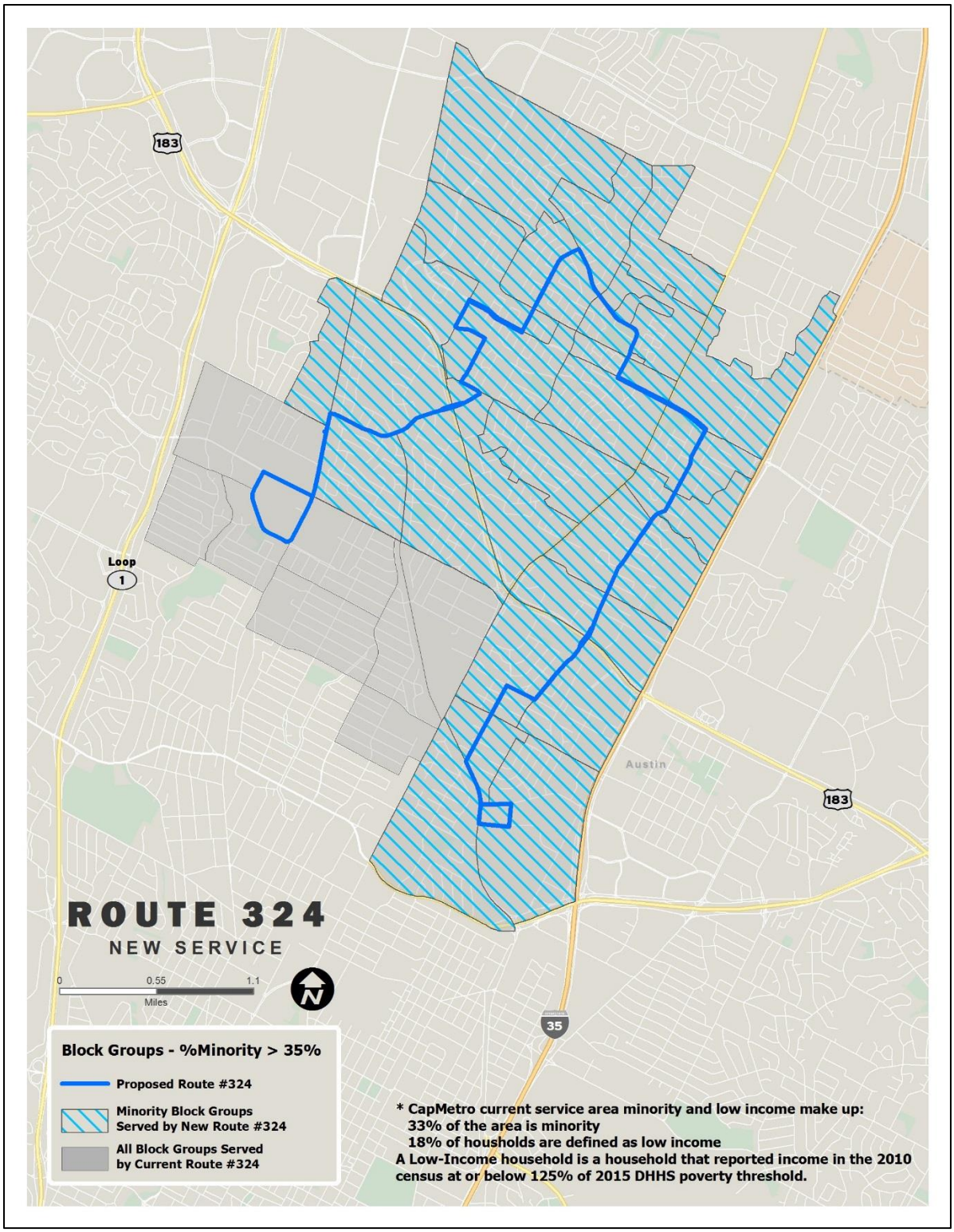
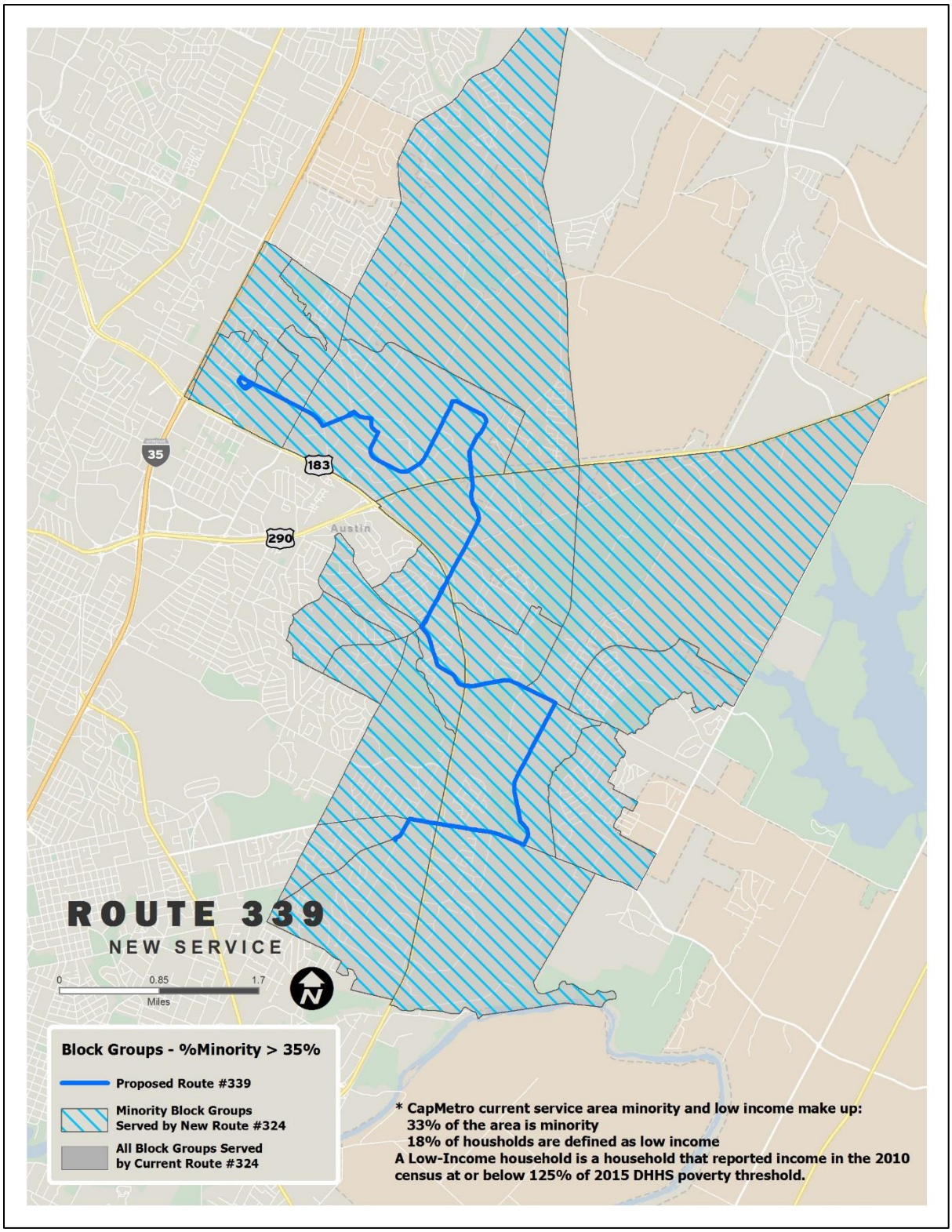


**Figure 34: Capital Metro Bus Route 339 (New Service)**



# VI. Conclusion

When we considered individual changes, a potential disparate impact on minority populations was found for 11 of 13 routes that are proposed to be eliminated and 18 of 20 routes that are proposed for major service changes based on the policy thresholds for consideration. The potential disparate impacts are mitigated on almost all of the eliminated routes as these routes will be replaced or served by one or multiple new or changed routes. Similarly, most of the modified routes will be replaced or served by one or multiple routes. In fact, eight of those modified routes will have a significant frequency increase that will bring benefits of this service change to minority populations. In addition, there are five new routes that will provide services to significantly high minority population areas.

No disproportionate burden on the low-income population was found for any proposed eliminated and modified routes. When the new proposed routes are analyzed in isolation from the other proposed changes, the analysis identifies a potential for an adverse effect on the low-income population since the proposed new routes will not travel through many low-income areas. So, the benefits of the new routes may not go to low-income population proportionately. However, these new routes will greatly benefit identified minority populations and the increased frequency and other service improvements and modifications of the proposed changes will bring significant improvements in service to areas with high concentrations of low-income individuals.

Throughout the planning process, staff evaluated each change to determine whether any adverse effects would occur on minority or low-income populations. We applied "Avoid, Minimize, and Mitigate" principles to reduce disproportionate impacts. When staff did find a change that would impact one of these groups, available alternatives were identified including alternate trips and services that could provide comparable service. After considering public comments and other resources, the impact from the final proposed route changes has been reduced compared to the initial proposal. Appendix A on pages 65-68 provides information on how we considered public comments in order to finalize the route changes. In the final proposal, there are 13 routes proposed for elimination instead of 17, twenty (20) routes will see major changes instead of 22, and seven new routes will be added instead of five.

Capital Metro's responsibility is to guarantee that all transit service, and access to its facilities, are equitably distributed and provided without regard to race, color, or national origin. Capital Metro's goal is to also ensure equal opportunities to all individuals to participate in all local, sub regional and regional transit planning and decision-making processes. Capital Metro recognizes the importance of ensuring that internal processes, procedures, and policies for conducting any Title VI Equity analyses are clearly defined. Moving forward, we will review, assess, and propose any update or revision needed for our existing policies, procedures, and/or thresholds related to Title VI Equity Analysis to ensure that the census data and procedures include recent demographics of Austin area as permitted by the FTA Circular.

Capital Metro has conducted extensive public outreach regarding these proposed service changes. In the future, we will ensure that the equity analysis is available to the public through our website, social media, and other sources. We can also conduct a survey once the service is implemented to assess how the changes have affected riders.

As outlined in the FTA Circular 4702.1B, transit agencies "can implement major service changes or reductions that would have disproportionately high and adverse impacts provided that the recipient demonstrates that the action meets a substantial need that is in the public interest and that alternatives would have more severe adverse effects than the preferred alternative".

All of these changes are designed to improve the entire transit system as a whole, including riding experience and operating efficiency. The number of minority and low-income people within the current Capital Metro service area, who will have faster, more reliable access to employment, healthcare, education, social services, and recreation opportunities available through these upcoming service changes, far exceeds the number of people potentially negatively affected by this change. Overall, the proposed service changes will have a positive impact within the system because of the level of investment proposed to increase capacity through additional trips on existing services. Based on this analysis, Capital Metro believes that these proposals do not violate federal mandates.

# APPENDIX

**Appendix A - Consideration of Public Comments in the Planning Process**

| Route | Public Comment | Revise | Rationale |
|---|---|---|---|
| 5 | Provide direct service to Criss Cole Center | **Yes** | Reduces duplication on Medical Pkwy |
| 5 | Operate in addition to UT Shuttle on Speedway | No | UT Shuttle available / within quarter-mile of Frequent Route 7 (5 minute walk) and third of a mile of Route 1/MetroRapid 801 (6 minute walk) |
| 7 | Serve Greyhound Station | No | Within quarter-mile of Frequent Route 7 (5 minute walk) |
| 7 | Keep Route 7 on Friedrich to Woodward | **Yes** | Preserves access to employers and businesses |
| 17 | Maintain service on Vargas (residential street) instead of proposed Montopolis (mixed use street) | No | Within quarter-mile of Frequent Route 17 (5 minute walk) |
| 21/22 | Do not eliminate Routes 21/22 | No | All stops within a half-mile of Frequent Routes 4, 17, 18, 20 & 335; Route 322; and UT Shuttle 663 |
| 105 | Provide school trips to Small M.S. | No | Transfers available via Route 315 |

| Route | Public Comment | Revise | Rationale |
|---|---|---|---|
| 333 | Serve Perez Elementary School | No | Serves less than 13 boardings per day / Decreasing ridership with no growth potential |
| 350 | Preserve service to Met Center | **Yes** | Extend Route 271 to serve Met Center / Serves over 50 boardings per day at Met Center |
| 383 | Preserve service to Anderson Mill neighborhood, Lakeline Mall, and NLTC | **Yes** | Serves over 180 boardings in Anderson Mill / Lakeline Mall and 375 boardings at NLTC (Cost balanced by uncoupling from Route 392) |
| 392 | *Staff initiated* | **Yes** | Route reinstated. Service would end at Burnet instead of Great Hills (served by Route 383) / Frequency adjusted to every 40 minutes |
| 490<br>491<br>492 | Continue to operate service at least one day a week | **Yes** | Other service available that operates 7 days per week |

| Route | Public Comment | Revise | Rationale |
|---|---|---|---|
| 240 | Serve St. David's Medical Center North | No | Serves less than 25 boardings per day |
| 243 | Continue to operate on Heatherwilde | **Yes** | Reduces duplication on Howard and preserves current route at no additional cost (Cost balanced by reducing frequency to every 40 minutes) |
| 271 | Continue serving ACC Riverside | **Yes** | Operator input / Ability to transfer to multiple routes at ACC Riverside |
| 300 | Preserve Route 300 service on Rogge (residential street) instead of proposed 51st (mixed use street) | No | Within a half-mile of Frequent Routes 10, 20 & 300 (10 minute walk) |
| 315 | Serve Oak Hill Shopping Center | **Yes** | Serves major destination with no significant route deviation |
| 323 | Preserve service on Tuscany Way | **Yes** | New Route 339 Tuscany providing 60 minute service (Cost balanced by removing proposed Route 323 extension to Far West - covered by Route 19) |

| Route | Operator Comment | Revise | Rationale |
|---|---|---|---|
| 17 | Maintain service between Capital Metro and downtown for operator reliefs (currently provided by Route 17) | No | Within quarter-mile of Frequent Route 4 located at 7th & Pleasant Valley (5 minute walk) / Proposed Frequent Route 4 stops at 8th and Lavaca (current served by Route 17) and 7th and Colorado (new) |
| All Routes | Ensure adequate recovery time | N/A | Run time and recovery time will be evaluated as part of the schedule development process |
| All Routes | Ensure comfort stops at the end of each route | N/A | Continue to provide at CMTA facilities / work with private entities on case by case basis |

U.S. Department
of Transportation
**Federal Transit
Administration**

Headquarters

East Building, 5th Floor – TCR
1200 New Jersey Avenue, SE
Washington, DC 20590

April 26, 2018

Zenobia Joseph
P.O. Box 143832
Austin, TX 78714-3832

Re: FTA Complaint No. 17-0326

Dear Ms. Joseph:

This letter responds to your complaint against Capital Metropolitan Transportation Authority (CapMetro) alleging discrimination on the basis of race, color, or national origin. The Federal Transit Administration (FTA) Office of Civil Rights is responsible for ensuring that providers of public transportation comply with Title VI of the Civil Rights Act of 1964 (Title VI), as implemented by the U.S. Department of Transportation (DOT) at 49 CFR Part 21, and FTA Circular 4702.1B, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients."

In the FTA complaint process, we analyze allegations for possible Title VI deficiencies by the transit provider. If deficiencies are identified, we work with the transit provider to correct them within a predetermined timeframe. If FTA cannot resolve the apparent violations of Title VI or the DOT Title VI regulations by voluntary means, formal enforcement proceedings may be initiated against the public transportation provider, which may result in the suspension or termination of federal funds. FTA may also refer the matter to the U.S. Department of Justice for enforcement.

**Allegations**

In your complaint, you allege that CapMetro did not comply with Title VI requirements with regard to its Connections 2025 transit plan. Specifically, you mention that CapMetro has refused to conduct service equity analyses, and this refusal would result in a disparate impact on the minority population. You describe communicating this matter to CapMetro via writing and in-person multiple times between November 2016 and February 2017, and you describe an occasion in which were not given an opportunity to speak to the CapMetro board.

After receiving your complaint, FTA sent a request for information to CapMetro. FTA's findings are discussed below.

**Analysis**

All FTA recipients must ensure that "[n]o person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program to which [Part 21] applies." 49 CFR 21.5(a). The DOT Title VI regulations require recipients to ensure that race, color, or national origin are not used

as a basis to "[p]rovide any service, financial aid, or other benefit to a person which is different, or is provided in a different manner, from that provided to others under the program." 49 CFR 21.5(b)(1)(ii).

FTA requires all recipients to integrate Title VI considerations into their established public participation plans to ensure minority and low-income communities have an opportunity to engage in local transportation decision-making processes. We do not set forth the details of a local public participation effort; rather, the Circular notes that "recipients have wide latitude to determine how, when, and how often specific public participation activities should take place, and which specific measures are most appropriate." FTA Circular 4702.1B, Chap. III, Section 8.

In addition, we require transit providers that operate 50 or more vehicles in peak service and are located in an urbanized area (UZA) of 200,000 or more in population to prepare and submit service and fare equity (SAFE) analyses prior to implementing major service or fare changes. FTA Circular 4702.1B, Chap. IV, Section 7. A transit provider that does not meet this threshold is responsible for complying with the DOT Title VI regulations that prohibit disparate impact discrimination, and therefore should review its policies and practices to ensure its service and fare changes do not result in a disparate impact based on race, color, or national origin.

In this case, we find no Title VI deficiency by CapMetro with regard to the allegations set forth in your complaint. Connections 2025 is CapMetro's transit system study, which looks at short-term and longer-term transit needs. The goal of the Connections 2025 is to provide more frequent service throughout the service area by reducing duplicative service. CapMetro provided documentation to FTA of public participation that ensured it engaged minority and low-income communities regarding Connections 2025 and related service changes. Between December 2015 and November 2017, public participation included convening two stakeholder advisory committees, holding three rounds of public meetings at varied times and locations, and attending numerous neighborhood association meetings and community events. CapMetro also conducted at-stop and onboard outreach at high ridership stops and in low-income and minority areas. With regard to your allegation, we cannot verify the specifics of whether you were not recognized to speak before the CapMetro board. However, the record indicates that you raised this matter at least five other times in person or in writing.

CapMetro meets the threshold for conducting a SAFE analysis prior to implementing major service or fare changes because it operates more than 50 vehicles in peak service and is located in the Austin UZA of more than 200,000 in population. The purpose of conducting a SAFE analysis prior to implementation is to determine whether those planned changes will have a discriminatory impact based on race, color, or national origin. However, the requirement to conduct a SAFE analysis applies to planned changes and not to merely recommended changes. Therefore, we distinguish between a recommended service change arising from a transit study and a planned or proposed service change that an agency is in the process of implementing. Here, Connections 2025 made service recommendations that were divided into four implementation phases spread over 10 years. These recommendations were not meant to be implemented without further study, public participation, and board approval. Because these were recommendations, CapMetro was not required to conduct a SAFE analysis until prior to implementing an actual major service or fare change. Accordingly, CapMetro is not required to conduct a SAFE analysis for all service and fare changes recommended in Connections 2025. Rather, CapMetro is only required to conduct SAFE analyses for those major service or fare changes for which it planned to implement.

CapMetro provided documentation of three SAFE analyses it conducted for major service and fare changes arising from Connections 2025. As an initial matter, CapMetro's board-approved disparate impact, disproportionate burden, and major service change policies comply with the requirements set out in the Circular; CapMetro has set thresholds to identify and policies to avoid, minimize, or mitigate disparate impacts and disproportionate burdens, which serve the purposes of Title VI. Using those policies, CapMetro conducted the three SAFE analyses and submitted them to its Board of Directors for consideration each time it sought approval to implement any of the major service or fare changes that were recommended by Connections 2025. The SAFE analyses adequately analyzed data, assessed service and fare impacts, and analyzed modifications to avoid, minimize, or mitigate potential disparate impacts. The three SAFE analyses complied with the requirements of the Circular.

Although CapMetro identified several route eliminations that had potential disparate impacts, it replaced substantially all of the eliminated service, often with more frequent service. As a result, the total minority and low-income population within 5- and 10-minute walks of frequent service substantially improved. For example, with the proposed June 2018 service changes, the total minority population within 5 minutes of a bus stop with frequent service will increase from 60,000 currently to 110,000, which is an increase of 50,000 minority persons. Further, CapMetro acknowledged that although 0.6 percent of its existing customers will be further than a 10-minute walk to transit service with the service changes, 80 percent of its existing ridership will have access to frequent service (compared to 50 percent currently). This benefit includes an increase from two to six frequent routes on Austin's east side, where a substantial population of minority and low-income individuals reside. Accordingly, we find no Title VI deficiencies with regard to the SAFE analyses CapMetro has conducted to date in relation to Connections 2025.

**Conclusion**

The information gathered during our investigation does not support a finding that CapMetro violated Title VI requirements in implementing parts of its Connections 2025 transit plan. The record shows CapMetro complied with the applicable DOT Title VI regulations and FTA Title VI guidance. Although CapMetro identified potential disparate impacts arising from route eliminations, it has shown that it has not only avoided, minimized, or mitigated those impacts but has substantially improved service for minority and low-income individuals.

This concludes the processing of your complaint. If you have any questions, please contact our toll-free civil rights hotline at (888) 446-4511 and we will be glad to talk with you.

Sincerely,

Dawn Sweet
Director, Headquarters Operations Division
Office of Civil Rights

cc: CapMetro
FTA Region 6

Date: October 15, 2018
Continued From: N/A
Action Requested: Information

| | |
|---|---|
| **To:** | Transportation Policy Board |
| **From:** | Mr. Ashby Johnson, CAMPO |
| **Agenda Item:** | 8 |
| **Subject:** | Presentation on Regional Incident Management Study |

## RECOMMENDATION

None. This item is for information purposes only.

## PURPOSE AND EXECUTIVE SUMMARY

CAMPO is currently in the final phases of developing the Regional Incident Management Strategic Plan and Performance Assessment. The study recommendations and draft report have been guided and reviewed by a Project Steering Committee which includes TxDOT, CTRMA, Hays County, Travis County, City of Austin and the City of Round Rock. The draft report has also been peer reviewed by experts at the Texas Transportation Institute (TTI). Outreach has included individual meetings with stakeholder agencies and three stakeholder workshops. To date more than 54 individuals from 20 different agencies have provided input into the plan, including local and state transportation, public safety, emergency management, and towing industry representatives.

The Regional Incident Management Strategic Plan and Performance Assessment study has identified 29 strategies, programs, and projects to support three goals:

- Reduce the impacts of incidents to travelers in the Region, including reduced roadway clearance time, incident clearance time, and time to return to normal traffic flow;
- Reduce secondary crashes in the Region; and
- Provide accurate and timely traveler information to travelers throughout the Region.

Recommendations have been categorized into seven areas: Policy, Communication and Coordination, Infrastructure, Response and Clearance Procedures, Training, Data and Performance Measures, and Public Engagement. Estimated costs for improvements in each of these areas vary from policy improvements which may have no direct costs associated with them to infrastructure improvements which may have substantial implementation costs. Responsibility for funding recommended improvements, should they be implemented, will fall primarily on the various lead agencies responsible for each.

A data-driven benefit-cost analysis has been conducted to quantify the potential return on investment to the Region for many of the proposed recommendations that were conducive to quantitative analysis. Funding and training opportunities to promote incident management strategies have also been identified.

A draft report for the Regional Incident Management Strategic Plan and Performance Assessment is currently being reviewed by stakeholders and the final report is expected in October 2018. Next steps include presenting to the Transportation Policy Board (TPB) for information in October, presenting the final report to the Technical Advisory Committee (TAC) in October for recommendation to the TPB, and presentation to the TPB for approval in November 2018.

## FINANCIAL IMPACT

None.

## SUPPORTING DOCUMENTS

CAMPO Regional Incident Management Strategic Plan and Performance Assessment Draft Report

Draft Report

# CAMPO

## Regional Incident Management Strategic Plan and Performance Assessment

September 2018

CAMPO
CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION
CENTRAL TEXAS

Kimley»Horn

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# EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

## Overview

The Capital Area Metropolitan Planning Organization (CAMPO) Regional Incident Management Strategic Plan and Performance Assessment presents the results of a collaborative regional planning effort to improve Traffic Incident Management (TIM) in the CAMPO region.

Traffic incidents are defined as unplanned randomly occurring traffic events that adversely affect normal traffic operations. Traffic incidents are one of the largest contributors to congestion in the CAMPO Region and have been shown to account for approximately one quarter of all delay nationwide. Traffic incidents also pose significant safety challenges by increasing the chances of secondary crashes and exposing first responders to the hazards of working near live traffic.

**Goals of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment**

- Reduce the impacts of incidents to travelers in the Region, including reduced roadway clearance time, incident clearance time, and time to return to normal
- Reduce secondary crashes in the Region
- Provide accurate and timely traveler information to travelers throughout the Region

To reduce the impact of incidents and improve safety in the CAMPO Region, a group of state, regional, and local transportation and public safety officials from Central Texas developed the CAMPO Regional Incident Management Strategic Plan and Performance Assessment. The plan builds on several successful TIM programs that currently exist in the Region and identifies new programs and strategies to continue improving TIM in Central Texas. Over 50 stakeholders from 21 different public and private sector agencies provided input into the plan through stakeholder interviews, project workshops, and document review.

## Findings

The CAMPO Region has made significant strides already to improve TIM processes and facilitate regional collaboration. For example, TIM stakeholders gather bimonthly as part of the AIMHigh (Austin Incident Management for Highways) Regional Incident Management Task Force to conduct after-action reviews for major incidents and raise awareness of major projects that affect the Region. The Texas Department of Transportation (TxDOT) operates a recently expanded safety service patrol program known as Highway Emergency Response Operator (HERO) that can clear disabled vehicles from travel lanes, provide traffic control at incidents, and assist stranded motorists. Multiple transportation and public safety agencies in the Region including TxDOT, Capital Metropolitan Transportation Authority, Travis County Sheriff, and the City of Austin Police and Fire Departments have formed a partnership to operate the Combined Transportation, Emergency and Communications Center (CTECC) located in Austin. Having traffic management, transit dispatch and public safety dispatch operators at one location gives

CTECC the ability to manage incidents across jurisdictional boundaries to improve safety and reduce congestion in the Region.

Despite the TIM progress that has been made in the CAMPO Region, major challenges still exist. For instance, quicker clearance times in the Region would reduce congestion and improve safety. Abandoned vehicles often remain on the shoulders of freeways for an extended period of time, posing a safety hazard and distraction to drivers. Incident clearance times could be reduced by streamlining towing dispatch and hazardous material spill cleanup across the Region. Sharing resources and data (such as traffic camera feeds) across agencies would better equip operators and responders for TIM procedures. Increased opportunities for ongoing interdisciplinary TIM training could improve implementation of TIM best practices through education and relationship building across agencies. These are just a few of the opportunities in the Region where increased investment in TIM programs and projects could ultimately lead to benefits such as reduced congestion, increased safety, and greater reliability of the transportation system.

## Recommendations

The CAMPO Regional Incident Management Strategic Plan and Performance Assessment includes 29 recommendations to improve TIM in the CAMPO Region, as shown in **Figure 1**. These recommendations fall into one of seven categories: Policy, Communication and Coordination, Infrastructure, Response and Clearance, Training, Data and Performance Measures, and Public Engagement. (See **Chapter 4** of this report for more information about each of these recommendations.)

To assist in prioritizing the TIM recommendations, a cost-benefit analysis was performed on selected recommendations that were conducive to quantitative analysis. Guidance was also provided on potential funding to implement the recommendations. Recommended performance metrics to track the Region's progress towards improving TIM were developed, which include:

- Roadway Clearance Time
- Incident Clearance Time
- Number and Severity of Secondary Crashes
- Survey of Traveler Information Satisfaction
- Incident Influence Time (Time to Return to Normal Flow)
- Percentage of Responders/Operators who have received TIM Training
- Rates of Injury or Fatality of First Responders on Incident Scene

| | RECOMMENDATIONS |
|---|---|
| POLICY | Develop Regional Open Roads Policy |
| | Develop a standardized HAZMAT and non-HAZMAT clean-up policy for the Region |
| | Create a position for a Regional TIM Coordinator |
| COMMUNICATION & COORDINATION | Develop standard operating procedures for TMC coordination throughout the Region |
| | Develop platform for shared viewing of all cameras and DMS throughout the Region |
| | Develop a regional repository for incident status available to all CAMPO agencies |
| | Expand sharing of computer-aided dispatch (CAD) data throughout the Region |
| INFRASTRUCTURE | Expand freeway lighting coverage |
| | Expand CCTV camera coverage on freeways |
| | Expand DMS coverage on freeways |
| | Deploy DMS on state routes in rural areas at key decision points in the CAMPO Region |
| | Expand arterial DMS coverage in the City of Austin |
| | Expand traffic signal preemption for emergency vehicles |
| RESPONSE & CLEARANCE | Expand HERO service patrol coverage to additional freeways |
| | Expand HERO service patrol coverage to regional arterials |
| | Implement rapid clear no-cost towing on freeways |
| | Implement rapid clear no-cost towing on regional arterials |
| | Implement centralized location-based towing dispatch throughout the Region |
| | Implement heavy-tow program throughout the Region |
| | Procure advanced crash investigation equipment for law enforcement throughout the Region |
| TRAINING | Support continued regional interdisciplinary TIM training |
| | Educate first responder agencies about capabilities of HERO service patrol vehicles |
| | Provide training for advanced crash investigation equipment to law enforcement throughout the Region |
| DATA & PERFORMANCE MEASURES | Standardize regional TIM data collection, data visualization, and performance measures |
| | Share regional TIM performance data between public agencies in data dashboard |
| PUBLIC ENGAGEMENT | Share regional TIM performance data with media and public in annual report and data dashboard |
| | Increase knowledge and support of HERO through public education efforts |
| | Raise awareness of statewide Steer It, Clear It law |
| | Improve traveler information quality through increased coordination with private sector providers |

Figure 1 - Recommendations
(See Figure 11 in Chapter 4 for addition detail on recommendations.)

# Next Steps

The CAMPO Regional Incident Management Strategic Plan and Performance Assessment developed a total of 29 recommendations to improve TIM in the CAMPO Region. Implementation of these recommendations will be led by CAMPO, TxDOT, municipalities or other agencies as discussed in Chapter 4.

To accelerate implementation of several recommendations that are expected to yield a high benefit-cost ratio and serve as foundation programs for other TIM activities, it is recommended that CAMPO take a leadership role to implement six key policies and programs in the near-term:

- **Develop a Regional Open Roads Policy**. Develop a Regional Open Roads Policy for review and approval by local law enforcement, first responder, and traffic management agencies throughout the Region.
- **Develop a Standardized HAZMAT and Non-HAZMAT Clean-up Policy for the Region**. Research national best practices and assemble stakeholder input to develop regional standards for the cleanup of incidents involving HAZMAT and non-HAZMAT spills.
- **Develop a Framework for a Regional Rapid Clear Towing Program**. Investigate the benefits to the Region of providing rapid clear towing for incident management, research possible funding mechanisms for such a program, and recommend a program implementation strategy.
- **Develop a Framework for an I-35 Heavy Tow Program**. Collaborate with CAMPO, TxDOT, and local agencies along I-35 in the CAMPO Region to develop a framework for a regionally administered heavy wrecker towing service available for use by any agency responding to a major incident on I-35.
- **Develop a Standardized Data Collection and Performance Measures Framework for the Region**. Assess data needs of specific agencies and develop a framework for integrating data sources so that TIM data can be collected and shared regionally to track performance.
- **Develop a Regional State of Traffic Incident Management Report**. Analyze existing TIM data from across the CAMPO Region and compare this data to established regional performance goals in a "State of TIM" report written for a public audience.

As the Region continues to work towards improved TIM in Central Texas, interdisciplinary collaboration is crucial. The extensive stakeholder involvement in the creation of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment is a testament to the fact that incident management does not rest on any one person's or one agency's shoulders. Successful implementation of the recommendations in the plan will depend on the Region's ability to continue to work together towards common goals such as reduced congestion and improved safety. Fortunately, stakeholders in the CAMPO Region have a strong foundation of TIM coordination and cooperation to build upon.

CHAPTER 1

# INTRODUCTION

# 1 | INTRODUCTION

## Overview

Over the past three decades the six-county Capital Area Metropolitan Planning Organization (CAMPO) Region has roughly tripled in population. While Central Texans may not always agree on the benefits of growth, nearly all agree that rapid growth has created serious transportation and mobility challenges for the Region. Traffic congestion and the resulting unreliability it creates in the transportation system can lead to frustration, lost productivity, and an overall decline in quality of life.

One of the greatest contributors to traffic congestion in the CAMPO Region are traffic incidents**. Traffic incidents are defined by the Institute of Transportation Engineers (ITE) as unplanned randomly occurring traffic events that adversely affects normal traffic operations**. With the road network already stretched beyond capacity, traffic incidents that unexpectedly close a road, block a lane, or cause traffic to slow down due to a distraction on the side of the road can have catastrophic effects on traffic flow. Traffic incidents also present serious safety challenges. Crash victims and first responders are extremely vulnerable while in the roadway during an incident. The chances of a secondary crash also escalate for every minute the traffic incident remains.

As community leaders struggle to find the funding necessary for the transportation infrastructure to keep pace with rapid growth of the Region, they have looked for other solutions that can help improve the safety, reliability, and efficiency of the transportation system. Improved Traffic Incident Management (TIM) is one of the most effective ways to decrease congestion resulting from unexpected incidents, and is a relatively low-cost way to decrease overall congestion. **Traffic incident management strategies allow transportation and public safety agencies to identify incidents more quickly, clear travel lanes faster, manage traffic around incident scenes more effectively, and provide advanced notice to travelers to help them avoid congestion due to traffic incidents.**

**Traffic Incident Management Saves Lives, Time and Money**

Every minute of incident delay multiplies traffic queues by a factor of 4.

The likelihood of a secondary crash increases by 2.8% for each minute the primary incident continues to be a hazard.

Faster response time has a well-documented relationship to the increased likelihood of crash survival.

In the CAMPO Region, traffic congestion and major construction programs that reduce capacity greatly increase the need to reduce roadway clearance times and preserve the capacity of roadways.

*Data Sources: FHWA*

The CAMPO Regional Incident Management Strategic Plan and Performance Assessment presents the results of a collaborative regional planning effort that involved state, regional, and local transportation and public safety officials from the Central Texas Region. The plan identifies recommendations to improve incident management capabilities and reduce the impact of incidents in the CAMPO Region. The plan also identifies performance metrics that can be used to track the Region's progress towards improved incident management and provides guidance for potential sources of funding.

# Study Goals and Objectives

CAMPO, in coordination with the Study Steering Committee and project stakeholders, identified three goals for the CAMPO Regional Incident Management Strategic Plan and Performance Assessment. The goals focused on reducing the impacts of incidents to travelers in the CAMPO Region, reducing secondary crashes in the Region, and providing accurate and timely traveler information so that travelers can make informed travel choices. Ultimately, the Region would like to prevent traffic incidents from occurring but the reality is events such as crashes, disabled vehicles, and debris blocking lanes will continue to impact the surface transportation system for the foreseeable future. Achieving the goals set in the CAMPO Regional Incident Management Strategic Plan and Performance Assessment will help minimize the impact of these incidents when they do occur.

### Goals of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment

- Reduce the impacts of incidents to travelers in the Region, including reduced roadway clearance time, incident clearance time, and time to return to normal
- Reduce secondary crashes in the Region
- Provide accurate and timely traveler information to travelers throughout the Region

To achieve the goals, five objectives were identified for the CAMPO Regional Incident Management Strategic Plan and Performance Assessment. The objectives focus on expanding the existing TIM efforts currently underway in the CAMPO Region as well as identifying new programs and strategies to improve TIM. As noted in Chapter 3, the CAMPO Region has established many successful TIM programs and strategies that should continue to be supported. But as discussed in Chapter 4, there are still many new opportunities to invest in new TIM programs and strategies that can further reduce the impacts of incidents on the surface transportation system. Objectives also focus on developing potential projects that can be included in CAMO's annual call for projects and identifying potential sources of funding to support new and ongoing programs and projects. Finally, stakeholders noted the importance of raising awareness of the benefits of TIM with both decision makers and the public. TIM is considered one of the most effective and low-cost tools to reduce congestion and improve safety, and it is important that the benefits of TIM are clearly understood when determining how best to invest funding in transportation improvements.

### Objectives of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment

- Identify opportunities to expand existing TIM programs and strategies
- Identify new TIM programs and strategies for implementation
- Develop projects to include in CAMPO's annual call for projects
- Identify sources of funding for TIM programs and projects
- Raise awareness of the benefits of improved TIM and increase support for investment in TIM programs and projects

# Study Structure and Input

The Capital Area Metropolitan Planning Organization (CAMPO) is the Metropolitan Planning Organization (MPO) for Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson Counties. The Region includes the urban core along the I-35 corridor, as well as rural counties to the east and west, as shown in **Figure 2**. CAMPO develops the 20-plus-year Regional Transportation Plan and the four-year Transportation Improvement Program planning document.

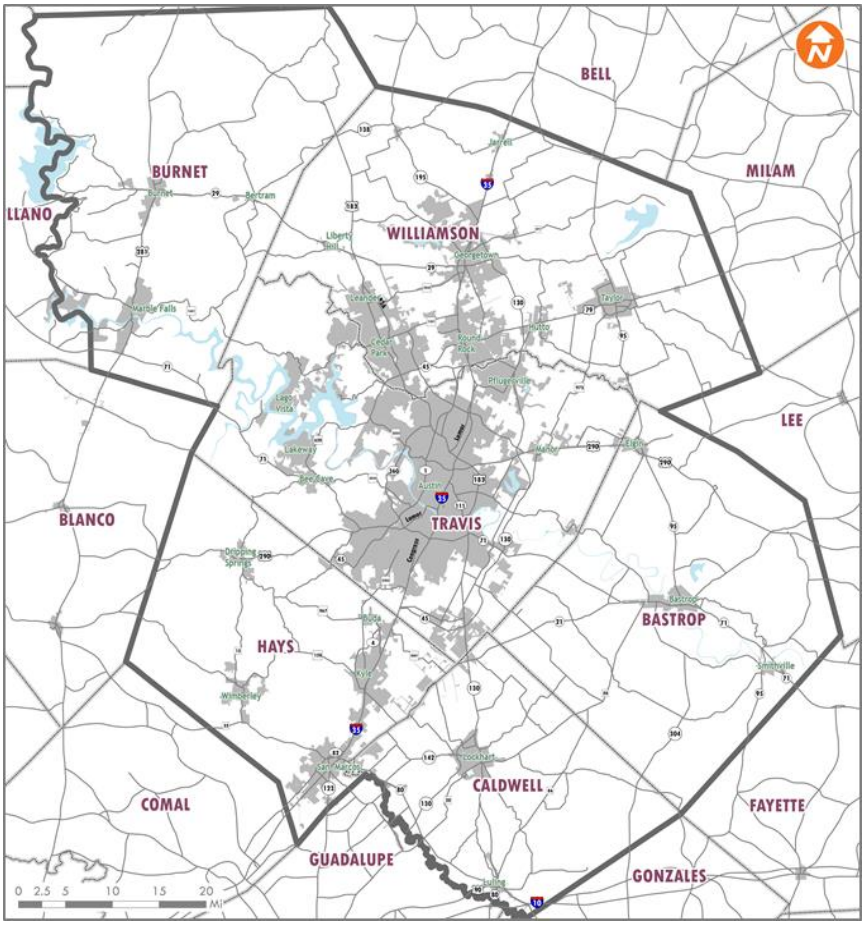



Figure 2 – CAMPO Region

The focus of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment was on the entire six-county CAMPO region, including freeways, state routes and arterials. Traffic incidents generally have the most detrimental impacts when they occur on the freeways that are at or near capacity. Much focus was placed on such freeways, but stakeholders also realized that state routes with limited alternatives and regional arterials, which carry must of the regions traffic and connect cities in urban areas, also are severely impacted by traffic incidents.

To provide oversight and guidance to the study, CAMPO created a Study Steering Committee comprised of representatives from eight agencies representing state, regional, county and municipal governments. The Study Steering Committee met throughout the project and provide the project team with guidance and review. Agencies participating in the Study Steering Committee included:

- CAMPO
- Bastrop County
- Central Texas Regional Mobility Authority (CTRMA)
- City of Austin
- City of Round Rock
- Hays County
- Travis County
- Texas Department of Transportation (TxDOT) Austin District

Development of the plan included involvement from 56 stakeholders representing 21 different public agencies and private service providers in the CAMPO Region with a stake in incident management. Participants included transportation, public safety, and tolling representatives from the public sector and towing representatives from the private sector. Stakeholders participated in the plan through individual agency interviews, attendance at stakeholder workshops, and review of the Draft CAMPO Regional Incident Management Strategic Plan and Performance Assessment report. The agencies and groups that participated in development of the plan are shown in **Table 1**.

**Table 1 – CAMPO Regional Incident Management Strategic Plan Stakeholders**

| State | Regional and County | Municipal |
|---|---|---|
| Texas Department of Public Safety<br>TxDOT Austin District including:<br>Traffic Operations<br>Serco HERO Patrol<br>Serco TMC Operations<br>TxDOT Toll Operations Division<br>TxDOT Traffic Operations Division (Including Statewide TIM Coordinator) | AIM High Regional Incident Management Group<br>Bastrop County<br>CAMPO Technical Advisory Committee<br>Combined Transportation, Emergency & Communications Center (CTECC)<br>CTRMA<br>Travis County Transportation & Natural Resources<br>Travis County Sheriff's Office | City of Austin Fire Department<br>City of Austin Police Department<br>City of Austin Police Department<br>City of Austin Transportation Department<br>City of Kyle Police Department<br>City of Round Rock Transportation Department<br>City of San Marcos Transportation Division |
| Other | | |
| AutoReturn | Circuit of the Americas | Texas Transportation Institute |

In addition to individual interviews with stakeholders, three stakeholder workshops were conducted in February, April, and May 2018. Workshops focused on the development of TIM recommendations, review of the cost-benefit analysis, and development of performance metrics. Presentations on the CAMPO Regional Incident Management Strategic Plan and Performance Assessment were also given to the Austin-area Incident Management for Highways (AIMHigh) Regional Incident Management Task Force, as well as to the CAMPO Technical Advisory Committee (TAC) and CAMPO Transportation Policy Board.

CHAPTER 2

# NEED FOR TRAFFIC INCIDENT MANAGEMENT IN THE REGION

# 2 | NEED FOR TRAFFIC INCIDENT MANAGEMENT IN THE REGION

Approximately 2 million people live in CAMPO's six-county region. As the population has grown rapidly over the last several decades, new strains on the regional transportation network have emerged. In 1982 the average automobile commuter in the region experienced 16 hours of traffic delay per year; by 2014 that average commuter delay had increased to 52 hours per year, or roughly one hour per week. For 2014, the Urban Mobility Scorecard prepared by the Texas Transportation Institute estimated a total annual traffic congestion cost of $1.14 billion to commuters in the CAMPO Region. Per auto commuter, this value translated to an annual cost of $1,159.

Prevalent traffic congestion in the CAMPO Region degrades both the safety and reliability of the regional transportation network. While limited roadway capacity is the largest contributor to traffic congestion in the United States, traffic incidents are the second largest contributing factor. The Federal Highway Administration (FHWA) estimates that traffic incidents are responsible for one quarter of the traffic congestion experienced across the country.

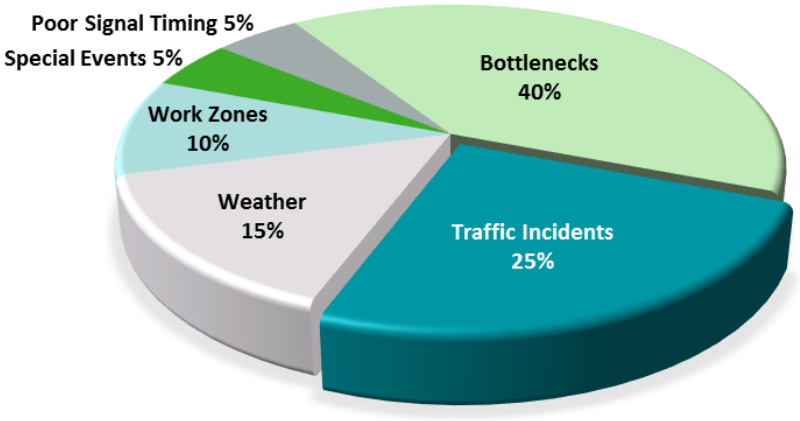



Figure 3 – FHWA Sources of Congestion

TIM strategies aim to reduce the amount of congestion caused by traffic incidents and the risk of secondary crashes. Many of these strategies focus on improving aspects of incident detection and response, or on reducing the duration or traffic impact of individual incidents. The Austin-area Incident Management for Highways (AIMHigh), a task force of agencies involved with incident management in Central Texas, identified TIM as one of the most effective tools for reducing delay and enhancing safety in their 2010 AIMHigh Strategic Plan.

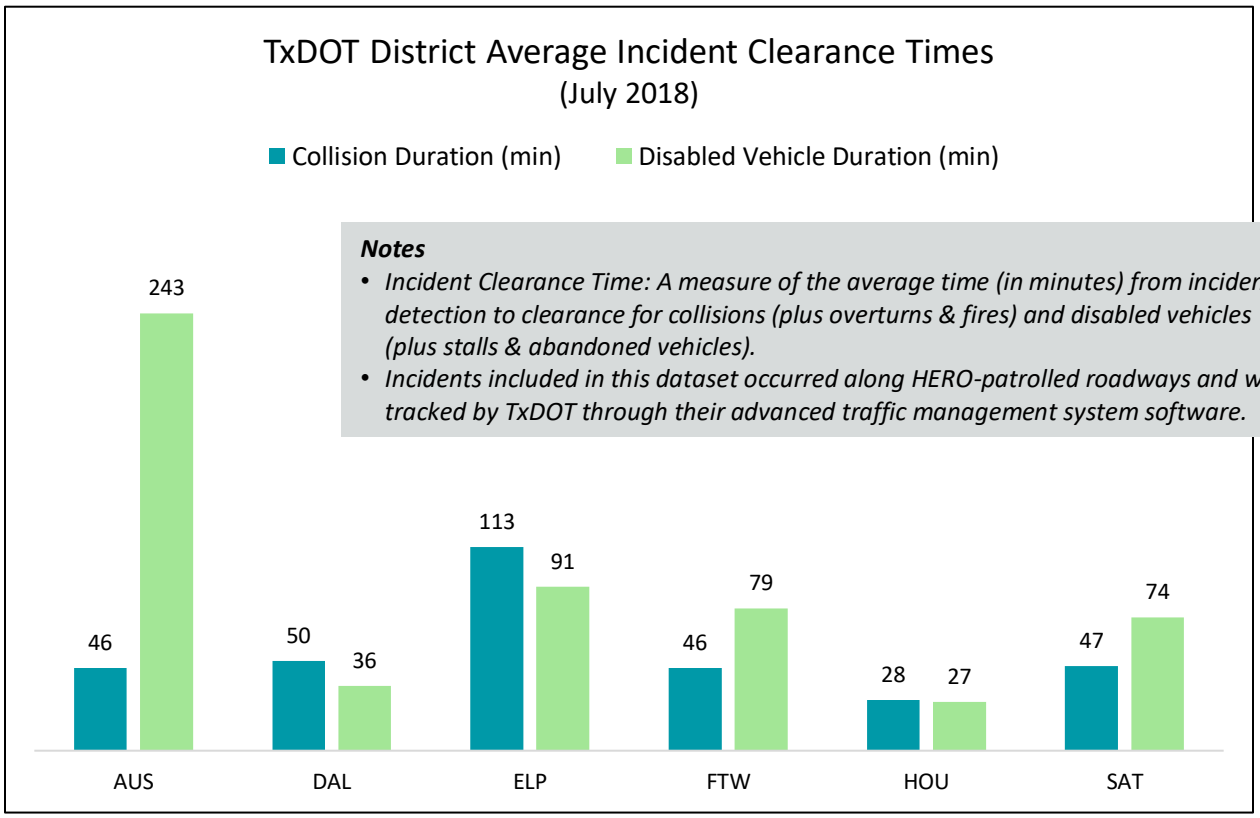
### What is Traffic Incident Management (TIM)?

The AIMHigh Strategic Plan from 2010 explains that "traffic incident management (TIM) is a systematic, planned, and coordinated approach to detect, respond to, and remove traffic incidents and restore traffic capacity as safely and quickly as possible. Involving law enforcement, fire and rescue, emergency medical services, transportation, towing and recovery, and other personnel—TIM is considered to be one of the most effective tools for reducing delay and enhancing safety."

Often, TIM strategies are much more cost-effective than congestion-reducing alternatives that involve building additional roadway capacity. As available funding for capacity improvements continues to be strained, low-cost congestion mitigation strategies such as TIM become more valuable.

Reviewing traffic incident data from across the state provides a snapshot of the opportunities for TIM improvement in the Austin area. TxDOT logs incident clearance times for collisions and disabled vehicles across the state. District-wide average clearance times for the six major districts are shown in **Figure 4** for the month of July 2018. Incident clearance time is a measure of the average time (in minutes) from incident detection to clearance for collisions (plus overturns & fires) and disabled vehicles (plus stalls & abandoned vehicles). Incidents included in this dataset for the TxDOT Austin District occurred along HERO-patrolled roadways and were tracked by Lonestar.

While reporting methods seem to vary (given the differences across Districts in total numbers of reported collisions and disabled vehicles), it is apparent that the 11-county TxDOT Austin District (which includes the six counties in the CAMPO Region) can improve the time to remove collisions and disabled vehicles from the roadway. It is worth noting that the Houston District, where the SafeClear towing program (recently rebranded as "Tow and Go") is implemented, has the lowest average clearance times, despite the highest number of reported collisions and disabled vehicles.




| Performance Metric | AUS | DAL | ELP | FTW | HOU | SAT |
|---|---|---|---|---|---|---|
| Reported Collisions | 365 | 996 | 75 | 271 | 1,037 | 402 |
| Reported Disabled Vehicles | 2,170 | 135 | 227 | 24 | 5,083 | 166 |

Figure 4 - TxDOT District Average Incident Clearance Times

CHAPTER 3

# EXISTING TRAFFIC INCIDENT MANAGEMENT ACTIVITIES IN THE REGION

# 3 | EXISTING TIM ACTIVITIES IN THE REGION

While there is a strong need to improve TIM in the CAMPO Region, much has already been accomplished. Legislation that supports key TIM activities is in place, regional collaboration to support TIM exists throughout the region, and programs such as the TxDOT HERO Safety Service Patrol directly support the goals of the TIM program. Locally many cities have implemented systems that can be used for improved incident management such as centrally controlled traffic signal systems that can allow traffic signal timing to be adjusted in response to incidents.

Rather than starting from a clean slate, the CAMPO Regional Incident Management Strategic Plan and Performance Assessment effort seeks to build on current TIM successes in the Region. The recommendations in this report support the TIM initiatives that stakeholders are already pursuing, like creating standardized performance measures, deploying additional Intelligent Transportation Systems (ITS) technologies on regional freeways and arterials, implementing heavy tow contracts for major incidents, and conducting interdisciplinary TIM training for transportation agencies and emergency responders.

Figure 5 – CTECC is an excellent example of state, county and municipal cooperation that has led to improved TIM in the CAMPO Region.

A summary of some of the key TIM successes in the CAMPO Region is presented in **Figure 6** on the following page and described in more detail below. Agencies in the CAMPO Region continue to seek innovative means to improve safety of travelers and reduce congestion related to incidents. The list of successes represents only a fraction of the good things that have been done in the Region and will grow each year as agencies continue to implement innovative strategies and programs to improve TIM.

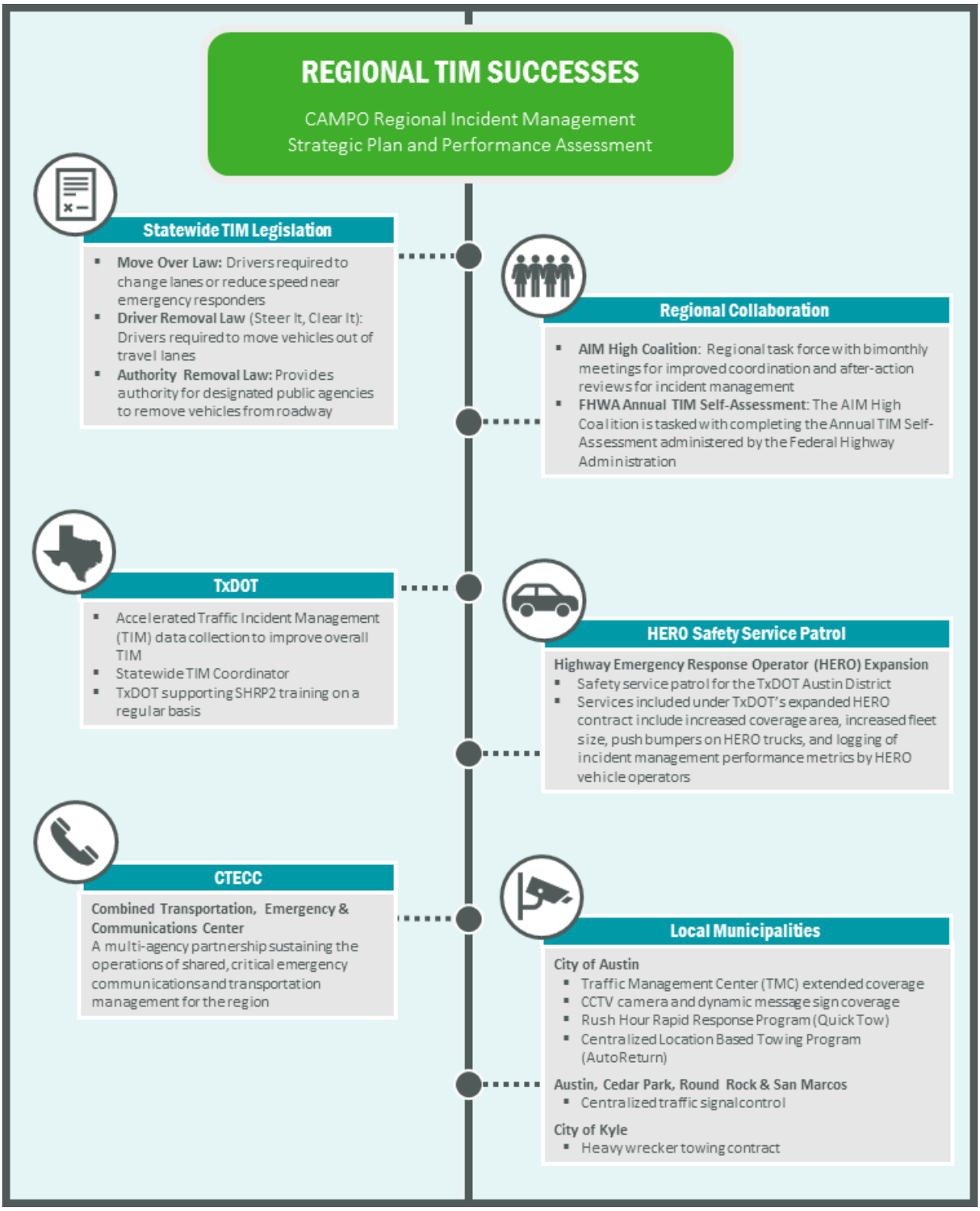



Figure 6 – TIM Successes in the CAMPO Region

## Statewide TIM Legislation

Traffic incident management programs and projects in the CAMPO Region must operate within the umbrella of statewide policy. Fortunately, legislation in Texas scores well on a national scale for following best practices to support incident management efforts.

FHWA published an article in 2008 called *Traffic Incident Management Quick Clearance Laws: A National Review of Best Practices* (https://ops.fhwa.dot.gov/publications/fhwahop09005/index.htm). The article commends Texas for implementing the following policy best practices that support incident management:

- The Move Over Law which requires drivers to change lanes or reduce speed near emergency responders.
- The Driver Removal Law (also known as "Steer It, Clear It") which requires drivers to move vehicles out of travel lanes.
- The Authority Removal Law which provides authority for designated public agencies to remove vehicles from the roadway.

## Regional Collaboration

When a traffic incident occurs, it is no single agency's responsibility to manage and clear it. TIM is a collaborative effort, where the responsibilities of municipal transportation, fire, and police departments intersect with county, regional and statewide transportation agencies as well as private towing companies. Regional collaboration can therefore be considered the cornerstone of TIM. Project recommendations for resource sharing, policy updates, or data collection rise and fall with a Region's ability to work together towards common goals of safety, mobility, and high-quality traveler information.

As noted previously, AIMHigh is a regional task force of stakeholders that has been meeting since 2004 for the improvement of incident management in the Austin area. AIMHigh provides the opportunity for improved regional coordination and after-action reviews for incident management. Commonly participating agencies include TxDOT Austin District, TxDOT HERO Safety Service Patrol, CTRMA, City of Austin (Transportation, Police and Fire), City of Round Rock (Transportation and Police), City of San Marcos (Transportation), City of Cedar Park (Transportation), and the Travis County Sheriff's Office.

Many regional coordination efforts deal specifically with Traffic Management Center (TMC) operations. To discuss these initiatives, a Regional TMC Operations Forum has been formed that meets bi-monthly in the CAMPO Region. The Regional TMC Operations Forum operates as an independent working group to develop standard operating procedures (SOPs) and potentially share resources that to help manage traffic and incidents with increasing effectiveness. Participants include representatives from CTECC, TxDOT Austin District, TxDOT Toll Division, CTRMA, City of Austin, City of Round Rock, and City of San Marcos.

## Texas Department of Transportation

In addition to operating the HERO patrol program and the TxDOT regional TMC at CTECC, TxDOT supports incident management efforts in a variety of other ways.

Figure 7 – TxDOT Sponsored SHRP2 TIM Train the Trainer Class

In 2018 TxDOT created the role of Statewide TIM Coordinator. This new role is focused on the improvement of incident management and provision of training opportunities throughout the state. The first Statewide TIM Coordinator, David McDonald, has been heavily involved in the development of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment through stakeholder workshops and interviews, both in his former role with the Austin Police Department and as the TxDOT Statewide TIM Coordinator. The Statewide TIM Coordinator participates in regional incident management forums across the state and helps support TIM improvements, including coordinating training opportunities.

For example, a Strategic Highway Research Program 2 (SHRP2) TIM Train the Trainer class was offered on April 18, 2018, for stakeholders in the CAMPO Region, and TxDOT will continue to support SHRP2 TIM training on a regular basis. The SHRP2 TIM training program (developed by FHWA) uses tabletop exercises to educate first responders and traffic operators about TIM best practices. One benefit of SHRP2 training is the networking across agencies that occurs at the sessions. When incident management personnel have relationships with one another, safety and efficiency at the incident scene are improved.

In addition to the Train the Trainer class (which educates personnel so that they are qualified to go back to their agencies and train others), the four-hour SHRP2 Basic TIM Training course could be offered regularly in the CAMPO Region for transportation and emergency response personnel. The TxDOT Statewide TIM Coordinator will continue to research and develop TIM training opportunities statewide.

One challenge TxDOT faces is the ability to collect traffic and incident data and monitor performance in a standardized way across TxDOT Districts. Another challenge is how to collect data on roads not covered by TxDOT's Freeway Management System. In response to these needs, TxDOT is focusing on the development of standardized data collection and performance monitoring processes to accelerate their ability to collect and monitor system performance, including incident management operations.

In 2014 TxDOT completed a report known as *Traffic Incident Management Plan: State of the Practice*. This plan documented existing and planned traffic incident management efforts in the

Austin Region and produced a list of 14 project recommendations for the Region. Some of these recommendations, like upgrading Lonestar to efficiently log incident information and expanding the HERO program, have already been implemented. Other recommendations, like establishing TIM performance measures for the Region, are further developed by the CAMPO Regional Incident Management Strategic Plan and Performance Assessment.

## HERO Safety Service Patrol

Safety service patrol programs are a relatively low-cost traffic incident management strategy that provides assistance to stranded motorists, while also improving safety and mobility for the rest of road users during an incident. The HERO service patrol program has been operating for years in the TxDOT Austin District. Originally established by TxDOT, the program was funded by CAMPO and operated by CTRMA for several years before returning to TxDOT. The program was discontinued by TxDOT in February 2008 but re-instituted in 2010.

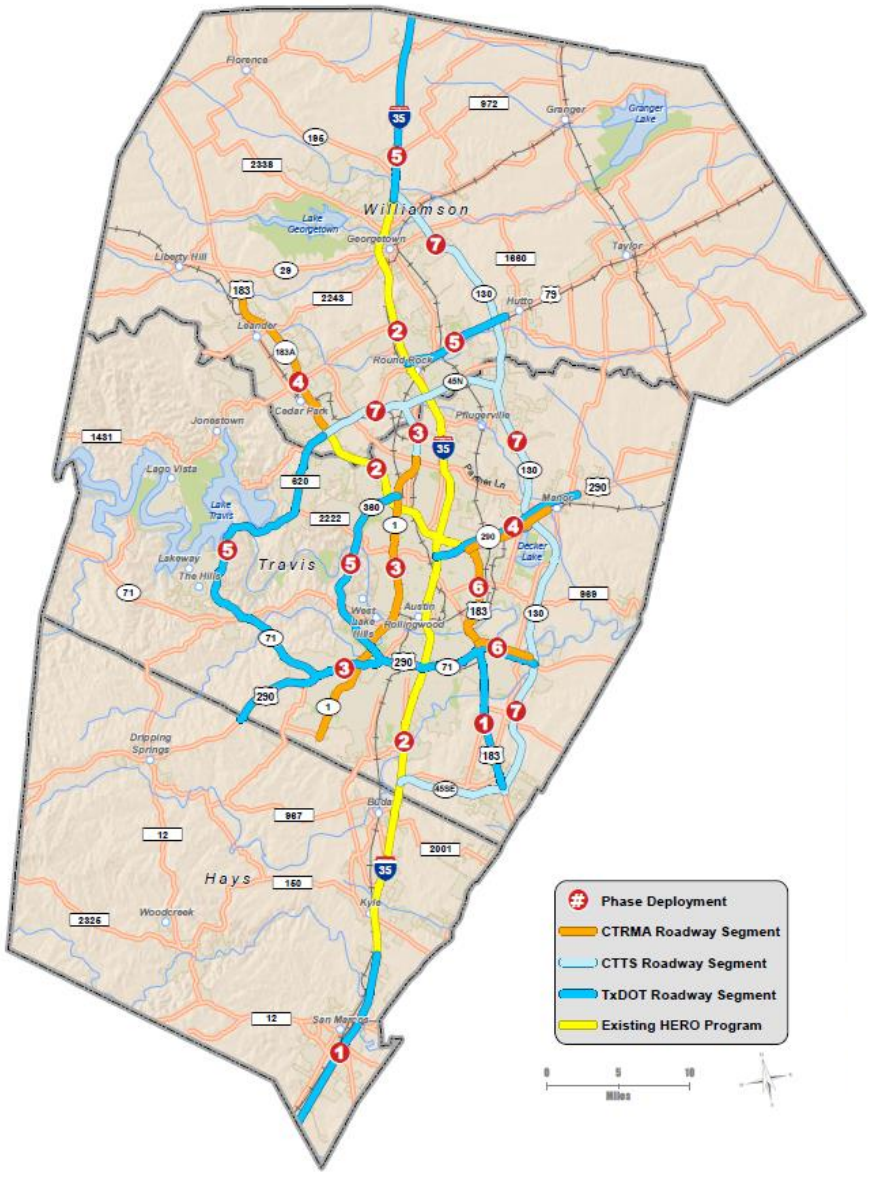



Figure 8 - HERO Safety Service Patrol Expansion Phasing

| Phase | Total Miles |
|---|---|
| 1 | 22.7 |
| 2 | 68.7 |
| 3 | 46.9 |
| 4 | 28.1 |
| 5 | 53.6 |
| 6 | 18.7 |
| 7 | 71.0 |

The goal of the HERO program is to improve safety and keep traffic flowing along 138 miles of I-35, US 183, US 290, SH 71, and Loop 1 (MoPac) in the greater Austin area. HERO trucks operate from 5 AM to 9 PM Monday through Friday and from 7 AM to 7 PM Saturday and Sunday. Example HERO services include relocating disabled vehicles to safety, providing traffic and lane control at crash scenes, changing flat tires, and assisting first responders at crash scenes. TxDOT is also operating HERO services during scheduled overnight full freeway closures due to construction on I-35.

In 2017 TxDOT launched a new HERO contract with enhanced incident management capabilities. The new program has an expanded coverage area, as shown in **Figure 8**, and an increased fleet size, with vehicles equipped with push bumpers and arrow boards. HERO vehicle operators have also begun to log incidents in an online database to improve incident tracking and performance monitoring.

## CTECC

TMCs are an integral piece of incident management operations in urban areas. From their TMC workstations, operators can detect traffic incidents, monitor traffic conditions using CCTV cameras, post messages to dynamic message signs (DMS) about heavy traffic or alternate routes, and dispatch service patrol vehicles or emergency services.

The Combined Transportation, Emergency & Communications Center (CTECC) is located on Old Manor Road in Austin. CTECC is a centralized public safety facility sustaining the operations of shared, critical emergency communications and transportation management for the region. Functionality includes public safety dispatch, transit dispatch, and TxDOT TMC operations.

Figure 9 – Traffic management operators at CTECC use CCTV cameras, DMS and other transportation technologies to promote safety and mobility in the Region.

As a partnership between multiple agencies in the Region, CTECC is uniquely equipped to manage incidents whose impacts span multiple jurisdictions. Agencies in partnership at CTECC include TxDOT TMC, Travis County Sheriff, City of Austin Police and Fire, and the Capital Metropolitan Transportation Authority. In 2018 the City of Austin TMC (located at a separate facility on Toomey Road) plans to locate TMC operators in CTECC for increased coordination.

CTECC also supports incident management efforts by providing space for regional 9-1-1 operators and dispatch personnel from the City of Austin Police and Fire Departments. TxDOT

houses their TMC and HERO Safety Service Patrol Program dispatchers at CTECC, and the AIMHigh bimonthly meetings occur in the CTECC Emergency Operations Center room.

## Municipalities

In addition to regional incident management measures, many programs and transportation technologies implemented by local municipalities also support TIM in the CAMPO Region. Some examples include:


Figure 10 – Increased TMC capabilities such as CCTV cameras, DMS, and centralized signal control have improved the capability of cities to manage traffic during incidents.

**Extended TMC Coverage.** The City of Austin extended TMC coverage hours from standard business hours to 6 AM to 8 PM Monday through Friday. Weekends are covered with slightly shorter hours but coverage is extended on weekends when special events will impact traffic. This extended coverage has increased the availability of City of Austin TMC operators to change signal timings to response to incidents, especially along frontage roads for major incidents along freeway facilities.

**Intelligent Transportation Systems (ITS).** Municipal agencies throughout the CAMPO Region, including the City of Austin, City of Cedar Park, City of Round Rock, and the City of San Marcos, use a variety of ITS devices to monitor and manage traffic. Devices deployed by various cities include CCTV cameras, DMS, and Bluetooth vehicle sensors to monitor traffic and provide traveler information from TMCs.

**Rush Hour Rapid Response Program.** The City of Austin operates the Rush Hour Rapid Response Program (also known as "Quick Tow"). Within this program, disabled vehicles on a limited number of roadways within Austin can receive a free tow off the roadway to a place of safety during the AM and PM peak hours. The Rush Hour Rapid Response program benefits not only the owner of the disabled vehicle, but also the rest of the traveling public because it results in quicker clearance of the roadway for improved safety and reduced travel delays. The Rush Hour Rapid Response program also benefits the Region by removing vehicles from the shoulder where they can be a distraction to drivers and may impede the use of an emergency lane.

**Location-based Towing Dispatch.** The City of Austin has a contract with a third-party service to dispatch towing services based on proximity to the incident. This service has reduced average response times for vehicle collision and disabled vehicle towing calls from an average of 16 minutes to less than eight minutes. Other municipalities in the CAMPO Region are considering the implementation of a similar location-based dispatch service.

**Centralized Traffic Signal Control.** Operators at the following municipal TMC can implement signal timing changes remotely to help manage incidents in the City of Austin, City of Cedar Park, City of Round Rock and City of San Marcos. Centralized traffic signal control allows cities to implement traffic signal plans quickly in response to traffic incidents and other unplanned events that impact traffic.

**Heavy Tow Program.** The City of Kyle has a separate towing contract for heavy wreckers, primarily for incidents on I-35. This contract through the City of Kyle Police Department improves clearance times for major incidents involving commercial or other large vehicles, which leads to improved safety and mobility through the City of Kyle.

CHAPTER 4

# RECOMMENDATIONS

# 4 | RECOMMENDATIONS

The recommendations generated by the CAMPO Regional Incident Management Strategic Plan and Performance Assessment are tailored to the specific needs of the region. The list of recommendations in this chapter began with a review of national TIM best practices and grew and changed over the course of an extensive regional stakeholder engagement process.

Over 50 individuals from 21 different agencies in the Region provided feedback by participating in stakeholder interviews, attending project workshops, reviewing the draft report, or serving on the Study Steering Committee. Each of the recommendations in this chapter is informed and vetted by numerous incident management stakeholders in the CAMPO Region.

Recommendations have been organized into one of the following seven categories.

- **Policy**. The creation of formal policies is necessary to establish agreement across agencies for the implementation of some TIM strategies, like HAZMAT spill cleanup. Formal documentation can also protect effective TIM processes against falling out of practice with changes in agency leadership.
- **Communication and Coordination**. Streamlining communication between agencies increases the rapidity with which incidents are detected, managed, and cleared. Communication and coordination TIM recommendations deal with establishing standard processes to improve regional collaboration.
- **Infrastructure**. CCTV cameras and DMS deployed in the field enable TMC operators to detect incidents, dispatch safety service patrol vehicles, and manage traffic. Through the development of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment, stakeholders identified needs for additional infrastructure beyond what is currently deployed in the CAMPO Region, and a cost-benefit analysis was performed to analyze the anticipated return on investment for many of these deployments in the CAMPO Region.
- **Response and Clearance Procedures**. Reducing the time that it takes to respond to and clear incidents in the CAMPO Region is one of the primary goals of this project, because of the resulting safety and mobility benefits for the Region. Many cost-effective solutions are available to assist regional agencies with this goal, like location-based tow dispatch and rapid clear no-cost towing on major roadways.
- **Training**. TIM training can be a standard component of job training. For example, everyone from cadets to supervisors at the Austin Police Department receives basic training to assist stranded motorists with a priority to clear the road as fast as possible to minimize safety hazards. Periodic interdisciplinary TIM training is also a beneficial exercise that educates personnel about other agencies' processes and priorities, and builds relationships across agencies that improve incident response procedures.
- **Data and Performance Measures**. Collecting and sharing TIM-related data for the CAMPO Region can help individual agencies track incremental progress and allocate funding to strategies that demonstrate effectiveness. The ability to share regional TIM performance measures broadly with the public can also help to garner widespread support for TIM strategies.
- **Public Engagement**. Communicating accurate, timely traffic and incident information to the public allows travelers to make informed decisions and potentially change their travel plans. Public education campaigns can also be conducted to increase awareness of public services like the HERO Safety Service Patrol.

The full list of recommendations is included in **Figure 11** on the following page. For each recommendation, the following corresponding elements are including.

**Projected Timeframe**. Identifies whether a project can likely be completed in the near term or has a longer implementation horizon.

**Estimated Score**. Provides an estimated score in the categories related to cost, ease of implementation, and benefit-cost ratio. While there is no uniform scoring method to perfectly compare the wide variety of recommendations, these high-level scores have been based on engineering judgment and knowledge of the CAMPO Region. Scoring is assigned as follows:

- **Low Cost of Implementation**. Projects with a low expected cost receive a high score.
- **Ease of Implementation.** Projects requiring minimal interagency coordination receive a high score.
- **Benefit-Cost Ratio**. Projects with a high expected benefit-cost ratio receive a high score. Note that an in-depth cost-benefit analysis was performed for a subset of infrastructure and response and clearance strategies that were conducive to quantitative evaluation (see the *Cost-Benefit Analysis* section of this chapter for more information about the calculation of these ratios).

**Lead Agency**. Identifies the most likely agency or agencies to spearhead strategy implementation.

Following the full list in **Figure 11**, a more detailed description of each recommendation is provided in this chapter.

## CAMPO REGIONAL INCIDENT MANAGEMENT STRATEGIC PLAN AND PERFORMANCE ASSESSMENT

| | RECOMMENDATION | PROJECTED IMPLEMENTATION TIME FRAME | | | ESTIMATED SCORE (●●●●● = Best) | | | LEAD AGENCY |
|---|---|---|---|---|---|---|---|---|
| | | FY 2019 SHORT-TERM (0-4 YEARS) | MID-TERM (5-10 YEARS) | LONG-TERM (10+ YEARS) | LOW COST OF IMPLEMENTATION | EASE OF IMPLEMENTATION | BENEFIT-COST RATIO | |
| POLICY | Develop Regional Open Roads Policy | ●→● | | | ●●●●● | ●●●○○ | ●●●●● | CAMPO |
| | Develop a standardized HAZMAT and non-HAZMAT clean-up policy for the Region | ●→● | | | ●●●●● | ●●●○○ | ●●●●● | CAMPO |
| | Create a position for a Regional TIM Coordinator | ●→ | → | → | ●●●●○ | ●●●●○ | ●●●●○ | CAMPO or TxDOT |
| COMMUNICATION & COORDINATION | Develop standard operating procedures for TMC coordination throughout the Region | ●→● | | | ●●●●● | ●●●○○ | ●●●●○ | TxDOT, CTRMA, or Municipalities |
| | Develop platform for shared viewing of all cameras and DMS throughout the Region | ●→● | →● | | ●○○○○ | ●●○○○ | ●●●○○ | TxDOT or CAMPO |
| | Develop a regional repository for incident status available to all CAMPO agencies | ●→● | →● | | ●●○○○ | ●○○○○ | ●●●○○ | TxDOT or CAMPO |
| | Expand sharing of computer-aided dispatch (CAD) data throughout the Region | ●→ | → | →● | ●●●○○ | ●●●○○ | ●●●○○ | Transportation and Public Safety Agencies |
| INFRASTRUCTURE | Expand freeway lighting coverage | ●→● | | | ●○○○○ | ●●●●○ | ●●●●● | TxDOT |
| | Expand CCTV camera coverage on freeways | ●→● | | | ●○○○○ | ●●●○○ | ●●●●○ | TxDOT |
| | Expand DMS coverage on freeways | ●→● | | | ●○○○○ | ●●●○○ | ●●●●○ | TxDOT |
| | Deploy DMS on state routes in rural areas at key decision points in the CAMPO Region | ●→ | → | →● | ●○○○○ | ●●○○○ | ●●●○○ | TxDOT |
| | Expand arterial DMS coverage in the City of Austin | ●→● | | | ●●○○○ | ●●●●○ | ●●●○○ | City of Austin |
| | Expand traffic signal preemption for emergency vehicles | ●→● | | | ●●○○○ | ●●●●○ | ●●●●○ | Regional Municipalities |
| RESPONSE & CLEARANCE | Expand HERO service patrol coverage to additional freeways | ●→ | → | → | ●●○○○ | ●●●●○ | ●●●○○ | TxDOT |
| | Expand HERO service patrol coverage to regional arterials | ●→ | → | → | ●●○○○ | ●●●●○ | ●●●●○ | TxDOT and Regional Municipalities |
| | Implement rapid clear no-cost towing on freeways | ●→ | → | → | ●●●○○ | ●○○○○ | ●●●●● | CAMPO or Regional Municipalities |
| | Implement rapid clear no-cost towing on regional arterials | ●→ | → | → | ●●●○○ | ●○○○○ | ●●●●● | CAMPO or Regional Municipalities |
| | Implement centralized location-based towing dispatch throughout the Region | ●→ | → | → | ●●●●○ | ●○○○○ | ●●●●○ | CAMPO or Regional Municipalities |
| | Implement heavy-tow program throughout the Region | ●→ | → | → | ●●●○○ | ●●○○○ | ●●●●○ | CAMPO, TxDOT, or Regional Municipalities |
| | Procure advanced crash investigation equipment for law enforcement throughout the Region | →● | →● | | ●●●○○ | ●●●●○ | ●●●○○ | CAMPO, TxDOT, or DPS |
| TRAINING | Support continued regional interdisciplinary TIM training | ●→ | → | → | ●●●●● | ●●●●● | ●●●●● | CAMPO or TxDOT |
| | Educate first responder agencies about capabilities of HERO service patrol vehicles | ●→ | → | → | ●●●●○ | ●●●●○ | ●●●●○ | TxDOT |
| | Provide training for advanced crash investigation equipment to law enforcement throughout the Region | →● | → | → | ●●●●○ | ●●●●○ | ●●●○○ | CAMPO, TxDOT, or DPS |
| DATA & PERFORMANCE MEASURES | Standardize regional TIM data collection, data visualization, and performance measures | ●→● | | | ●●●○○ | ●○○○○ | ●●●●○ | TxDOT or CAMPO |
| | Share regional TIM performance data between public agencies in data dashboard | →● | → | → | ●●●○○ | ●●●○○ | ●●●●○ | TxDOT or CAMPO |
| PUBLIC ENGAGEMENT | Share regional TIM performance data with media and public in annual report and data dashboard | →● | → | → | ●●●○○ | ●●●○○ | ●●●○○ | CAMPO and TxDOT |
| | Increase knowledge and support of HERO through public education efforts | ●→ | → | → | ●●●●○ | ●●●●● | ●●●○○ | TxDOT and CAMPO |
| | Raise awareness of statewide Steer It, Clear It law | ●→ | → | → | ●●●●○ | ●●●●○ | ●●●●● | TxDOT and CAMPO |
| | Improve traveler information quality through increased coordination with private sector providers | ●→ | → | → | ●●●●○ | ●●●○○ | ●●●●○ | Transportation Agencies |

Figure 11 – Summary of Regional Incident Management Recommendations

# Policy Recommendations

As noted in Chapter 3, Texas has a set of statewide policies that are supportive of successful TIM operations, including the Move Over Law, the Driver Removal Law, and the Authority Removal Law. During the development of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment, stakeholders identified additional policies that could be implemented at a regional scale to allow agencies to manage incidents more safely and efficiently. These policies are described in the following table.

**Table 2 – Policy Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Develop Regional Open Roads Policy** | Open Roads policies establish an understanding among member agencies that clearing the roadway for safety and mobility is a high priority, and that procedures, standards, and training will be updated accordingly. Open Roads policies may include agreed upon region-wide performance goals, data collection methods, and responsibilities. | CAMPO |
| **Develop standardized HAZMAT and non-HAZMAT clean-up policy for the Region** | Stakeholders identified the need for standardized policies for HAZMAT and non-hazardous spills on area roadways as a key part of incident management. Based on national best practices and a review of existing legislation, the development and adoption of these policies would have operational and environmental benefits for the CAMPO Region. | CAMPO |
| **Create a position for a Regional TIM Coordinator** | The initiation of the Statewide TIM Coordinator role by TxDOT in early 2018 provided new opportunities for focused TIM training and coordination in the region. The creation of a TIM Coordinator Position for the CAMPO Region specifically would enhance regional incident management coordination and could guide the continued efforts of the AIMHigh task force. This role would likely be housed within TxDOT, CAMPO, or DPS. | CAMPO or TxDOT |

# Communication and Coordination Recommendations

It is a commonly acknowledged reality in the field of TIM that traffic incidents occur with no regard to jurisdictional boundaries. A major incident that occurs on I-35 in south Round Rock, for example, might be first detected by a HERO safety service patrol vehicle and reported to TxDOT TMC operators at CTECC, who will monitor the incident using CCTV cameras and possibly post messages about incident-related delays to TxDOT DMS along the freeway. At the same time, CTECC operators may reach out to operators at the City of Round Rock TMC so they can remotely adjust signal timings along frontage roads to account for the increased traffic being diverted from the freeway onto the frontage roads. The City of Round Rock Police and Fire Departments would likely have responded to the incident, unless City of Austin or Pflugerville responders happened to be closer to the incident at the time it occurred.

Incident management is clearly complex and requires timely, reliable processes to be in place to promote traveler and responder safety and clear the road as quickly as possible. The ability to share resources, such as access to CCTV camera feeds, or to have established standard operating procedures for how one agency contacts another with TIM-related needs, can save invaluable minutes during and following an incident. The following table contains specific TIM-related communication and coordination recommendations for the CAMPO Region.

**Table 3 – Communication and Coordination Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Develop standard operating procedures for TMC coordination throughout the Region** *(In progress in the Region)* | Stakeholders identified the need to establish standard communication methods and points of contact among TMCs for improved incident management coordination. The existing Regional TMC Operator Forum, with support from other member agencies of AIMHigh, could work to establish these protocols and guidelines. | TxDOT, CTRMA, or Municipalities |
| **Develop platform for shared viewing of all cameras and DMS throughout the Region** *(In progress in the Region)* | A web-based platform for regional sharing of camera feeds and DMS messages would allow local agencies to monitor traffic and manage incidents more effectively, especially in instances where impacts from incidents cross jurisdictional boundaries. | TxDOT or CAMPO |
| **Develop a regional repository for incident status available to all CAMPO agencies** | Stakeholders expressed the desire for a database with incident statuses that could be accessed by agencies across the region.<br>For example, the City of San Marcos would benefit from being able to view the status of incidents along I-35 and communicate information about delays to northbound travelers as they approach the Austin metropolitan area. | TxDOT or CAMPO |
| **Expand sharing of computer-aided dispatch (CAD) data throughout the Region** *(In progress in the Region)* | The collection and dissemination of computer-aided dispatch data could be reviewed for improvements that would enhance incident management by local agencies. | Transportation and Public Safety Agencies |

# Infrastructure Recommendations

As is evident throughout the CAMPO Regional Incident Management Strategic Plan and Performance Assessment, infrastructure and technology alone are not the answer to our incident management challenges. Regional agencies must steward material assets by combining them with effective communication processes, training opportunities, and performance monitoring to maximize their effectiveness. Nonetheless, infrastructure such as CCTV cameras and DMS are key elements of incident management and greatly enhance agencies' abilities to monitor the incident scene and communicate with travelers. Installation and maintenance of adequate lighting on freeways was also cited by stakeholders (particularly the cities of Kyle and Round Rock along I-35) as a critical need for the prevention of secondary crashes when disabled vehicles are present along the freeway at night. The following table contains TIM related infrastructure recommendations for the CAMPO Region.

**Table 4 – Infrastructure Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Expand freeway lighting coverage** | Stakeholders cited lack of freeway lighting as a significant cause of secondary crashes, especially in the City of Kyle and the City of Round Rock. Installing additional freeway lighting and securing funding to keep lights operational improves safety along major corridors, especially for disabled vehicles. | TxDOT |
| **Expand CCTV camera coverage on freeways** *(In progress in the Region)* | The TxDOT Austin District has identified locations for new CCTV freeway coverage in the ITS Master Plan. Additional CCTV cameras would improve CTECC's incident verification capabilities and would allow operators to assist in coordinating emergency response efforts on a larger portion of the Regional freeway network. | TxDOT |
| **Expand DMS coverage on freeways** *(In progress in the Region)* | The TxDOT Austin District has identified locations for expanded freeway DMS coverage in the ITS Master Plan. Additional DMS will allow TxDOT to more effectively share incident-related traveler information and other updates to motorists traveling on TxDOT freeways. | TxDOT |
| **Deploy DMS on state routes in rural areas at key decision points in the CAMPO Region** *(In progress in the Region)* | The TxDOT Austin District has identified locations for rural DMS in the ITS Master Plan. The installation of these signs would allow drivers approaching the Austin metropolitan region to make informed travel decisions based on real-time traffic conditions and incident information. | TxDOT |
| **Expand arterial DMS coverage in the City of Austin** *(In progress in the Region)* | As of early 2018, the City of Austin has a system of 12 arterial DMS. The City has funding to deploy additional signs at selected decision points to assist with traffic management and traveler information. | City of Austin and TxDOT |
| **Expand traffic signal preemption for emergency vehicles** *(In progress in the Region)* | The City of Austin has deployed emergency vehicle preemption technology at some of its signals and plans to expand the deployment. Other municipalities in the Region have also expressed interest. The technology gives signal priority to emergency responders, thereby reducing incident response time on arterial roads. | Regional Municipalities |

# Response and Clearance Recommendations

Agencies in the CAMPO Region have many processes in place to quickly and safely respond to and clear traffic incidents. The HERO Safety Service Patrol program expanded its hours, coverage area, and capabilities in 2017. The Regional TMC Operators Forum meets regularly to discuss standard operations procedures and resource sharing. The City of Austin uses a third-party service for location-based tow dispatch to reduce towing response times for faster roadway incident clearance. There are many other examples of current initiatives underway to continually refine and improve TIM processes, as discussed in Chapter 3.

During the development of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment, stakeholders shared ideas and brainstormed about how to further improve response and clearance procedures in the Region.

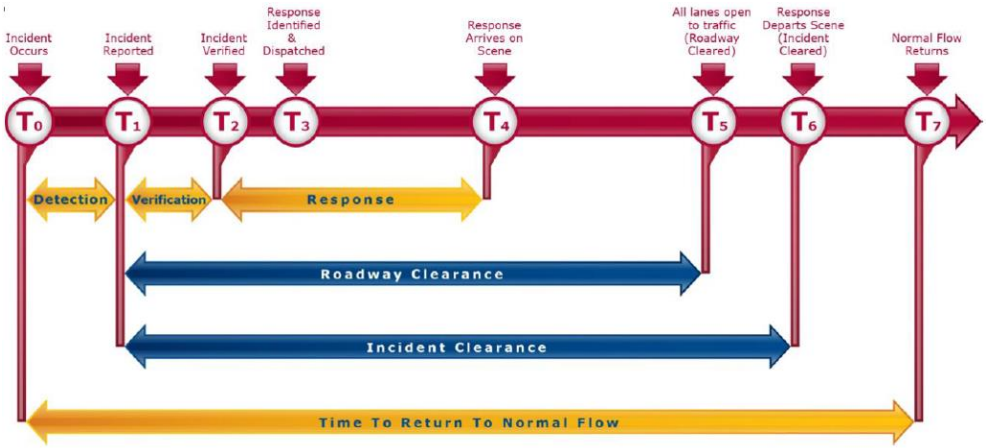



Figure 12 – Incident Timeline
*Source: USDOT*

As shown in **Figure 12**, the incident timeline is made up of many parts, including detection, verification, response, roadway and scene clearance, and the time for traffic to return to normal flow once the entire incident is cleared. The recommendations in **Table 5** deal specifically with reducing response and clearance times, while also improving traveler and responder safety.

Waiting for a tow truck with the proper equipment to remove a vehicle from the incident scene can often compound incident-related congestion and delay. Vehicle removal can be further delayed by negotiations to figure out who will cover the cost of the tow and whether a vehicle owner should be allowed to call their preferred towing service. The implementation of a no-cost towing program on major roadways, similar to the SafeClear program in Houston, is recommended to mitigate this challenge and reduce incident-related delays in the CAMPO Region.

Establishing a heavy tow program like the City of Kyle's existing heavy tow program would also be particularly helpful to the Region, to accelerate the clearance of major incidents like an overturned semi-trailer truck that have the potential to cause hours of delay. Continuing to fund and operate the existing HERO Safety Service Patrol program is another strategy with wide-reaching TIM-related benefits to the Region.

**Table 5 – Response and Clearance Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Expand HERO service patrol coverage to additional freeways** | Future expansion of the HERO service patrol could include additional miles of coverage on freeways to increase the impact this service has on reducing incident duration throughout the region. | TxDOT |
| **Expand HERO service patrol coverage to regional arterials** | Expansion of the HERO service patrol to regional arterials would allow for improved response to arterial incidents, many of which occur in locations without a road shoulder | TxDOT and Regional Municipalities |
| **Implement rapid clear no-cost towing on additional freeways** | The City of Austin has implemented the Rush Hour Rapid Response program, in which towing companies under contract with the City are required to provide towing off the roadway during specified peak times and geographic zones free of charge. Other municipalities in the CAMPO Region (especially along the I-35 corridor) could create similar requirements. Alternatively, municipalities could establish stricter performance targets in their towing contacts for peak hour clearance times. | CAMPO or Regional Municipalities |
| **Implement rapid clear no-cost towing on regional arterials** | As with the HERO program, expanding no-cost towing services to regional arterials would move disabled vehicles from the roadway more quickly, reducing incident impacts especially on regional arterials that do not have road shoulders. | CAMPO or Regional Municipalities |
| **Implement centralized location-based towing dispatch throughout the Region** | Other municipalities in the CAMPO Region (especially along the I-35 corridor) could consider using a third-party service to dispatch towing services based on proximity to the incident. City of Austin currently uses such a system, and the City of Round Rock plans to begin use later this year. | CAMPO or Regional Municipalities |
| **Implement heavy-tow program throughout the Region** | Establishing a heavy tow program for use by agencies in the Region would allow for quicker clearance of major incidents. | CAMPO or TxDOT |
| **Procure advanced crash investigation equipment for law enforcement throughout the Region** | The use of photogrammetry equipment and potentially new state-of-the-art technology could reduce delay caused by investigations of fatal crashes. The Austin Police Department plans to begin using drones in 2018 to assist in crash investigations, with an anticipated resulting decrease in investigation time from 3-5 hours to 2 hours. | CAMPO, TxDOT, or DPS |

# Training Recommendations

Funding challenges, staff shortages, competing priorities, and personnel turnover make it difficult to maintain teams of responders, operators, and other TIM professionals who are highly trained in TIM best practices. Fortunately, agencies in the CAMPO Region recognize the value of agency-specific and interdisciplinary TIM training and are seeking to make it a priority. The new TxDOT Statewide TIM Coordinator has been tasked with helping to coordinate TIM training opportunities for the Region, and on April 18, 2018, a SHRP2 TIM Train the Trainer course was held that was well attended by CAMPO Region stakeholders. The following table contains additional TIM training recommendations supported by regional stakeholders.

**Table 6 – Training Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Support continued regional interdisciplinary TIM training** ***(In progress in the CAMPO Region)*** | Opportunities for interdisciplinary TIM training, with an emphasis on table-top and scenario-based training, will support local incident management efforts. Training classes that are recognized by FHWA or TCOLE are encouraged. "Train the Trainer" classes help to maximize the number of personnel that can receive the training in a given agency, and these classes should be offered within the region regularly. | CAMPO or TxDOT |
| **Educate first responder agencies about capabilities of HERO service patrol vehicles** | Leveraging the full abilities of the recently expanded HERO patrol program allows other incident management personnel on-scene to serve in their specialized roles. Presentations to the AIMHigh bimonthly task force or the distribution of informational brochures could help to spread the word about HERO capabilities. | TxDOT |
| **Provide training for advanced crash investigation equipment for law enforcement throughout the Region** | The use of photogrammetry equipment and potentially new state-of-the-art technology could reduce delay caused by investigations of fatal crashes. Proper training on the use of this equipment should increase the rate of adoption and efficiency of its use in the field. | CAMPO, TxDOT, or DPS |

# Data and Performance Measures Recommendations

Data collection and performance measurement are essential components of the systems engineering process, which verifies that implemented solutions meet identified needs. It is crucial for CAMPO Region stakeholders to develop methods and collect necessary data to gauge the effectiveness of various TIM strategies so that they can allocate investments and staff time accordingly.

The establishment of standardized performance measures for the Region was also identified as a recommendation in TxDOT's 2014 *Traffic Incident Management Plan: State of the Practice.* The following table describes the TIM data and performance measures recommendations identified by stakeholders as a part of this plan.

**Table 7 – Data and Performance Measures Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Standardize regional TIM data collection, data visualization, and performance measures** | Establishing standard data collection methods and region-wide performance goals will allow agencies to assess the impacts of various TIM strategies and measure the progress of the region as a whole. | TxDOT or CAMPO |
| **Share regional TIM performance data between public agencies in data dashboard** | Improved traffic data sharing among agencies in the CAMPO Region will improve the accuracy and timeliness of traveler information and incident detection. | TxDOT or CAMPO |

# Public Engagement Recommendations

While many of the TIM recommendations in the CAMPO Regional Incident Management Strategic Plan and Performance Assessment are internal to agencies and may not be immediately apparent to the public – like expanding traffic signal preemption for emergency vehicles to additional signals, or conducting TIM training sessions for emergency responders – there are many aspects of TIM that directly involve the public. The positive impacts of the HERO Safety Service Patrol, for example, will continue to grow with awareness of the program, so that more disabled motorists know to call HERO vehicles for assistance.

**Table 8 – Public Engagement Recommendations**

| Recommendation | Description | Lead Agency |
|---|---|---|
| **Share regional TIM performance data with media and public in annual report and data dashboard** | The development of an annual report and web-based data dashboard for TIM performance measures would help local agencies to evaluate the impact of current TIM strategies and assess needs for additional projects, programs, or policies. Sharing performance data could also help to educate local decisionmakers whose support of TIM initiatives is critical to their success. | CAMPO and TxDOT |
| **Increase knowledge and support of HERO through public education efforts** | Increasing awareness of HERO patrol services among the public would likely result in more stranded drivers calling for HERO assistance rather than waiting to be detected by HERO drivers or TMC operators. This anticipated decrease in detection times could reduce roadway and incident clearance times and the rate of secondary crashes. | TxDOT and CAMPO |
| **Raise awareness of statewide Steer It, Clear It law** | Agencies should work to educate the public that they should move their vehicles to safety following an incident rather than "preserving the scene." Methods for communication could include agency websites or DMS. | TxDOT and CAMPO |
| **Improve traveler information quality through increased coordination with private sector providers** ***(In progress in the CAMPO Region)*** | Partnerships with the private sector can provide agencies with real-time data and a large platform to disseminate traveler information. Examples include the WAZE Connected Citizens Program and INRIX traffic data. | Transportation Agencies Throughout Region |

# Cost-Benefit Analysis

Agencies in the CAMPO Region have many opportunities to improve quality of life and only limited funding to allocate to these pursuits. It is important for decision makers to have a high level of confidence that the strategies they choose to invest in will make a difference to the Region.

To help communicate the value of TIM strategies and to assist the Region with prioritization of recommendations, a cost-benefit analysis was performed. **Figure 11** at the beginning of Chapter 4 contains anticipated relative scores for the return on investment of the entire list of TIM recommendations from the CAMPO Regional Incident Management Strategic Plan and Performance Assessment. A more detailed analysis was performed for a subset of TIM recommendations for which quantitative analysis was possible with available data. Analysis methods included the use of nationally accepted ratios from FHWA for insfrastructure deployments like CCTV cameras and DMS. For response strategies like HERO safety service patrol assists and rapid response towing, traffic modeling software like VISSIM was used to quantify the estimated benefits of the reduced time that lanes are blocked due to the incident. A summary of the quantitative cost-benefit analysis is presented in **Figure 13** and a more detailed description is provided in the **Appendix**.

Some recommendations are widely accepted to be cost-effective improvements but are less conducive to quantifying costs and benefits. Creating TIM-supportive policies or implementing TIM training opportunities are examples of strategies without an associated cost, and whose quantitative benefits are difficult to model. Other recommendations, such as developing a platform for sharing live camera video throughout the region, have a cost associated but the benefits are difficult to quantitatively measure with current models.

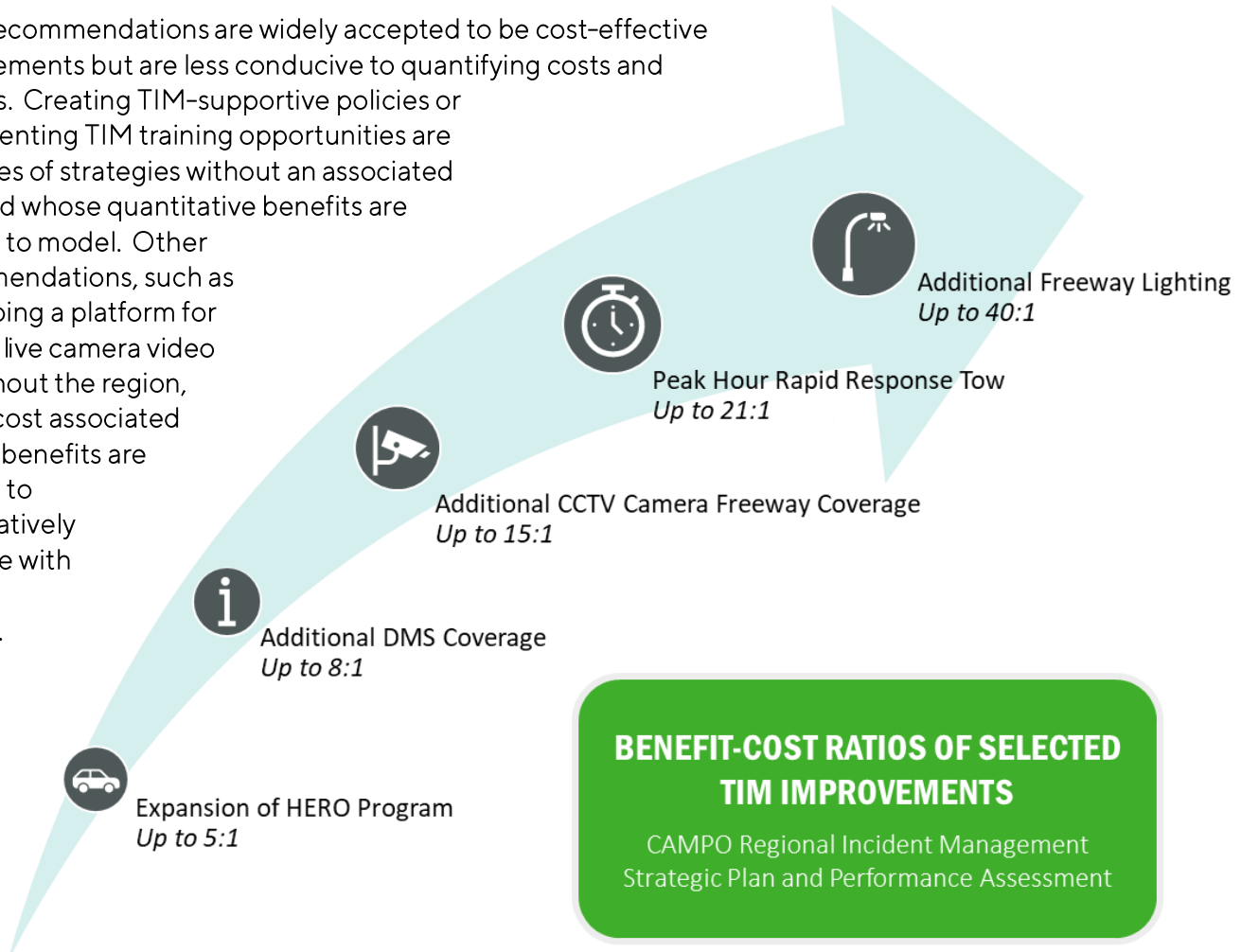



Figure 13 – Benefit-Cost Ratios of TIM Improvements Allowing Quantitative Analysis

It should be noted that the existing HERO Safety Service Patrol program is one of the highest performing TIM strategies, at a ratio of 34:1, but expansion of the HERO Safety Service Patrol program has a relatively lower ratio of 5:1. This difference is largely because the HERO program already operates on the high-volume corridors on which its services are most effective at reducing delay and improving TIM. As the Region's population increases and traffic volumes grow over time, benefit-cost ratios for various corridors could improve. For detailed documentation on the data sources, methodology, and results of the quantitative cost-benefit analysis please refer to the **Appendix**.

## Optimization of Roadside Support Programs

As described in **Chapter 3**, the HERO Safety Service Patrol and Rush Hour Rapid Response towing programs operate separately from one another and are managed by separate agencies: HERO by TxDOT and Rush Hour Rapid Response by the City of Austin. As part of the CAMPO Regional Incident Management Strategic Plan and Performance Assessment, consideration was given to combining these programs as a means to optimize the two services.

The existing HERO Safety Service Patrol operated by TxDOT provides complimentary services to stranded motorists on many freeway and several arterial highway segments in the CAMPO Region. New vehicles added to the fleet in 2017 have added front-mounted push bumpers and illuminating arrow boards to increase the capability of the trucks to move vehicles or debris blocking travel lands and provide advanced warning to drivers. The HERO operators also began receiving increased incident management training in 2017.

The existing City of Austin Rush Hour Rapid Response program was established by the Austin Police Department as a component of its general towing program. Tow truck operators that are on the rotation of companies available for the City to request for towing services generally must station a truck to respond to disabled vehicles during peak travel periods along a freeway in designated zones of the City. When responding to a disabled vehicle in one's zone, a tow truck operator must relocate the stalled vehicle to a place of safety away from the roadway. While the operator cannot charge the vehicle owner for the tow to a place of safety, the operator can charge for additional towing services should the owner of the disabled vehicle request them.

In some locations, the safety service patrol and towing programs are integrated into a joint effort operated by the same agency. This unification of programs can streamline coordination and operations and reduce overhead costs. Some examples include the Coordinated Highways Action Response Team (CHART) in Maryland and the California Department of Transportation (CalTrans) service patrol fleet composed of both service trucks and tow trucks.

In Texas, while both the North Central Texas Council of Governments (NCTCOG) and the Houston-Galveston Area Council (HGAC) offer freeway service patrols, in neither case are the patrol vehicles themselves capable of towing disabled vehicles from the roadway. Notably, however, HGAC's Motorist Assistance Program (MAP) is staffed by local law enforcement staff. As a result, the program may benefit from improved incident response times in situations where a tow is requested, since law enforcement is responsible for authorizing such a request.

While there have been discussions in the CAMPO Region about investigating the feasibility of a joint program, TIM stakeholders involved in the CAMPO Regional Incident Management

Strategic Plan and Performance Assessment did not identify a strong preference to unify the separate programs nor a clear lack of resources provided to either of the existing programs.

Based on the health and origin of current programs and discussions with stakeholders, the unification of the two programs is not currently recommended. A more detailed analysis of potential unification will be possible once the expanded HERO program has been in operation longer and a more robust set of HERO program response data is available.

Several considerations are recommended to improve the efficacy of a rapid clearance towing program along freeways within the region, regardless of whether the towing program is integrated into the HERO program:

**Start Small**. Benefit-cost ratios of freeway response programs can vary significantly depending on the traffic conditions and crash rates of a given facility. Choosing a congested corridor with higher crash rates to implement a rapid clearance towing program allows for the measurement of program performance and increased public awareness and support of the program.

**Expand in Coordination with Other TIM Improvements**. As additional CCTV cameras are implemented along freeways throughout the CAMPO Region, surveillance and dispatch capabilities of traffic managers will improve. Without these surveillance capabilities, towing service providers may not be dispatched to an incident as quickly. The existence of this additional TIM infrastructure will improve the efficacy of any towing program.

**Clarify Roles and Responsibilities with Law Enforcement**. If a freeway towing patrol is operated at a regional level without direct oversight from local law enforcement, agreements will need to be developed between these agencies to determine whether changes to local policies or special approvals are needed from law enforcement officers before disabled or damaged vehicles can be moved from the roadway to a point of safety.

**Fully Subsidize the Program**. In Houston, the SafeClear program has operated vehicle removal towing services, initially at no cost to the vehicle owner (when federal funding was available for the program) and at other times at a subsidized cost to the vehicle owner ($50-$60 per tow). The number of assists and incident clearance metrics were significantly worse when vehicle owners were required to pay for part of the tow, since many motorists refused service and preferred to wait for courtesy towing services to which they had subscribed or attempt to repair their vehicle on the side of the road. This refusal of service significantly increased delay and heightened safety risks to the involved motorists and towing operators. To ensure a rapid clearance towing program is embraced by the public, the service should be offered at no charge to the owners of disabled vehicles.

CHAPTER 5

# PERFORMANCE MEASURES

# 5 | PERFORMANCE MEASURES

The CAMPO Regional Incident Management Strategic Plan and Performance Assessment developed three goals for TIM in the CAMPO Region: reduce the impact of traffic incidents to travelers, reduce secondary crashes, and provide accurate and timely traveler information. As the Region expands existing TIM programs and implements new TIM strategies and programs to achieve these goals, it is important that stakeholders are able to measure progress. TIM program performance measurement can allow the Region to demonstrate accountability, process efficiency, and improvements over time; improve communications; and support future planning.

> **"What gets measured gets done. What gets measured and reported gets done well."**
> *Unknown Source*

The Federal Highway Administration defines performance measurement as the "use of statistical evidence to determine progress towards specific defined organizational objectives." A robust performance measurement program will allow the Region to measure the impacts of programs and strategies toward achieving regional goals and inform decision on which programs to continue and expand based on impacts to performance. Performance measures can help justify funding expenditures and allow the Region to make the case for increased funding on programs that are shown to be effective. Reporting of performance measures on a Regional basis also improves accountability. When performance metric results are readily available for everyone to see, agencies pay close attention to the numbers and greater emphasis is often placed on improving those metrics that are most visible.

## Key Considerations for Establishing TIM Performance Measures

In developing the regional performance measures, the CAMPO Regional Incident Management Strategic Plan and Performance Assessment took into account several key considerations to ensure that the Region was consistent with national practices and that performance measures provided a measure of the outcome of TIM strategies and programs.

The FHWA has developed a set of National TIM Program Objectives and related performance measures. These objectives and performance measures were adapted from the FHWA's Traffic Incident Management Program-Level Performance Measurement Focus State Initiative, which was developed by transportation and law enforcement organizations from 11 states including Texas. These objectives and performance measures served as the foundation for the setting TIM performance measures in the CAMPO Region. Stakeholders in the CAMPO Region universally accepted the National TIM Program Objectives and adopted them into the performance measures set by CAMPO.

**Table 9 – FHWA National TIM Program Objectives and Related Performance Measures**

| TIM Program Objective | Related Performance Measures |
|---|---|
| **Reduce Roadway Clearance Time** | Time between first recordable awareness of incident by a responsible agency and first confirmation that all lanes are available for traffic flow. |
| **Reduce Incident Clearance Time** | Time between first recordable awareness of incident by a responsible agency and time at which the last responder has left the scene. |
| **Reduce the Number of Secondary Crashes** | Number of unplanned crashes beginning with the time of detection of the primary incident where collision occurs either a) within the incident scene or b) within the queue, including the opposite direction, resulting from the original incident. |

In developing performance measures for TIM in the CAMPO region, several key considerations were discussed with stakeholders to guide development. Stakeholders wanted to develop a set of performance measures that measured the outcome of what was done, were based on data that was currently or could be available in the near future, and most importantly performance measures that could be easily understood and were meaningful to stakeholders in the Region. The following guidelines were considered when developing the regional performance measures.

**Outcomes Based Performance Measures**. Output related performance measures measure what an organization does, such as the number of closed circuit television (CCTV) cameras installed or the number of miles covered by motorist assist patrols. Outcome performance measures, such as the time for traffic to return to normal flow, measure the results of what an organization does. Performance measures that focus on outcomes of incident management strategies to assess performance, rather than outputs, were selected where possible.

**Availability**. Good performance measures are based on accurate, reliable data. Performance measures that can be collected based on data that is currently available, or could be available in the near term, were selected where possible.

**Relatability**. Performance measures should be simple and understandable. Performance measures that can be defined in terms of totals (minutes, number of crashes, etc.), can be easily understood by decision makers and stakeholders, and appear to be meaningful to most stakeholders, were selected where possible.

## Recommended Regional Performance Measures

A preliminary list of 18 performance measures was presented to stakeholders at the third CAMPO Regional Incident Management Strategic Plan and Performance Assessment workshop, conducted in May 2018. Stakeholders discussed the merits and feasibility of these performance measures, and narrowed the list down to seven high priority performance measures for implementation. The seven recommended regional performance measures directly support CAMPO's three regional incident management goals identified in this study and align with the National TIM Program Objectives. Data is generally available to implement these performance measures in the short-term on roads that are monitored by the TxDOT Traffic Management Center at CTECC. The challenges are to expand capability to collect information on freeways not monitored by TxDOT and expand capability to collect information on arterials.

**Table 10 – Recommended TIM Performance Measures for the CAMPO Region**

| Performance Measure | Definition | Data Required |
|---|---|---|
| **Roadway Clearance Time** | Defined as the time between awareness of an incident and restoration of lanes to full operational status. | • Time between first recordable awareness (detection/ notification/ verification) of incident by a responsible agency and first confirmation that all lanes are available for traffic flow |
| **Incident Clearance Time** | Defined as the time between awareness of an incident and removal of all evidence of the incident, including debris or remaining assets, from shoulders). | • Time between first recordable awareness (detection/ notification/verification) of incident by a responsible agency and time at which all evidence of incident is removed |
| **Number and Severity of Secondary Crashes** | Defined as unplanned incidents (starting at the time of detection) for which a response or intervention is taken, where a collision occurs either a) within the incident scene or b) within the queue (which could include the opposite direction) resulting from the original incidents. | • Number of total incidents (regardless of primary or secondary) and severity (National Highway Transportation Safety Administration [NHTSA] classification)<br>• Number of secondary of incidents and severity (NHTSA classification) |
| **Survey of Traveler Information Satisfaction** | Defined as the response to varies survey questions to the general public on the satisfaction of traveler information, travel times, and specific TIM programs such as HERO. | • Website feedback<br>• Surveys conducted/focus groups<br>• Service patrol comment cards<br>• 1-800 feedback system calls<br>• 511 calls |
| **Incident Influence Time (Time to Return to Normal Flow)** | Defined as the duration between the time the incident OCCURS until the time it returns to normal flow. | • Time between first recordable awareness (detection/ notification/ verification) of incident by a responsible agency and time at which an operator estimates traffic has returned to normal flow |
| **Percentage of Responders/Operators who have received TIM Training** | Defined as the number of first responder and transportation operators by agency who have received training. | • Annual training numbers reported by first responder and transportation agencies receiving training |
| **Rates of Injury or Fatality of First Responders on Incident Scene** | Defined as the annual number of injures and fatality by agency incurred why responding to or on scene of an incident. | • Law enforcement reports |

# Performance Measure Implementation

The seven performance measures identified in the CAMPO Regional Incident Management Strategic Plan and Performance Assessment can be further developed into numeric targets in the future. The following next steps should be taken to develop the performance measure targets to track the effectiveness of TIM strategies in the CAMPO Region.

**Collect Baseline Data**. The first step to meet the data requirements listed in **Table 10** for the seven recommended performance measures is to begin collecting current data. Without being able to quantify the current state of TIM in the CAMPO Region, it will not be possible to track progress. A baseline provides the basis for future evaluation of the TIM program.

Methods for collecting the data can range from querying existing databases of crash records to collecting annual TIM training numbers from CAMPO Region agencies. The goal would be to eventually move all data into an automated system for further processing and storage.

**Establish Performance Targets**. Once a solid baseline is in place, the current performance measure can be compared to other similar programs to set a starting point for the TIM program targets for each of the performance measures. The establishment of performance targets can be in the form of specific numbers or timeframe for a given measure or a percentage of change.

**Report Results**. There are many means and methods to reach specific stakeholders and groups in the local community for outreach purposes. The recommended approach to report TIM performance data to the community is an initial report to establish the expected benefits to begin the program and then quarterly, semi-annual, or annual reports providing data and analysis to confirm the paybacks in dollars, time, and safety.

**Continually Expand and Improve Program**. It is important to note that many other performance measures that may not be tracked regionally should still be tracked locally and shared regionally to better understand effectiveness of incident management strategies. Additionally, periodic TIM reviews should reevaluate the list of TIM performance measures and consider others that could be added to the list.

CHAPTER 6

# FUNDING STRATEGIES

# 6 | FUNDING STRATEGIES

As the Region continues to deepen interagency relationships in the strategic planning and tactical deployment of TIM strategies, the momentum generated for incident management should be harnessed to pursue funding for recommended TIM improvements.

> "In order to establish, maintain, and improve TIM programs, adequate and ongoing resources to support operations are needed. Program administrators must not only understand the funding process at the Federal, state, and local levels, but they must also be able to identify specific sources of monetary support appropriate for TIM and successfully compete for these funds. It can be a significant challenge to obtain and maintain funding for TIM. To overcome this challenge, the **benefits of the existing TIM investments or efforts must be marketed internally and externally**. Additional funding cannot be viewed in isolation as a panacea to address TIM challenges; however, adequate funding can help to support incremental improvements in TIM efforts by providing program equipment, personnel, or further research."
>
> *FHWA, Best Practices in Traffic Incident Management (2010)*

Any move to expand TIM efforts should consider the variety of ways funding can be obtained to help implement TIM in the CAMPO Region. This chapter describes existing TIM funding sources and investigates several avenues for the pursuit of additional TIM funding beyond what is currently programmed by stakeholder agencies, including:

**Legislative Concepts**. This section describes how ballot initiatives and other legislative measures can be used to support the funding of TIM initiatives.

**Eligible Federal Funding Sources**. There are numerous federal funding sources that could be pursued for TIM funding in the CAMPO Region, including the Highway Safety Improvement Program, the Advanced Transportation and Congestion Management Technologies Deployment Grant, and the FEMA Grant Program.

**Leveraging Motorist Assistance Programs**. Sponsorship of safety service patrol programs by private sector companies such as State Farm can provide funding for a portion of the patrol program's operating costs. 19 states are currently using this funding mechanism.

**Private Sector Funding**. Special interest foundations or corporate sponsorships may be a good source of TIM funding. While this is not a common funding model across the nation, the CAMPO Region could pursue private sector funding and be a pioneer in this domain.

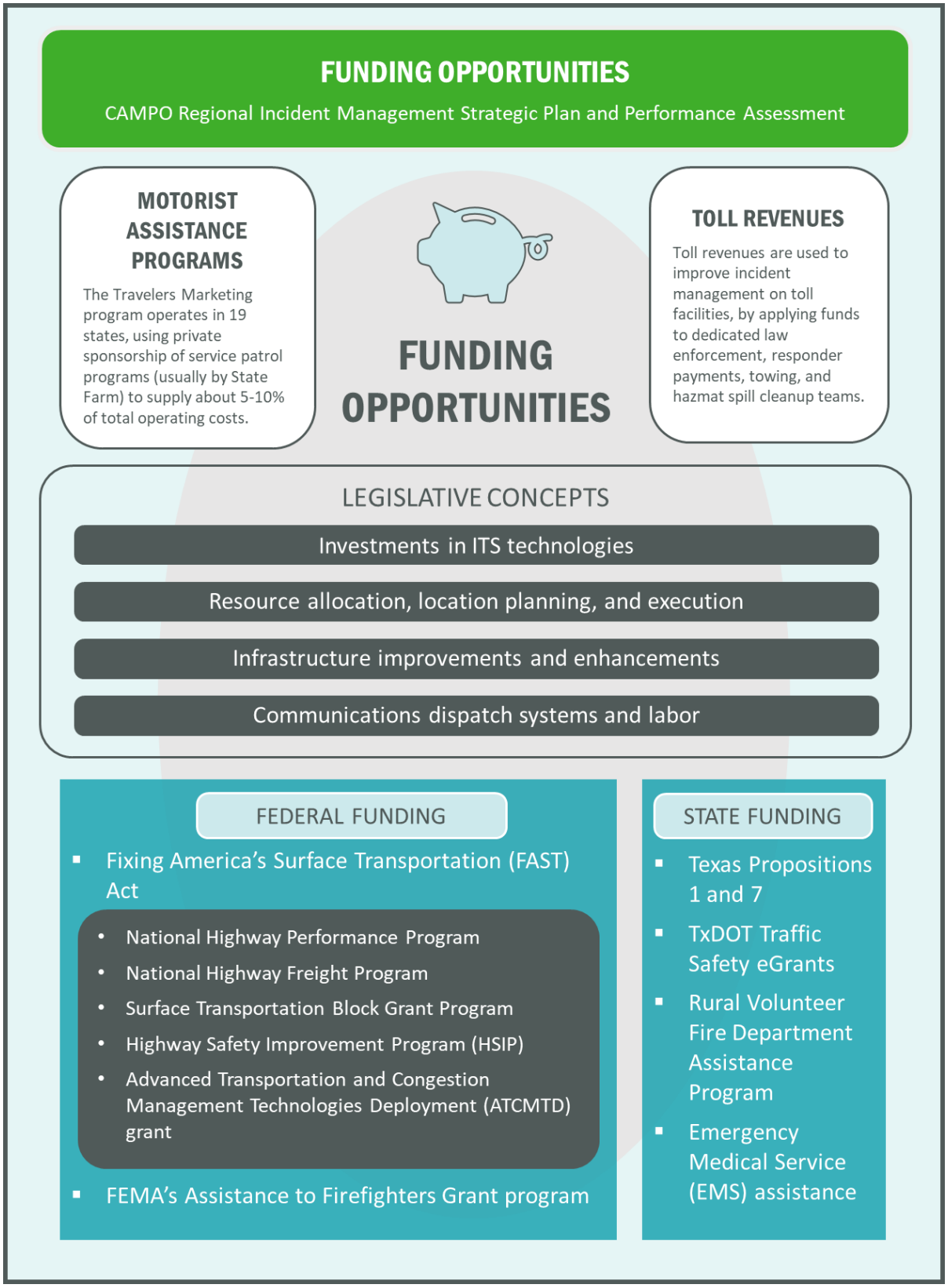



Figure 14 – Summary of Funding Opportunities

# Legislative Concepts

Legislative support for TIM programming generally consists of passing state laws on driver removal, authority removal, and motorist-responder safety with a move-over or slow-down message. As noted in Chapter 3 of this report, Texas has a foundation of statewide legislation that is supportive of TIM operations. Statewide laws can also be supplemented by local ordinances, such as the Austin ordinance establishing its Rush Hour Rapid Response towing program.

**Legislation**. There is no identifiable existing legislation in the United States that directs funding to specific traffic operations or TIM functions. In states where ballot initiatives are used for local sales tax increases or bond initiatives to fund transportation, they are largely for investment in roadway or transit capital improvements, not operations or TIM. Therefore, it is often necessary to identify alternative funding sources to fund TIM programs. The specific types of TIM improvements that legislation could direct funding to include:

- Investment in ITS technologies;
- Resource allocation/location planning and execution;
- Infrastructure improvements and enhancements; or
- Communications and dispatch systems and labor.

**Ballot Initiatives**. One noteworthy national trend in recent years is ballot initiatives for transportation bonds and local transportation-focused sales tax increases. The American Road and Transportation Builders Association (ARTBA) tracks the initiatives and has reported more than 65% of ballot initiatives have passed in recent years. In 2017, there were over 249 transportation-related ballot initiatives, and 213 (over 85%) passed, for a total of $8.1 billion in state and local funds approved. In addition, ARTBA reports that 2017 included over 140 transportation funding measures in 38 states. 29 funding measures passed in legislatures in 23 states, for over $69 billion in new transportation revenue through legislation.

Most initiatives state that funding must be used for transportation infrastructure (capital expenditures), and some allow for maintenance. A review of the descriptions and limitations of many of the 2017 initiatives indicates the majority are clearly dedicated for transportation construction and maintenance, which may not allow for TIM funding. However, several initiatives could potentially be used for TIM programs, since the initiative had a stated objectives of congestion mitigation.

Voters in Austin have shown that they are willing to invest in improved mobility. The voter-approved 2016 Mobility Bond Program focused on regional mobility, corridor mobility, and local mobility projects to create a more robust transportation system. Some 95 local projects were included in the $720 million bond investment. While this bond program does not designate funds for TIM or operations, a future ballot measure could potentially provide a revenue stream for TIM programming.

# Eligible Federal and State Funding Sources

Federal Aid Highway funding that can be used in the CAMPO Region for incident management-related projects and programs is summarized in **Table 11**. Also included in this list is funding from Texas Propositions 1 and 7, which authorized constitutional amendments for transportation funding in Texas and provided approximately $110M in CAMPO funding in 2018. In addition to the funding summarized in **Table 11**, several other potential funding sources are also described below.

**Table 11 – Federal and State Funding Sources**

| Funding Program | Estimated Annual Amount | Funding Region | Funding Category |
|---|---|---|---|
| **National Highway Performance Program** | $2.18B | State of Texas | Federal |
| **National Highway Freight Program** | $110M | State of Texas | Federal |
| **Highway Safety Improvement Program** | $13M | TxDOT Austin District | Federal |
| **Surface Transportation Block Grant Program** | $32M | CAMPO Region | Federal |
| **Texas Propositions 1 and 7** | $110M | CAMPO Region | State |

*Data Sources: FHWA, CAMPO, and TxDOT*

**Highway Safety Improvement Program**. Access to Highway Safety Improvement Program (HSIP) federal funding sources is a state-by-state decision, but states including Tennessee, Pennsylvania, and Ohio have leveraged HSIP funding specifically for TIM activities, since they help mitigate highway safety issues.

23 U.S. Code § 148 specifies the types of projects that qualify for HSIP funds, most of which are infrastructure related. HSIP funding must be tied to the goals of the State Strategic Highway Safety Plan, and address not only engineering, but also management, operations, education, enforcement, and emergency service elements. Examples of HSIP-permitted non-infrastructure inclusions that are eligible for FAST Act funding and support TIM initiatives include the following.

- Collection, analysis, and improvement of safety data;
- Road safety audits, a formal safety performance examination of existing or future highways by an independent multidisciplinary audit team;
- Transportation safety planning; and
- Planning integrated, interoperable emergency communications equipment, operational activities, and traffic enforcement activities (including police assistance) relating to work zone safety.

**Advanced Transportation & Congestion Management Technologies Deployment Grant**. One of the newer funding sources under the FAST Act is a $60M annual allocation called "Advanced Transportation and Congestion Management Technologies Deployment" grants. A TIM-related program would qualify for consideration, but none has yet been awarded specifically to a

targeted TIM program. According to the USDOT, which reviews potential projects in the spring of each year, some of the expected benefits of programs and projects funded by the grant include reduced traffic-related fatalities and injuries, reduced traffic congestion, and improved travel time reliability. All of these benefits could be further realized through improved TIM.

**FEMA Grant Program**. Though not expressly a source of highway funding, FEMA's Assistance to Firefighters Grant (AFG) program can provide fire departments and nonaffiliated emergency medical service organizations with equipment, protective gear, emergency vehicles, training, and other resources necessary for protecting the public and emergency personnel from fire and related hazards, according to FEMA. In the 2016 grant year, the Austin Fire Department received $58,875 and San Marcos received $365,400 for equipment.

The Staffing for Adequate Fire and Emergency Response Grants (SAFER) grants specifically assist in increasing the number of firefighters. In 2016, the Leander Fire Department received $1,408,502 and the Pflugerville Fire Department received $1,450,237 for hiring, according to the SAFER website (https://www.fema.gov/staffing-adequate-fire-emergency-response-grants-grantee-award-year-2016).

**Additional Funding Sources**. There are several other funding opportunities identified by this plan that could be leveraged to support TIM projects and programs.

The State of Texas coordinates grants for rural fire service training and equipment through the Rural Volunteer Fire Department Assistance Program as part of the Texas Forest Service. (http://texasforestservice.tamu.edu/RuralVFDAssistanceProgram/)

Emergency medical service (EMS) assistance is coordinated through the Office of EMS/Trauma Systems, Department of State Health Services, in the form of grants, training funds, and other funding streams. (https://www.dshs.texas.gov/emstraumasystems/efunding.shtm)

Education and outreach activities aimed at both responders and motorists may find a funding source in the TxDOT Traffic Safety eGrants program, which focuses spending in a variety of areas to reduce traffic deaths. (https://www.txdot.gov/government/funding/egrants.html)

## Leveraging Safety Service Patrol Programs

Another possible source of incident management funding is contracting a company to partially subsidize the HERO program. Arrangements are largely driven by the sponsorship value to the business and the contracting agency.

FHWA's Office of Transportation Operations addressed the issue of motorist assistance patrols in April of 2008 (HOTO-1, April 23, 2008), when it presented options to include:

- Joint funding by state DOT and MPO;
- Police or other dispatch and administrative cost sharing;
- Public/private partnership with a sponsor private sector partner(s);
- Selection of sponsors with a strong commitment to highway safety and customer service (such as the State Farm Assist Patrol Program) to maintain agency integrity; and
- Logos of sponsoring government agencies along with a sponsor business.

The motorist assistance program operated by Travelers Marketing is now in 19 states: Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Wisconsin. All but Massachusetts are under State Farm sponsorship. These sponsorships typically supply about 5-10% of operating costs for the patrol program.

## Private Sector Funding

Private sector funding normally comes from corporate sources directly, or through charitable foundations. Likewise, community foundations will often fund specific programming on an ad hoc or sustaining basis. Special interest foundations may fund only a specific type of program or activity, and are the third most likely source.

Community foundations often fund programs that support safety initiatives. For example, the Firehouse Subs Public Safety Foundation (https://firehousesubsfoundation.org) has given more than $33 million in 46 different states (including Puerto Rico and Canada) to more than 3,300 organizations. In 2017, the foundation funded 359 sets of bunker gear, 134 thermal imaging cameras, 664 AED units, 20 ATVs, 104 extrication tools and 268 bulletproof vests, for example. The organization is an outgrowth of a business begun by firefighters, with a shared vision for better, safer, response.

While there is little evidence that foundations or other private funding is being used successfully for TIM programs in other regions, CAMPO could be a leader in this advancement. The Texas Association of Non-Profit Organizations (TANO) could be a starting point for further grant exploration.

Creation of a non-profit organization dedicated to traffic safety and incident management may be a way to attract additional funding if the appropriate agency to create such a non-profit can be identified. A non-profit organization would permit donations from a variety of sources. Iowa DOT is now considering financial support for a TIM training facility through donations to a 501(c)(3) organization. Improved interagency TIM coordination is an added benefit, since the non-profit organizations will likely be comprised of a board of emergency responders with a vested interest in its overall success.

# Summary of Funding Strategies

Funding is a means of providing growth opportunities. The U.S. Fire Administration offers advice that is applicable to all responder and support agencies.

> *"There are a variety of private-funding sources available through nonprofit foundations and corporate-giving programs that may apply to emergency medical services (EMS) and fire services. Typically, these are onetime grants. Sometimes, the funding is multiyear. Virtually none are for continued support of general operating expenses. However, private foundations and corporations are an excellent source of revenue providing grants for program planning, seed money for start-up costs, management and technical assistance, facility and equipment funding, and program-related investments. Private organizations are also a good source for in-kind donations of materials and services, and low-interest loans."*
>
> *U.S. Fire Administration Funding Alternatives for Emergency Medical and Fire Services FA-331/April 2012*

Most TIM programs are nearly totally dependent on local and state government tax dollars, or administration of federal tax dollars. TIM programs compete with planning, design, construction, and maintenance funding through DOTs, and competes with individual emergency services for funds.

The CAMPO Region is not alone in its interest in expanding funding for TIM services. There is no evidence of any locality, planning region, or state that is a clear leader in diversification of creative financing with a "silver bullet" solution. Successfully funded TIM programs are those with clear champions, well-defined business processes, and a culture of operations.

The MPO leadership model makes sense from a programmatic standpoint, but may not be the best structure to receive increased investment. MPOs by regulation are not permitted to raise public funds through taxation. Partner investments can be coordinated under the structure, but receipt of funds may be limited, dependent on investor preferences.

The CAMPO Region can support its TIM efforts most effectively by continuing to engage the community in a cooperative search for appropriate funding streams, with shared mobility and safety benefits.

CHAPTER 7

# NEXT STEPS

# 7 | NEXT STEPS

Agencies in the CAMPO Region have made significant strides towards improving TIM in recent years. While much has been accomplished, there remain significant opportunities to improve TIM and reduce the impacts of traffic incidents in the Region. As the CAMPO Region continues to grow in population and the road network becomes increasingly stretched beyond capacity, the need to quickly and safely clear incidents becomes even greater in order to reduce congestion and improve the safety and reliability of the transportation network.

The CAMPO Regional Incident Management Strategic Plan and Performance Assessment developed a total of 29 recommendations to improve TIM in the CAMPO Region. Implementation of these recommendations will be led by CAMPO, TxDOT, municipalities or other agencies as discussed in Chapter 4. To accelerate implementation of several recommendations that are expected to yield a high benefit-cost ratio and serve as foundation programs for other TIM activities, it is recommended that CAMPO take a leadership role to implement six key policies and programs in the near-term. These policies and programs are described in **Table 12**.

**Table 12 – Recommended Near-Term CAMPO Regional Incident Management Tasks**

| Task | Description |
|---|---|
| **Develop a Regional Open Roads Policy** | Develop a Regional Open Roads Policy for review and approval by local law enforcement, first responder, and traffic management agencies throughout the Region. |
| **Develop a Standardized HAZMAT and Non-HAZMAT Clean-up Policy for the Region** | Research national best practices and assemble stakeholder input to develop regional standards for the cleanup of incidents involving HAZMAT and non-HAZMAT spills. |
| **Develop a Framework for a Regional Rapid Clear Towing Program** | Investigate the benefits to the Region of providing rapid clear towing for incident management, research possible funding mechanisms for such a program, and recommend a program implementation strategy. |
| **Develop a Framework for an I-35 Heavy Tow Program** | Collaborate with CAMPO, TxDOT, and local agencies along I-35 in the CAMPO Region to develop a framework for a regionally administered heavy wrecker towing service available for use by any agency responding to a major incident on I-35. |
| **Develop a Standardized Data Collection and Performance Measures Framework for the Region** | Assess data needs of specific agencies and develop a framework for integrating data sources so that TIM data can be collected and shared regionally to track performance. |
| **Develop a Regional State of Traffic Incident Management Report** | Analyze existing TIM data from across the CAMPO Region and compare this data to established regional performance goals in a "State of TIM" report written for a public audience. |

Any successful TIM program will rely on coordination and cooperation between transportation and public safety agencies. In the CAMPO Region, stakeholders have continuously demonstrated a strong preference towards regional cooperation. Efforts such as the AIMHigh Regional Incident Management Task Force, implementation and operation of CTECC, and most recently the development of CAMPO Regional Incident Management Strategic Plan and Performance Assessment have proven stakeholders in the CAMPO Region are very willing to work towards common goals related to TIM. Continued cooperation in the CAMPO Region and a focus on implementation of the recommendations identified in this plan will allow the Region to realize the full benefits of TIM, including reduced congestion, increased safety, and improved reliability for travelers throughout Central Texas.

# APPENDIX
# COST-BENEFIT ANALYSIS

# APPENDIX | COST-BENEFIT ANALYSIS

As discussed in **Chapter 4**, a cost-benefit analysis was performed for a subset of recommendations presented in the CAMPO Regional Incident Management Strategic Plan and Performance Assessment. The cost-benefit analysis focused on projects for which quantitative data was available and whose analysis methods were approved by the Study Steering Committee. The results of this analysis inform the "Estimated Scores" in **Figure 11** for these strategies.

VISSIM software was used to develop a quantitative traffic model to assess costs and benefits related to non-recurring traffic incidents and subsequent incident management efforts. Confidence levels and assumptions are recorded in this Appendix for each strategy. Confidence levels reflect the level of faith in the analysis methodology and accuracy of available data, based on the following guidelines:

- **High** confidence levels were recorded for analysis methods that included data specific to the CAMPO Region, such as crash data and HERO patrol assists.
- **Medium** confidence levels were recorded for methods that were based on accepted national or statewide standard values.
- **Low** confidence levels were recorded for methods that relied upon assumptions and qualitative information from stakeholder interviews, in lieu of available local data.

Benefit-cost results can be found in the **Table 13** on the following page.

This Appendix provides more information about the methodology and corridor-by-corridor results for each analysis

## HERO FREEWAY SAFETY SERVICE PATROL

Cost-benefit analysis was performed for the existing HERO program, as well as for possible expansion of the program to arterials and additional freeways in the Region.

### Existing HERO Program

The HERO program provides direct assistance to stranded motorists within the CAMPO region, and as of 2018 this assistance is provided along 138 miles of roadway. The HERO program assists with traffic incident management by reducing the amount of time that vehicles are stranded in a travel lane or on the shoulder of a road.

In late 2017, new contract language expanded HERO's capabilities and geographic scope. As a result, HERO operators are now trained to assist in incident management activities related to vehicle collisions. The geographic scope of services was also expanded. HERO now currently operates on portions of I-35, Texas Loop 1 (MoPac), US Highway 183, Texas State Highway 71, and US Highway 290. HERO vehicles also patrol smaller arterial roadway segments of US Highway 183 and Texas State Highway 71.

**Table 13 – Benefit-Cost Ratios for TIM Recommendations Allowing Quantitative Analysis**

| Strategy | | Benefit-Cost Ratio | | Data Confidence Level |
|---|---|---|---|---|
| | | Analysis Corridor with Lowest Ratio | Analysis Corridor with Highest Ratio | |
| **Existing HERO Program** | | N/A | 34 | High |
| **HERO Program Expansion** | Additional Freeways | 2 | 3 | Medium |
| | Regional Arterials | 1 | 5 | Low |
| **Peak Hour Rapid Response Tow** | Additional Freeways | 2 | 20 | High |
| | Regional Arterials | <1 | 21 | Medium |
| **DMS** | Additional Freeways | <1 | 8 | Low |
| | Regional Arterials | <1 | 3 | Low |
| | Rural Decision Points | 2 | 4 | Low |
| **Additional Freeway Lighting** | | N/A | 40 | Medium |
| **CCTV Camera Freeway Coverage** | | 2 | 15 | Medium |
| **Prescribed Traffic Bypass of I-35 via SH 130** | | N/A | 12 | Low |

Cost-benefit analysis results of the HERO program are calculated using incident response data from both before and after the expansion of the HERO program that occurred in late 2017. Results do not consider costs or benefits associated with arterial HERO program operations. From this analysis and preliminary 2018 data, it appears that the benefit-cost performance of the overall program has improved since the new contract took effect.

### HERO Program Expansion to Additional Freeways

The HERO program is planned to contain additional phased expansions to other freeway facilities within the CAMPO Region, including State Highway 130, State Route 183A, State Route 290, State Route 45, and an additional segment of State Loop 1. Based upon existing crash rates and traffic volumes along these facilities and discussions with CAMPO and the Study Steering Committee, the existing HERO program characteristics were applied as a test fit to these roadways to determine whether a geographic expansion of the program might yield a positive benefit-cost ratio. Notably, the FHWA TIM-BC Tool requires a minimum hourly volume input of 500 vehicles per hour per lane to produce analysis results. Most segments of other freeway

facilities in the region have peak period hourly volumes that fail to reach this minimum hourly volume threshold, so these facilities were not analyzed.

Several facilities that are not yet covered by HERO patrol met the minimum hourly volume thresholds specified by the tool. The portion of State Loop 1 (north of Parmer Lane) and the portion of State Highway 45 (between State Loop 1 and State Highway 130) currently have hourly per-lane volumes that exceed analysis minimums in both peak periods and off-peak periods. The portion of State Highway 130 between the Travis/Caldwell County Lane and the northern terminus at I-35 in Georgetown currently have hourly per-lane volumes that generally exceed analysis minimums in both peak periods, but not in the off-peak periods. In several cases, volumes less than 5% below the minimum threshold were rounded up to the minimum value to make the analysis possible.

Two HERO patrol expansion options were analyzed individually to determine a benefit-cost ratio associated with the extension of service: a combination State Loop 1/State Highway 45 service expansion and a State Highway 130 service expansion.

**HERO Program Expansion to Regional Arterials**

Currently, the HERO program operates mostly on freeways within the CAMPO Region. Of the 138 miles of roadway currently in HERO coverage, however, approximately 26 miles of the HERO network are on arterial roadways within the region. Existing arterial roadways serviced by the HERO patrol include portions of US 183, US 290, and Texas SH 71. Future expansion plans for the program show that the service patrol will include additional arterial facilities such as FM 620, Texas Loop 360, and a portion of US 79 in subsequent phases of program expansion. To test the benefit-cost ratio of an arterial service patrol in the CAMPO Region, existing HERO program characteristics as well as roadway-specific volume and crash data were applied as a test fit to determine for which types of arterial roadways a service patrol might yield a positive benefit-cost ratio.

Since no FHWA tools exist to examine the effects of incidents on traffic for non-freeway facilities, effects were calculated by creating generic traffic models using VISSIM software for three road types: rural highways, regional connectors, and urban through routes. Two road segments of each road type (selected based on discussions with CAMPO and the Study Steering Committee) were analyzed during peak traffic hours of 6 to 9 AM and 4 to 7 PM. The generic nature of the models was required since modeling each individual roadway to be studied according to each one's specific geometric and traffic characteristics was not within the scope of this study. Results are intended to provide order-of-magnitude level insight on the potential cost-effectiveness of an arterial service patrol on each test fit roadway.

A summary of benefit-cost results for HERO expansion to regional arterials is as follows:

- Both rural highway segments that were analyzed with a HERO-style service patrol yielded program benefit-cost ratios that were less than 1 (breakeven performance). As a result, arterial service patrols are not recommended for rural highways within the region.
- When regional connectors were analyzed, conditions along Texas Loop 360 yielded a service patrol program benefit-cost ratio greater than 1, while conditions along the northern portion of FM 620 yielded a service patrol program benefit-cost ratio less than 1.

- Both urban through routes analyzed (Lamar Blvd from US 290 to US 183, and FM 1431 from US 183 to I-35) for arterial service patrol performance yielded benefit-cost ratios well above breakeven performance.

## PEAK HOUR RAPID RESPONSE TOWING

Cost-benefit analysis was performed for the implementation of peak hour rapid response towing on arterials and additional freeways in the Region.

### Freeway Expansion

In order to be eligible for the City of Austin's towing contract, towing companies must agree to provide towing services to remove disabled vehicles from the roadway free of charge during peak hour "zone times" (6-9 a.m. and 4-7 p.m.) along some of the freeways that pass through the city. This service relocates vehicles from travel lanes or shoulders on the freeway to nearby parking lots where they no longer impact traffic flow, thereby reducing associated delays and risks of secondary incidents. The program uses location-based dispatch and performance measurement to ensure prompt response times from towing service providers.

Currently this program is available only within the City of Austin. A similar program could be applied at a regional level, however, if a funding scheme were determined to subsidize the cost of the program. Similar programs elsewhere in Texas have either completely subsidized the cost of these tows or else have partially subsidized the cost, leaving the rest of the cost to be covered by owners of the towed vehicles.

The existing Austin Rush Hour Rapid Response program was analyzed, and a potential program was analyzed at a per-assist level for several other test fit freeway segments representative of those throughout the CAMPO Region. The benefit-cost ratio assumes full subsidization of towing costs. The benefit-cost ratios would improve further if vehicle owners paid for part of the cost of each tow.

### Arterial Deployment

In order to be eligible for the City of Austin's towing contract, towing companies must agree to provide towing services to remove disabled vehicles from certain freeway segments free of charge during peak hour "zone times" (6-9 a.m. and 4-7 p.m.). This service relocates vehicles from travel lanes or shoulders on the freeway to nearby parking lots where they no longer impact traffic flow, thereby reducing associated delays and risks of secondary incidents. The program uses location-based dispatch and performance measurement to ensure prompt response times from towing service providers.

While this program is currently only available on freeways and freeway frontage roads within the City of Austin, such a program could be expanded to other key arterials throughout the CAMPO Region if a funding scheme were determined to subsidize the cost of the program. Similar programs elsewhere in Texas have either completely subsidized the cost of these tows or else have partially subsidized the cost, leaving the rest of the cost to be covered by owners of the towed vehicles.

Performance data from the existing Austin Rush Hour Rapid Response program was analyzed, and a potential peak hour no-cost arterial towing service program was analyzed at a per-assist

level for several other test fit arterial segments representative of those throughout the CAMPO Region. Since no FHWA tools exist to examine the effects of incidents on traffic for non-freeway facilities, effects were calculated by creating generic traffic models using VISSIM software for three road types: rural highways, regional connectors, and urban through routes. Two road segments of each road type were analyzed during peak traffic hours of 6-9 a.m. and 4-7 p.m. The generic nature of the models was required since modelling each individual roadway to be studied according to each one's specific geometric and traffic characteristics was not within the scope of this study. Results are intended to provide order-of-magnitude level insight on the potential cost-effectiveness of an arterial service patrol on each test fit roadway.

The benefit-cost ratio assumes full subsidization of towing costs. The benefit-cost ratios would improve further if vehicle owners paid for part of the cost of each tow. Both rural highway segments that were analyzed yielded program benefit-cost ratios that were less than 1 (breakeven performance). As a result, no-cost arterial towing services are not recommended for rural highways within the region. By comparison, both urban through routes that were analyzed yielded program benefit-cost ratios greater than 10, suggesting that the CAMPO Region would benefit from a program that efficiently removed disabled vehicles from busy urban arterials.

## DYNAMIC MESSAGE SIGNS

Cost-benefit analysis was performed for the implementation of dynamic message signs (DMS) on arterials and additional freeways in the Region, including installations at key rural decision points.

### DMS on Additional Freeways

DMS are used for many purposes, including inclement weather messages, public service announcements, amber and silver alerts, work zone information, and detour routes. For this analysis, only the benefits of DMS specific to incident management were estimated, using the Wisconsin Department of Transportation's (WisDOT) Transportation Systems Management and Operations Project Benefits Analysis tool (similar to the Federal Highway Administration's TOPS-BC tool). It is important to note that if other benefits unrelated to TIM were also considered in this analysis, the resulting benefit-cost ratios would improve.

The WisDOT Project Benefits Analysis tool considers factors including the average number of traffic incidents per year on a study corridor where resulting driver decision would be affected by DMS, average incident duration, traffic volumes, and an estimate of the average travel time savings for a driver acting on the information posted on DMS. Several freeway corridors with DMS implementation planned as a part of the TxDOT Austin District ITS Master Plan were analyzed using this tool. Program costs include construction costs for the DMS units (annualized over the expected lifetime of the DMS unit), operating costs, and maintenance costs. Corridor costs were largely dependent upon the number of DMS units planned for installation in the ITS Master Plan for that corridor, so it was assumed that as the number of DMS units on a corridor increased, the percentage of travelers adjusting travel routes based on the DMS message also increased.

**DMS on Regional Arterials**

The existing TxDOT Austin District ITS Master Plan includes several DMS implementation projects along key arterial roadways within the CAMPO Region, including Loop 360, FM 620, and Parmer Lane. For this analysis, the benefits of proposed DMS specific to incident management were estimated, using the Wisconsin Department of Transportation's (WisDOT) Transportation Systems Management and Operations Project Benefits Analysis tool (similar to the Federal Highway Administration's TOPS-BC tool). It is important to note that if other benefits unrelated to TIM were also considered in this analysis, the resulting benefit-cost ratios would improve.

The WisDOT Project Benefits Analysis tool considers factors including the average number of traffic incidents per year on a study corridor where resulting driver decision would be affected by DMS, average incident duration, traffic volumes, and an estimate of the average travel time savings for a driver acting on the information posted on DMS. Several regional arterial corridors with DMS implementation planned as a part of the TxDOT Austin District ITS Master Plan were analyzed using this tool. Program costs include construction costs for the DMS units (annualized over the expected lifetime of the DMS unit), operating costs, and maintenance costs. Corridor costs were largely dependent upon the number of DMS units planned for installation in the ITS Master Plan for that corridor, so it was assumed that as the number of DMS units on a corridor increased, the percentage of travelers adjusting travel routes based on the DMS message also increased. Note that Parmer Lane shows a better benefit-cost ratio than the other study roads because the ITS Master Plan states that smaller, less expensive DMS units will be used on this road.

**DMS at Rural Decision Points**

During stakeholder discussions, TxDOT had expressed interest in investigating the impact that DMS units could have in communicating traveler information on roads leading into and out of Austin regarding unplanned road closures or major traffic incidents. These DMS units could be placed ahead of key decision points where routing choices were limited because of constricting elements of geography such as river crossings. The project team identified rural portions of US 290 and SH 71 as candidates for rural DMS implementation.

For this analysis, the benefits of proposed DMS specific to incident management were estimated, using the Wisconsin Department of Transportation's (WisDOT) Transportation Systems Management and Operations Project Benefits Analysis tool (similar to the Federal Highway Administration's TOPS-BC tool). It is important to note that if other benefits unrelated to TIM were also considered in this analysis, the resulting benefit-cost ratios would improve.

The WisDOT Project Benefits Analysis tool considers factors including the average number of traffic incidents per year on a study corridor where resulting driver decision would be affected by DMS, average incident duration, traffic volumes, and an estimate of the average travel time savings for a driver acting on the information posted on DMS. None of the rural test corridors featured planned DMS implementation as a part of the TxDOT Austin District ITS Master Plan, so program costs were calculated from those derived for another planned DMS unit implementation project along Texas Loop 360. Program costs include construction costs for the DMS units (annualized over the expected lifetime of the DMS unit), operating costs, and

maintenance costs. Because of the rural nature of these roads, benefit assumptions differ from the similar analyses completed for freeway and regional arterial DMS implementations.

### ADDITIONAL FREEWAY LIGHTING

Additional freeway lighting was cited as a critical need by the City of Kyle Police Department during stakeholder interviews, for the prevention of secondary crashes with disabled vehicles on I-35 at night. (While the benefit-cost analysis for this project used historical data provided by the Kyle Police Department to estimate the general benefit-cost ratio for additional freeway lighting, the City of Round Rock also reported the need for additional lighting along I-35, and it is anticipated that other municipalities or counties in the CAMPO Region could have the same need.)

The project team and Study Steering Committee agreed that it is not sound logic to extrapolate purely from crash data that includes location and time of day whether lack of lighting was the primary factor in a secondary crash. For this reason, only crashes identified by the Kyle Police Department as strongly influenced by lack of lighting have been included in this analysis, and a factor of 50% was applied to calculated benefits because other factors besides lighting could have contributed to the fatal crashes, such as intoxicated driving.

### CCTV CAMERA FREEWAY COVERAGE

While CCTV cameras do not play a direct role in many parts of incident response, they can help to hasten the detection of incidents as they happen, thereby reducing the overall duration of an incident. Cameras also allow traffic management personnel to maintain surveillance of the incident throughout the response, potentially allowing for improved coordination of response efforts.

The TxDOT Austin District ITS Master Plan includes CCTV installation plans for several freeway corridors that do not currently have CCTV coverage. These corridors are analyzed to determine potential benefits related to improved incident detection, and those benefits are compared to installation, operation, and maintenance costs for the CCTV cameras. In some cases, much of the benefits that CCTV could provide in terms of improved detection capability is negated by the existing presence of HERO patrol vehicles. In talks with CTECC staff, HERO vehicle operators generally detect an incident before CTECC personnel do, even if CCTV is present in the area of the incident. This analysis accounts for a reduced impact of CCTV implementation in locations where HERO already patrols the roadway. As a result, corridors that do not yet have HERO patrolling the roadway will show a higher benefit from CCTV implementation.

The FHWA TIM-BC Tool Shared Quick Clearance Agreements Module was used to complete this analysis. Regional Performance Measures

### PRESCRIBED TRAFFIC BYPASS OF I-35 VIA SH 130

One potential application of DMS unit implementation on freeways would be using DMS to advise travelers to use a specific alternate, parallel route. In discussions with TxDOT, representatives from the traffic operations division and the toll operations division both expressed interest in developing a system of coordinated response following a major incident on I-35. This response would consist of the TxDOT Toll Operations Division temporarily waiving toll

charges along SH 45 south and SH 130, and CTECC operators broadcasting information on DMS at approaches to the I-35/SH 130 decision points about the incident and available alternate route and waived tolls. For this analysis, the benefits of DMS specific to travelers adjusting their route from I-35 to SH 130 were estimated, using the Wisconsin Department of Transportation's (WisDOT) Transportation Systems Management and Operations Project Benefits Analysis tool (similar to the Federal Highway Administration's TOPS-BC tool). It is important to note that if other benefits unrelated to TIM were also considered in this analysis, the resulting benefit-cost ratios would improve.

The WisDOT Project Benefits Analysis tool considers factors including the average number of traffic incidents per year on a study corridor where resulting driver decision would be affected by DMS, average incident duration, traffic volumes, and an estimate of the average travel time savings for a driver acting on the information posted on DMS. Program costs include construction costs for the DMS units (annualized over the expected lifetime of the DMS unit), operating costs, and maintenance costs.

Date: October 15, 2018
Continued From: N/A
Action Requested: Information

| | |
|---|---|
| **To:** | Technical Advisory Committee |
| **From:** | Ms. Doise Miers, Community Outreach Manager |
| **Agenda Item:** | 9 |
| **Subject:** | Update on Public Participation Plan (PPP) |

## RECOMMENDATION

None. This item is for information purposes only.

## PURPOSE AND EXECUTIVE SUMMARY

CAMPO's Public Participation Plan was last updated in 2015. Since that time, CAMPO has added planning processes and the FAST Act was passed by Congress. Additionally, outreach tools and strategies have evolved.

This Draft PPP adds language to comply with FAST Act requirements and also adds outreach requirements for CAMPO's planning studies. This update replaces the tiered system with a system based on the planning document type. The update also adds outreach practices described in the appendix.

## FINANCIAL IMPACT

None.

## SUPPORTING DOCUMENTS

*Draft PPP*

*Draft PPP Update Summary*

CENTRAL TEXAS

# CAMPO

CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

# 2018 Public Participation Plan


**Adopted: April 2, 2012 Amended: March 5, 2014 Amended: August 31,2015**
**Amended: XXXXX 2018**

**Disclaimer**

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# CONTENTS

## Providing a Fair and Equal Opportunity to Participate

As the metropolitan planning organization encompassing Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson counties, the Capital Area Metropolitan Planning Organization (CAMPO) has a responsibility to serve the community and stakeholders and provide equitable access to participate and provide input in the decision-making process.

Governed by the 21-member Transportation Policy Board representing local governments and agencies, CAMPO believes that conversation, engagement, and transparency among stakeholders is key to meaningful and lasting mobility changes across its six counties.

Federal and state transportation planning laws[1] and guidance require open participation, regardless of geographic location, economic and educational status, or race. CAMPO's Public Participation Plan outlines how the organization responds to the requirements set by federal and state guidance and provides examples of how CAMPO is going above and beyond these basic requirements and enhancing participation, communication, and access to the region's transportation planning process.



## Limited English Proficiency and Environmental Justice

As a federally sponsored agency, CAMPO must incorporate policies and procedures of Environmental Justice and Limited English Proficiency into its transportation planning studies and programs. CAMPO incorporates these policies into the required programs and is committed to giving a voice to those historically underrepresented in transportation planning efforts—including residents of rural areas, those of lower socioeconomic status, people of color, immigrants, and individuals with disabilities—outreach to minority and traditionally underserved communities is a key component of CAMPO's work.

Executive Order (E.O.) 13166 "Improving Access to Services for Persons with Limited English Proficiency" challenges federal agencies to "implement a system by which [limited English-proficient or "LEP"] persons can meaningfully access services consistent with, and without unduly burdening, the fundamental mission of the agency."[2]

Additionally, Executive Order 1 2898, "Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations" directs every Federal agency to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on minority populations and low-income populations. The Federal Highway Administration summarizes this charge to metropolitan planning organizations to evaluate and, where necessary, improve their public involvement processes to eliminate participation barriers and engage minority and low-income populations in transportation decision making."[3]

1 Such as Title VI of the Civil Rights Act of 1964, Executive Orders 12898 and 13166.
2 Federal Highway Administration. n.d. Limited English Proficiency
3 Federal Highway Administration. 2000. An Overview of Transportation and Environmental Justice. Publication No. FHWA-EP-00-013.

## Participation Objective and Strategies

This document acts as the update to the 2015 CAMPO Public Participation Program (2015 PPP) and serves to ensure that all citizens have an equal opportunity to participate in the CAMPO decision-making process. Recognizing the importance of public involvement throughout the transportation planning process, this Public Participation Plan (PPP) is intended to actively engage people in the process.[4]

To support this objective, CAMPO deliberately plans inclusive, diverse public participation programs as part of its transportation planning processes. CAMPO's public participation programs include collaboration with local governments and agencies, schools, and a wide variety of special interest groups including, but not limited to, public and private transportation employees and stakeholders, freight interests, bicycle and pedestrian stakeholders, and stakeholders with and representing those with disabilities. These public participation programs also include communication and outreach methods specifically tailored to audiences and stakeholders. The following strategies are adapted from federal planning rules and guides CAMPO's public participation programs.

### OBJECTIVE:

**Provide a forum that empowers all stakeholders and demographics with equitable access to participate and provide input in the transportation planning and decision-making process.**

### STRATEGIES:

- **Provide public notice of public participation activities using appropriate methods and time for public review and comment at key decision points.**
- **Notify and provide access to information about transportation issues and processes in a timely fashion, using various print and electronically accessible formats.**
- **Use visualizations and clear, concise, non-technical language to describe proposed changes.**
- **Hold public open houses at convenient times and locations.**
- **Demonstrate explicit consideration and response to public input received during the development of the regional transportation plan and transportation improvement program.**
- **Seek out low-income and minority environmental justice households and vulnerable populations[5], who may face challenges accessing employment and other services.**
- **If a final regional transportation plan and transportation improvement program varies significantly from the public comment version, provide additional opportunities for public comment.**
- **Coordinate with statewide participation processes.**
- **Evaluate effectiveness of participation methods.**
- **Review and update this participation plan as needed to ensure a full and open process.**



4 Sanoff, Henry. 2007. Participation in Planning and Urban Design Standards. Eds. F. Steiner, K. Butler and E. Sendich. John Wiley & Sons: Hoboken, New Jersey.

5 Based on definitions from federal organizations and regulatory agencies, CAMPO defines vulnerable populations as groups of people, including but not limited to minority groups based on race, ethnicity, income, national origin, educational level, ability-level, English proficiency level, and age.

This update uses an approach based on CAMPO's planning and decision-making processes and is designed to define elements that lead to effective outreach and participation in a successful public participation plan. The Participation Toolbox, found in the Appendix, should be used to refine select elements of an overall outreach strategy based on the recommendations of each category. As programs and participation techniques continue to grow, the toolbox is intended to be expanded and revised, and is not intended to be an exhaustive list of outreach tools.

# Our Drivers – Federally Mandated Transportation Programs

Public Participation Plans (PPPs) are federally required[6] to guide participation for metropolitan planning organizations, including the region's Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP).

## Regional Transportation Plan (RTP):

This long-range planning document is adopted by the Transportation Policy Board (TPB) and serves as a policy document and guide for regional transportation planning and implementation. Under current federal regulations, the RTP is updated at least every five years. Projects listed in the plan are designed to meet travel needs within the six-county CAMPO region for at least the next 20 years. The RTP is a fiscally constrained, multi-modal planning document that addresses various elements including congestion management, public transportation, roadways, freight, and active transportation modes.

## Transportation Improvement Program (TIP):

The TIP outlines those projects in the CAMPO region that have secured funding sources and have reached project development milestones that allow for project implementation to begin within the four-year window of the TIP. All projects in the TIP must also be included in CAMPO's Regional Transportation Plan as well as be in compliance with the planning area's Congestion Management Process. The TIP must be updated every two years and must contain:

- Roadway, transit, and grouped projects[7]
- Financial Plan
- Project description including type of work, termini, length, etc.

The CAMPO Public Participation Plan strategies regarding TIP adoption may be used for entities' FTA Programs of Projects, including but not limited to FTA Section 5307:

- Capital Metropolitan Transportation Authority (Capital Metro)
- Capital Area Rural Transportation System (CARTS)
- City of Round Rock
- CARTS Urban, San Marcos UZA

These entities may use the strategies outlined in the PPP and partner with CAMPO during community meetings, however, CAMPO's outreach does not satisfy the public involvement required for these entities. Additionally, Capital Metro and CARTS should have multiple meetings that are geographically disbursed throughout their respective service areas.



6 23 CFR Part 450.314

7 Grouped projects are not considered to be of an appropriate scale or scope for individual listing in the TIP as determined by FHWA and TxDOT. These project categories are Preliminary Engineering, Right-of-Way Acquisition, Preventive Maintenance and Rehabilitation, Bridge Replacement and Rehabilitation, Railroad Grade Separations, Safety, Landscaping, Intelligent Transportation System Deployment, Bicycle and Pedestrian, Safety Rest Areas, and Transit Improvements.

## CAMPO Planning Programs

In addition to the federally required planning programs, CAMPO also conducts planning studies and programs throughout the six-county region. These studies inform long-range planning efforts and serve as a regional conversation about the area's growing needs. As part of these planning programs, CAMPO conducts extensive public outreach at key milestones throughout the study to inform the public about the study purpose and goals and to gather feedback on the community's needs and ideas. Examples of such programs that will influence the CAMPO 2045 Plan include:

- Regional Active Transportation Plan
- Regional Arterials Plan and Mokan/Northeast Subregional Plan
- Regional Transit Plan
- Regional Transportation Demand Management Study

## Participation at CAMPO Transportation Policy Board Meetings

The Transportation Policy Board (TPB) is CAMPO's governing body that provides policy guidance and direction for transportation planning and also reviews and approves projects and federal funding as part of the RTP and TIP. TPB meetings are typically held monthly and include an open public comment period, as well as the opportunity for the public to comment on action items on the TPB's agenda. The TPB adopts bylaws which guide their meetings and public participation, and may be referred to for specific guidance on participation. For more information, visit our website on the TPB at: www.campotexas.org/transportation-policy-board/

## Public Information Requests

There are several ways requests for information can be submitted to CAMPO. Requests must be submitted in writing.

- In-person and postal mail: 3300 N. I-35, Suite 630, Austin, Texas, 78705
- Email: campo.openrecords@campotexas.org
- Fax: 737-708-8140

# Public Participation Approach

As a regional transportation governing body, CAMPO coordinates a number of studies and plans which solicit the need for public participation at varying scales. As summarized below, CAMPO uses a community outreach approach based on what is being amended, studied, or adopted. A variety of outreach methods are emphasized to increase public participation opportunities within CAMPO's region while being mindful of the public's limited time and CAMPO's community outreach resources.

**Administrative amendments** could include changes in funding source or non-substantive alterations, and are approved by the CAMPO Executive Director. No explicit participation process is required, and the TPB is notified of administrative amendments at their meetings.

**Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) amendments** are amendments that can include changes to funding amounts or changes in the scope of a project already approved in the RTP or TIP, as well as amendments adding new projects to these planning documents. Projects sponsors are given the opportunity to submit amendments to the RTP and TIP generally twice a year.

**CAMPO studies** are conducted in preparation for adopting a new RTP and are improved with community feedback that is incorporated in various plans that reflect the region's various needs.

**TIP adoption** occurs every two years and requires public input to ensure regional needs and perspectives are considered.

**RTP adoption** occurs every five years and requires an approach that maximizes opportunities for community involvement.


The CAMPO 2045 Transportation Plan is an example of a CAMPO RTP.

CAMPO uses a variety of public involvement strategies intended to maximize engagement opportunities. This plan includes emphasis on seeking opportunities to meet with the public face-to-face, offering in-person and online input opportunities, and using traditional and electronic notification methods to spread the word of important actions. The following table, beginning on the next page, provides a guide of techniques to be used in the various community outreach opportunities.

## Minimum Standards for Participation Methods

| STRATEGIES | | | | |
|---|---|---|---|---|
| | **Getting the Word Out** | **High-Touch** | **High-Tech** | **Communicating Results** |
| **Administrative Amendments** | Following approval, notification in Transportation Policy Board (TPB) meeting materials online | N/A | N/A | N/A |
| **RTP and TIP Amendments & PPP Revisions** | News release (at least one)<br><br>Email notification through online newsletter or regular email to subscribers<br><br>Postal mail notification to subscribers<br><br>Social media post (at least one) of community meetings and online commenting opportunities<br><br>Notice on CAMPO website to include dates, time, and location | At least one community meeting held in the vicinity of the project(s)<br><br>At least one meeting (public hearing) held at TPB meeting, prior to TPB action<br><br>Speakers bureau events as requested, upon staff availability | Online open house and comment opportunity<br><br>Social media post linking to information on website | Summary of comments received provided to TPB 7 days in advance of action |



For more detailed information on Amendments, see page 14.

## Minimum Standards for Participation Methods continued

| | Getting the Word Out | High-Touch | High-Tech | Communicating Results |
|---|---|---|---|---|
| **CAMPO Studies** | News release (at least one)<br><br>Email notification through online newsletter or regular email subscribers<br><br>Postal mail notification to subscribers<br><br>Social media post (at least one) of community meetings and online commenting opportunities<br><br>Notice on CAMPO website to include dates, time, and location | At least one community meeting held in the vicinity of the study<br><br>Speakers bureau events as requested upon staff availability | Visualization of potential improvements resulting from the study<br><br>Online comment opportunity (e.g. email or survey)<br><br>Social media post linking to information on website | Summary of comments received provided to TPB 7 days in advance of action<br><br>Final adopted study document will include a summary of comments<br><br>***If a study or plan is conducted as a partnership with a local government, the local government's governing body (city council/ commissioners court) must adopt the study before CAMPO's TPB concurs with the study or plan.** |



**For more detailed information on CAMPO studies, see page 15.**

## Minimum Standards for Participation Methods continued

| | Getting the Word Out | High-Touch | High-Tech | Communicating Results |
|---|---|---|---|---|
| **TIP Adoption** | News release (at least one)<br><br>Email notification through online newsletter or regular email to subscribers<br><br>Postal mail notification to subscribers<br><br>Social media post (at least one) of community meetings and online commenting opportunities<br><br>Notice on CAMPO website to include dates, time, and location | Community meetings held in each CAMPO county<br><br>Speakers bureau events actively pursued<br><br>Fairs and public venues | Online open house and comment opportunity<br><br>Social media post linking to information on website | Summary of comments received provided to TPB 7 days in advance of action |



For more detailed information on TIP Adoption, see page 16.

## Minimum Standards for Participation Methods continued

| | Getting the Word Out | High-Touch | High-Tech | Communicating Results |
|---|---|---|---|---|
| **RTP Adoption***<br><br>***This is a two phase process with the methods described here to be used in each phase. Public comments from each round are to be posted prior to FINAL TPB action.** | News release (at least one)<br><br>Email notification through online newsletter or regular email to subscribers<br><br>Postal mail notification to subscribers<br><br>Social media post (at least one) of community meetings and online commenting opportunities<br><br>Notice on CAMPO website to include dates, time, and location<br><br>Participate in transportation fairs as available<br><br>Public outreach information posted to CAMPO website. | Community meetings held in each CAMPO county<br><br>Speakers bureau events actively pursued<br><br>Fairs and public venues actively pursued | Online open house and comment opportunity<br><br>Social media post linking to information on website<br><br>Visualization of potential improvements/ projects proposed in RTP as a result of CAMPO studies | Public involvement report with public comments posted to website at least one week prior to TPB action on the **FINAL** RTP. |



**For more detailed information on RTP Adoption, see page 17.**

## Administrative Amendments

Administrative amendments are a means to address those planning procedures that do not require public comment and approval by the Transportation Policy Board. These changes are reflected in documentation, and cannot result in a functional change to the transportation system.

Examples of administrative amendments would include:

- Fixing typographical errors
- Decreasing project funding without changing its scope

## RTP and TIP Amendments

Typically, twice a year, project sponsors are given an opportunity to make changes to their projects in the CAMPO RTP and TIP and to add projects to these planning documents. These amendments are submitted to the CAMPO TPB at the request of project sponsors. Examples of amendments include adding or removing projects and changing funding sources, project descriptions, and/or project limits.

The same process and methods are also required for changes to this PPP that are beyond administrative in nature.



### Meeting Requirements:

Two or more in-person public meetings are required for RTP and TIP amendments, including a public hearing at a Transportation Policy Board meeting. **At least one community meeting** should be provided at a location accessible by the population affected by the proposed change.

- Project sponsors should be notified up to 14 days prior to the planned community meeting. Their participation at in-person community meetings allows attendees to ask project-specific questions and receive immediate feedback.
- In-person meeting locations and times should be accessible to the general public, including those individuals who may not have access to an automobile.
- An online open house must be available on the CAMPO website during the public comment period and include material from the in-person meeting and direct links to submit online comments.
- Translation for non-English speakers, materials for the visually impaired, and services for the deaf and hard of hearing shall be available when requested by those needing them, subject to availability of services. If special services are needed, the services must be requested within five business days advanced notice to CAMPO staff. The availability of these services should be mentioned in the meeting notice.

RTP and TIP amendments may involve multiple jurisdictions, often resulting in a higher level of coordination across multiple stakeholder groups and a higher desire for additional opportunities for public input. Increased efforts to seek input from minority and low-income populations is a priority so community outreach methods tailored to traditionally underserved communities are used during the RTP and TIP amendment process.

**RTP and TIP Amendments Quick Action Option:**

Amendments to the RTP or TIP requiring quick action due to impending federal or state requirements or deadlines (or for other reasons deemed in the community's best interest) may be accomplished by a 75% vote of the Transportation Policy Board members present to waive participation methods outlined in the PPP. In these cases, the Transportation Policy Board will hold a special public hearing within its normal meeting agenda to solicit public comment on the proposed amendment(s). These actions will be included on the meeting agenda posted on the CAMPO website prior to the Transportation Policy Board meeting thus encouraging public attendance and comment on the action prior to adoption by the Policy Board.

## CAMPO Studies

CAMPO conducts regional transportation studies in preparation for RTP planning and adoption, and also partners with CAMPO member jurisdictions on studies in a small geographic area that benefit the member government's community. Combined, these studies offer a comprehensive, multi-modal regional transportation plan and address more locally-focused planning needs.

CAMPO studies may involve multiple jurisdictions, often resulting in a higher level of coordination across multiple stakeholder groups and a higher desire for additional opportunities for public input. Increased efforts to seek input from minority and low-income populations is a priority so community outreach methods tailored to traditionally underserved communities are used for CAMPO studies. Coordination and involvement between CAMPO and necessary local, regional, state, and federal agencies is also included in CAMPO's studies.

### Meeting Requirements:

**At least one in-person public meeting** is required for CAMPO studies, and should be provided at a location accessible by the population affected by the study.

- In-person meeting locations and times should be accessible to the general public, including those individuals who may not have access to an automobile.
- An online open house must be available on the CAMPO website during the public comment period and include material from the in-person meeting and direct links to submit online comments.
- Translation for non-English speakers, materials for the visually impaired, and services for the deaf and hard of hearing shall be available when requested by those needing them, subject to availability of services. If special services are needed, the services must be requested within five business days advanced notice to CAMPO staff. The availability of these services should be mentioned in the meeting notice.
- Requirements for CAMPO partnered studies will be based on community need.

Outreach methods that may be used are included in the Appendix and may include:

- Surveys at Capital Metro and CARTS service centers, transfer hubs, bus stops, and onboard buses, where possible
- Meeting notices and study information, holding small meetings, and conducting surveys at public recreation centers and libraries in minority or low-income communities in the study area
- Posting meeting notices and study information, holding small meetings, and conducting surveys at public recreation centers and libraries in minority or low-income communities in the study area
- Posting meeting notices and study information, holding small meetings, and conducting surveys at community colleges, universities, and other educational institutions

## TIP Adoption

Every two years, a new TIP is adopted for the upcoming four-year project programming cycle. The first two years of the new TIP are carried forward from the previous TIP; the last two years of the new TIP includes new projects. During adoption of the new TIP, projects sponsors have the opportunity to submit amendments to their projects in the TIP, and also submit new projects that qualify for inclusion in the TIP (funding must be identified and the project must begin implementation in the let year indicated on the TIP).

TIP adoption involves multiple jurisdictions, often resulting in a higher level of coordination across multiple stakeholder groups and a higher desire for additional opportunities for public input. Increased efforts to seek input from minority and low-income populations is a priority so community outreach methods tailored to transitionally underserved communities are used during the RTP and TIP amendment process.



### Meeting Requirements:

**In-person public meetings in each of the six CAMPO counties are required** for TIP adoption in addition to a public hearing at a Transportation Policy Board meeting. The public hearing offers an opportunity for the public to give input at a TPB meeting so the TPB may consider and respond to public comment, and potentially make changes to the draft TIP prior to TIP adoption. Project sponsors should be notified up to 14 days prior to the planned community meeting. Their participation at in-person community meetings allows attendees to ask project-specific questions and receive immediate feedback.

- In-person meeting locations and times should be accessible to the general public, including those individuals who may not have access to an automobile.

- An online open house must be available on the CAMPO website during the public comment period and include material from the in-person meeting and direct links to submit online comments.

- Translation for non-English speakers, materials for the visually impaired, and services for the deaf and hard of hearing shall be available when requested by those needing them, subject to availability of services. If special services are needed, the services must be requested within five business days advanced notice to CAMPO staff. The availability of these services should be mentioned in the meeting notice.

## RTP Adoption

Every five years, a new RTP is adopted for the next five-year planning cycle. The RTP is a 20+ year planning document and is considered a "snapshot in time" of long-term projects planned for the CAMPO region. The RTP contains information and projects compiled from CAMPO studies, local jurisdiction studies and plans, as well and projects in the TIP since TIP projects must also be listed in the RTP.

RTP adoption involves multiple jurisdictions and must include a high level of coordination across many stakeholder groups and allow for multiple opportunities for public input. Increased efforts to seek input from all corners of the CAMPO region - rural, urban, and suburban areas, and minority and low-income populations is a priority so variety of community outreach methods are used to reach and gather input from the various communities and stakeholders in the CAMPO region.

Planning for and adoption of the RTP is a longer process than most CAMPO planning documents so two phases of outreach are used. The first phase focuses on introducing the first draft RTP to the community and gathering feedback on the first draft for consideration by the TPB. This first phase is used to gather preliminary feedback on the first RTP draft, and incorporate that feedback into the final draft RTP. The second phase of outreach is to demonstrate how the first round of public input was used in developing the final draft and explain the final draft RTP prior to TPB action. The methods described below are to be used in each phase. Public comments from each round are to be posted prior to final TPB action.



### Community Outreach Plan:

A Community Outreach Plan is used to **detail the various methods to be used**, **stakeholders to target**, and **timeline for the combined phases of outreach** for the RTP adoption. This plan also includes overall project goals and objectives and necessary coordination between CAMPO and necessary local, regional, state, and federal agencies.

### Public Notification for Comments:

**At least one press release must be issued to media sources** throughout the CAMPO region. The medium in which the release is provided should be in a format that best meets the needs of the project. Additionally, **notifications may be expanded to include formalized announcements**, ads or posters placed at highly visible and easily accessible locations throughout the project, **social media posts and ads**, and **earned media stories**. Newsletters may be generated as needed to keep interested public participants abreast of the latest project developments or successes. Additionally, where appropriate, **notification flyers** may be expanded to include more neighborhood-specific locations such as community centers, libraries, senior centers, places of worship, and schools and educational institutions.

## Meetings and Community Events:

**Six or more in-person public meetings, with at least one in each CAMPO county, are required** for RTP adoption, in addition to **including a public hearing at a Transportation Policy Board meeting**. The public hearing applies to only the second round of outreach prior to TPB adoption of the RTP. The public hearing offers an opportunity for the public to give input at a TPB meeting so the TPB may consider and respond to public comment, and potentially make changes to the draft RTP prior to RTP adoption.

- In-person meeting locations and times should be accessible to the general public, including those individuals who may not have access to an automobile.
- An online open house must be available on the CAMPO website during the public comment period(s) and include material from the in-person meeting and direct links to submit online comments.
- Translation for non-English speakers, materials for the visually impaired, and services for the deaf and hard of hearing shall be available when requested by those needing them, subject to availability of services. If special services are needed, the services must be requested within five business days advance notice to CAMPO staff. The availability of these services should be mentioned in the meeting notice.
- Small group community meetings and events are actively pursued to reach people where they are and provide an opportunity to reach those who don't traditionally participate in CAMPO activities.

## Performance Objectives & Monitoring

The following metrics will be recorded by staff on a continuous basis to monitor success of participation strategies. Since the magnitude of participation in transportation issues is driven by both the organization's efforts and the level of public interest, these metrics focus on actions within staff purview.

## Performance Objectives (non-RTP outreach year)

| Metric | Annual Objective |
|---|---|
| Number of community meetings held | 10 |
| Number of electronic newsletters sent | 6 |
| Number of social media updates | 30 |
| Number of surveys developed | 2 |
| Number of media releases distributed | 2 |

## Regional Transportation Plan Adoption Cycle Performance Objectives*

| Metric | Annual Objective |
|---|---|
| Number of community meetings held | 30 |
| Number of electronic newsletters sent | 12 |
| Number of social media updates | 45 |
| Number of surveys developed | 4 |
| Number of media releases distributed | 6 |

*RTP outreach and preparation spans over two calendar years. These objectives are measured over the cycle of the draft RTP being introduced and the RTP being adopted.

In addition, CAMPO reports to Texas Department of Transportation's (TxDOT) Civil Rights Division annually on Title VI activities and planned activities for the following fiscal year to ensure compliance with Title VI regulations. CAMPO also monitors survey responses, website traffic, CAMPO meetings, and social media.

## Revising this Document

This Public Participation Plan is a living document, and should be revised to reflect improvements in participation methods. CAMPO staff welcomes comments by email to comments@campotexas.org, by mail to 3300 N. I-35, Suite 630, Austin, Texas 78705, and by fax to 737-708-8140.

Administrative amendments to the PPP include changes to "Participation Toolbox" strategies, revision of references to applicable regulations, misspellings, omissions, or typographical errors. These updates are performed by staff with no notification required.

Amendments to the PPP include any other changes that do not fit the administrative definition above require 45 days of public comment before adoption. If the document changes significantly due to public comments, an additional 45-day comment period is required.

# Appendix – Participation Toolbox

These outreach strategies are not meant to be finite and instead define those minimum requirements which are considered essential for a successful Public Participation Plan (PPP). Where study needs or local stakeholders/agencies deem appropriate, outreach efforts may be expanded to include additional outreach tactics. The following toolbox provides an array of tools, which may be utilized to further enhance the outreach strategies outlined in the PPP. The provided list is not exhaustive, and is intended to be updated.

## Identifying Demographics of Study Area

Refine and select public participation tools that are appropriate for the identified population within the designated study area.

Demographics such as income and English proficiency of the area potentially affected by a study or project are important to understand regarding participation. Limited English proficiency populations may need translation or other services and low-income communities may need additional community meeting access provisions or other assistance.

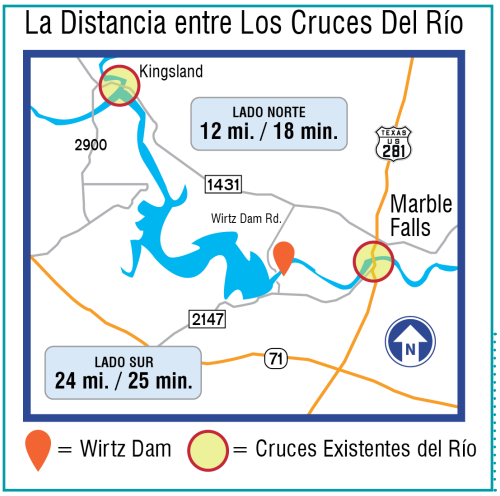
CAMPO's existing environmental justice analyses may be useful in identifying these communities, or specialized analysis of geographic information may be appropriate.

## Visualization Techniques

Encourage universal communication tactics to help to simplify concepts and transcend language, economic, and educational barriers.

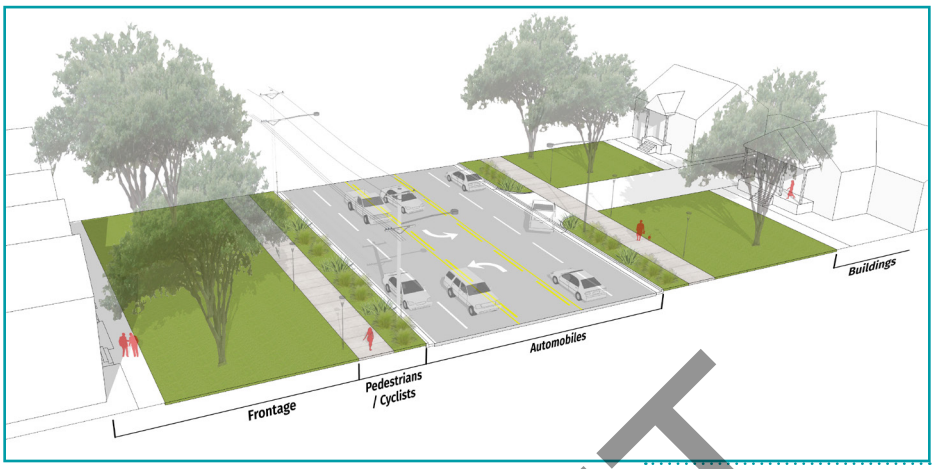
CAMPO strives to provide information regarding transportation-related issues in a manner which is easy to interpret. Visualization tools allow for the display of complex ideas via graphics with limited to no text. Examples include:

Photo Simulation: To enhance community understanding of proposed project designs, photographs of existing conditions will be integrated with 3-D design files depicting an alternate desired outcome. Examples include the addition of planted medians, left-hand turn lanes, rapid transit bus lanes, etc.




Using maps with legends in Spanish helps the Spanish population to understand CAMPO study areas, plans, and goals.

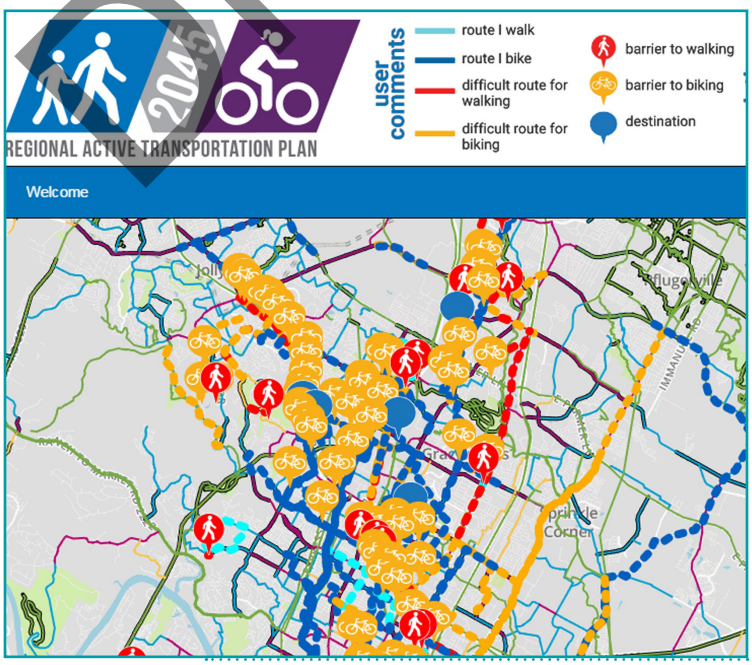
Illustrations: Where data is not yet available, hand drawn or rendered illustrations may be used to show future design concepts. Examples include an illustration of Williams Drive in Georgetown to represent potential multimodal redevelopment.




Williams Drive illustration.

Mapping: Allows for the spatial depiction of where projects are to be implemented and how it relates to the surrounding region. If warranted, GIS technology can be merged with visualization tools to demonstrate the final look of a proposed treatment.

Online interactive mapping tools such as a WikiMap can be used to gathered input from community members on their needs and challenges for various transportation modes and provide information about their preferred routes.




2045 Regional Active Transportation Plan Wikimap.

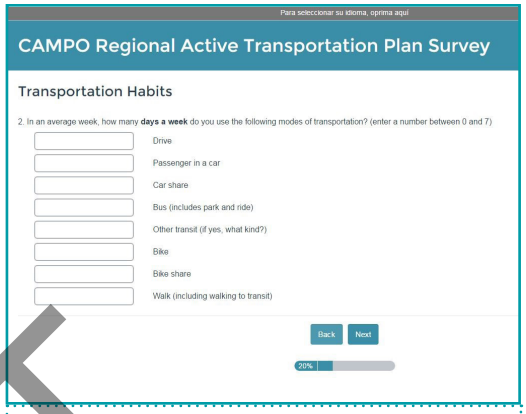
## Website

All planning documents as well as meeting information should be made accessible via the CAMPO website. Providing information regarding planning activities on the CAMPO website is imperative for informing as many people in the region as possible. The website should provide a variety of methods to communicate information to and from the public.

Online Open House: An online open house contains all information that is available at regular public meetings in an easy-to-access format on the CAMPO website so that interested persons who cannot attend a meeting can still have access to information and can easily submit comments.

Online Surveys: Surveys allow people to provide quantitative and qualitative data to be used in developing plans and studies.

Wikimap: This online tool provides people with the opportunity to select certain points of interest on a map and leave comments on the current conditions and/or need for improvement in a particular area. Data collected from Wikimaps can be analyzed in GIS and can be helpful for developing plans and studies.



Online surveys allow for digital submission of comments and ideas.

Facebook Live: Streaming Transportation Policy Board and public meetings via Facebook Live provides an additional avenue for people who cannot attend a meeting to participate in the planning process and have access to the information being provided at the meeting.

Webinars: Webinars may be made available to give people the chance to view a presentation regarding a plan or study and ask questions directly to CAMPO staff.

## Surveys

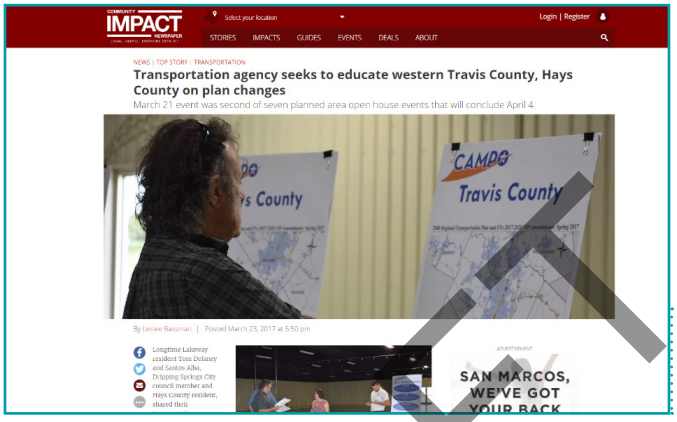
Bus Rides and Surveys: To ensure the needs-based nature of CAMPO's planning efforts, it is vital to receive input from those who do not have a car, share a car, or use various modes of transportation. CAMPO has teamed up with Capital Metro, to conduct surveys on their buses and at transit stations. The bus routes used should represent various demographics to include commuter lines from suburban areas and routes in environmental justice areas, and should be ridden at various times during the day to gather input from a variety of transit users.

Community Surveys: To reach those who don't typically participate in transportation planning meetings and opportunities, CAMPO has sought out festivals and community gathering places to reach a broader audience. CAMPO has attended community events and visited libraries, public transit facilities, community and senior centers, universities, town squares, and bike shops throughout the region where the project team administered paper and iPad surveys, both in English and Spanish.

## Media

Radio/Television: Where warranted, project kickoff events should be announced with a press release to the local media. When televised, links to recordings may be provided on the CAMPO website.

Print Media: All print media publications should make efforts to accommodate environmental justice populations where needed. When advertisements are submitted, staff should keep a record of the entity which was responsible for its publication, the date in which it was published, and the population in which it was intended to serve to assist with future outreach efforts.




Print media is an easy way to disseminate information quickly to the public.

Social Media: Updates, dissemination of information, survey distribution, and discussion topics may be employed by CAMPO and project sponsor staff through their social media channels. This can also be accomplished by working with local agencies and advocacy groups to carry messages or links to the CAMPO website through their established social media network, thereby increasing the broadcasting abilities of CAMPO in reaching interested stakeholders. Where demographics warrant, staff should make every effort to advertise project updates and notifications on Spanish-oriented social media. Planners should remain engaged with developments in social media, as specific websites may change in their usefulness to the public over time.

Facebook ads may be used to reach different demographics than those that have already liked the CAMPO Facebook page. The Facebook audience used for ads can include various cities in the CAMPO region, interests in topics such as transportation, transit, cycling, online shopping, outdoor activities, and can be done in both Spanish and English.



Social Media platforms serve as a one-stop shop for CAMPO information online.

## Electronic Communication and Contact List

An electronic notification list will include transit providers within the area, affected local and state agencies, and freight transportation providers who have requested to be on the mailing list and any private citizen or agency who request notification. Requests to be added to CAMPO's mailing list may also be made by telephone, e-mail, fax, or in person by visiting the CAMPO office if desired. All organizations/ individuals will remain on the mailing list until they request to be removed or are known by CAMPO not to desire further inclusion. Maintaining the contact database is essential for delivering information regarding planning activities on a mass scale. The CAMPO newsletter is intended to provide summary updates on the types of activities taking place at all levels of transportation planning as well as provide meeting notices and information. Program or project types may be updated in the quarterly or annual newsletter as needed.

At a minimum, the following information is recommended from interested parties subscribing to the electronic database:

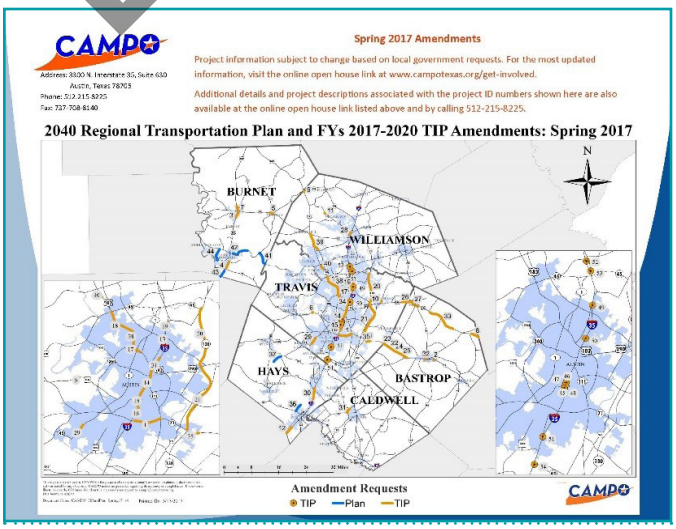
Email: Email notifications are intended to serve as the primary form of project and program updates. Where email is not available, participants may elect to have mail sent directly to residential addresses.

Zip Code: Zip code information is provided for local or project specific programs which do not require mass, regional distribution of project updates. Zip code information is used primarily to solicit public participation for local or corridor specific project based on citizen defined areas of interest.


Signing up for the CAMPO newsletter provides citizens the opportunity to get information directly into their email inbox.

## Brochures and Maps

Brochures and maps act as quick reference documents that summarize the purpose of an associated program and related goals and objectives. Text should be minimal and where possible, graphics or rendering should be used. Project websites and appropriate staff contact information should also be provided.




This map outlines amendments visually.

## Community Meetings and Open Houses

CAMPO staff will conduct open houses and/or community meetings as part of the planning processes for the RTP, adoption of the RTP and TIP, and other major funding and project definition opportunities. These sessions will provide opportunities for the exchange of information between citizens and staff. Staff also works with CAMPO's Transportation Policy Board members to identify active community leaders throughout the CAMPO area and contact these leaders to learn how to better reach various groups and demographics.

The Tactile Town kit was used during meetings at the Texas School for the Blind and Visually Impaired.

Tactile Town and Other ADA formats: The CAMPO region is home to the state school for students with visual impairments. CAMPO has partnered with the Texas School for the Blind and Visually Impaired (TSBVI) to ensure visually impaired students and adults from a near-by workforce center have an opportunity to provide input on CAMPO's planning work. CAMPO has conducted open houses at TSBVI with all material in large print and braille format and surveys administered verbally, when needed. Another tool, Tactile Town, has been used to create a tactile model of a town with good and bad active transportation facilities.

Day Time and Weekend Events: CAMPO partners with local resources to get the word out and engage people by going to them at different times during the day and week. This includes holding mid-day open houses where light lunch is served, setting up booths at community events, and surveying transit riders at early morning transit stops and on buses during the day. CAMPO has also conducted outreach at Friday night high school football games.

University Outreach: The CAMPO region is home to multiple universities, including one of the largest in the US, and a robust community college network. To gather feedback from college students, CAMPO partners with the colleges to host "mini-meetings" on campuses and with information tailored to students.


Display booths act as quick places for the public to receive information during larger events or activities.

Display Booths: Display booths provide a quick snap shot of a program type using project boards, posters and other visualization graphics. Project booths are mobile and may be set up throughout the project area. Brochures, newsletters, comment cards, and other informational packets may be provided in conjunction with display booths. Display booths may be used in combination with other meetings or where high pedestrian traffic is expected. Given their ease of access, display booths offer a great opportunity to receive informal feedback on project ideas, progress, or implementation tactics which will be recorded and summarized.

## Informational Outreach and Speakers Bureau

CAMPO staff is available to present programs and/or provide materials at the request of civic or community groups. Requests for presentations should be made as soon as possible to ensure CAMPO staff are available. CAMPO also offers a speakers bureau program to allow groups to request a speaker on a number of topics. The speaker is most often a member of CAMPO staff, but others may be sought if needed. Following are a list of topics commonly requested, but other issues can also be arranged:

- CAMPO Primer
- CAMPO Studies
- CAMPO Planning Documents
- Public Involvement in Transportation Planning

## Advisory and Stakeholder Committees

Stakeholder committees are created to give a voice to members of the community in the planning process, particularly those in the environmental justice, underserved, and disabled populations. Stakeholder committees are kept well-informed of the phases of the planning process and are encouraged to share that information with people in their communities. Stakeholder committees are essential for spreading awareness and knowledge of planning efforts to a great number of people in their spheres of influence and ensuring a variety of needs are represented in CAMPO's planning programs.

The TAC may serve as an advisory committee for the completion of transportation studies, plans, and development and programming recommendations required under state or federal laws pertaining to all surface modes of transportation and transportation support facilities. The TAC also serves as a forum and working group for regional project coordination across jurisdictional boundaries. Where warranted, projects may elect to request an ad hoc or smaller subset of committee member be used for preliminary review of certain documents before final review by the TPB.




Stakeholder meetings can provide nuanced insight in preliminary stages– and through-out– the planning process.

CAMPO

CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

CENTRAL TEXAS



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Capital Area Metropolitan Planning Organization

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Capital Area Metropolitan Planning Organization

@CampoTexas

Capital Area MPO

| 2015 PPP | 2018 DRAFT PPP |
|---|---|
| **SECTION: Introduction** | |
| | Add information on all CAMPO counties and on TPB |
| **SECTION: LEP/EJ** | |
| | Broadened underserved population examples |
| **SECTION: Participation Objective and Strategies** | |
| Old Objective:<br>"Provide citizens with reasonable opportunities to be involved in the metropolitan planning process." | New Objective:<br>"Provide a forum that empowers all stakeholders and demographics with equitable access to participate and provide input in the transportation planning and decision-making process." |
| | Added FAST Act compliant language about collaboration with a variety of interests |
| Strategies section:<br>Notify and provide access to information about transportation issues and processes in a timely fashion, using various electronically accessible formats.<br><br>Use visualizations techniques such as mapping to describe proposed changes.<br><br>Hold public meetings at convenient times and locations.<br><br>Seek out low-income and minority "environmental justice " households who may face challenges accessing employment and other services. | Strategies section:<br>Notify and provide access to information about transportation issues and processes in a timely fashion, using various print and electronically accessible formats.<br><br>Use visualizations and clear, concise, non-technical language to describe proposed changes.<br><br>Hold public open houses at convenient times and locations.<br><br>Seek out low-income and minority environmental justice households and vulnerable populations, who may face challenges accessing employment and other services.<br><br>Footnoted definition of vulnerable populations:<br>"Based on definitions from federal organizations and regulatory agencies, CAMPO defines vulnerable populations as groups of people, including but not limited to minority groups based on race, ethnicity, income, national origin, educational level, ability-level, English proficiency level, and age." |
| | Removed reference to Tiered system |
| **SECTION: Our Drivers** | |
| 23 CFR Part 450.314 Project groupings currently in the TIP include preliminary engineering, preventative maintenance and rehabilitation, bridge replacement and rehabilitation, railroad grade separations, safety, landscaping intelligent transportation system deployment, and bicycle and pedestrian projects. | Added footnote to clarify what is part of Grouped Projects category:<br>"Grouped projects are not considered to be of an appropriate scale or scope for individual listing in the TIP as determined by FHWA and TxDOT. These project categories are Preliminary Engineering, Right-of-Way Acquisition, Preventive Maintenance and Rehabilitation, Bridge Replacement and Rehabilitation, Railroad Grade Separations, Safety, Landscaping, Intelligent |

| | |
|---|---|
| | Transportation System Deployment, Bicycle and Pedestrian, Safety Rest Areas, and Transit Improvements." |
| | Added paragraph clarifying outreach requirements for FTA entities:<br>"These entities may use the strategies outlined in the PPP and partner with CAMPO during community meetings, however, CAMPO's outreach does not satisfy the public involvement required for these entities. Additionally, Capital Metro and CARTS should have multiple meetings that are geographically disbursed throughout their respective service areas." |
| **SECTION: CAMPO Planning Programs*** | |
| | Added information about CAMPO Planning Programs |
| | Added that TPB meeting include public comment period |
| | Added information on how to submit Public Information Requests |
| **SECTION: Public Participation Approach*** | |
| | Removed references to Tiered system |
| | Added information describing CAMPO Studies |
| | RTP/TIP Amendments and PPP Revisions:<br>• Added social media posts and CAMPO website event listings to "Getting the Word Out"<br>• Added online open house and commenting and social media post to CAMPO website to "High Tech" |
| | Added CAMPO Studies section describing outreach requirements |
| | TIP Adoption:<br>• Added social media posts and CAMPO website event listings to "Getting the Word Out"<br>• Added online open house and commenting and social media post to CAMPO website to "High Tech" |
| | RTP Adoption:<br>• Added that outreach requirements, excluding public involvement report, are to be done as a two-phase process for both Draft RTP and Final Draft RTP<br>• Added social media posts and CAMPO website event listings to "Getting the Word Out"<br>• Added online open house and commenting and social media post to CAMPO website to "High Tech" |

| | |
|---|---|
| | Added language more thoroughly describing Administrative Amendments, RTP and TIP Amendments, CAMPO Studies, TIP adoption, and RTP adoption and the outreach requirements for each |
| Performance objectives:<br># of social media updates – 100<br><br>RTP Cycle:<br># of community meetings held – 15<br># of social media updates – 150<br># of surveys developed – 3<br># of media releases distributed – 3 | Updated performance objectives:<br># of social media updates – 30<br><br>RTP Cycle:<br># of community meetings held – 30<br># of social media updates – 45<br># of surveys developed – 4<br># of media releases distributed – 6 |
| | Added clarification that RTP outreach spans two calendar years and objectives are for total RTP cycle. |
| | Added CAMPO's yearly reporting to TxDOT's Civil Rights Division. |
| **SECTION: Appendix—Participation Toolbox*** | |
| | Appendix – added multiple CAMPO outreach practices to highlight more recent, updated outreach tools. |

*These sections are newly added or significantly altered in the 2018 PPP.

**Transportation Policy Board**
**2019 Meeting Schedule**

All meetings will be held in Room 3.102 of the Joe C. Thompson Center, University of Texas Campus, Red River and Dean Keeton Streets and will begin promptly at 6:00 p.m.

January 14, 2019

February 11, 2019

March 4, 2019

April 8, 2019

May 6, 2019

June 10, 2019

July 8, 2019

August 12, 2019

September 9, 2019

October 7, 2019

November 4, 2019

December 9, 2019

| | |
|---|---|
| **Date:** | October 15, 2018 |
| **Continued From:** | N/A |
| **Action Requested:** | Information |

| | |
|---|---|
| **To:** | Transportation Policy Board |
| **From:** | Mr. Ryan Collins, Short Range Planning Manager |
| **Agenda Item:** | 10b |
| **Subject:** | FY 2018 Federal Transit Administration (FTA) Section 5310 Project Call |

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| | |
|---|---|
| **Date:** | October 15, 2018 |
| **Continued From:** | N/A |
| **Action Requested:** | Information |

| | |
|---|---|
| **To:** | Transportation Policy Board |
| **From:** | Mr. Ashby Johnson, Executive Director |
| **Agenda Item:** | 10c |
| **Subject:** | Capital-Alamo Connection Study Joint MPO TAC Workshop |

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## Background

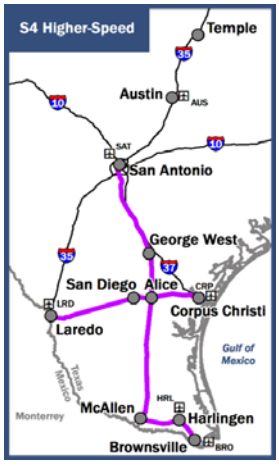
In late 2017, the Federal Railroad Administration published the Record of Decision (ROD) and Tier 1 Texas-Oklahoma Passenger Rail Service (TOPRS) Final Environmental Impact Statement (EIS). While this document did evaluate conventional, higher-speed, and high-speed passenger train alignments, the document focused on service and operations and broadly addressed corridor issues and alternatives. The document did not consider emerging modes or technologies. Prior to building high-speed passenger service, Tier 2 [project-level National Environmental Policy Act (NEPA)] evaluations are needed to analyze site-specific projects.

The Tier 1 alternatives were developed to a level of detail appropriate for a service-level analysis and need to be refined to optimize performance, reduce cost, and/or avoid specific properties or individual environmental resources. The TOPRS ROD and Final EIS recommended the following alternatives be evaluated further in future (Tier 2) NEPA document(s):

- Alternative N4A Conventional Rail service (N4A CONV) from Oklahoma City to Fort Worth with service extending to Dallas.
- Alternative C4A High-Speed Rail service (C4A HSR) from Dallas-Fort Worth to San Antonio. Service would operate between Fort Worth and Dallas with a stop at Dallas/Fort Worth International Airport and extend south from Dallas to San Antonio.
- Alternative C4B High-Speed Rail service (C4B HSR) from Dallas and Fort Worth to San Antonio. Service would operate between Fort Worth to Dallas with a stop in Arlington, then continuing south from Arlington to San Antonio.
- Alternative C4C High-Speed Rail service (C4C HSR) from Dallas and Fort Worth to San Antonio. Service on this route would operate in a clockwise direction, running from Hillsboro to Fort Worth, east to Dallas, with a stop at Dallas/Fort Worth International Airport, back to Hillsboro, and south to San Antonio.
- Alternative S4 Higher-Speed Rail service (S4 HrSR) from San Antonio to Brownsville with an east-west leg from Laredo to Corpus Christi intersecting the north-south service in Alice.
- Alternative S6 Higher-Speed Rail service (S6 HrSR) and Alternative S6 High-Speed Rail service (S6 HSR) from San Antonio to Laredo, extending to Monterrey, Mexico. These alternatives were selected only if the Monterrey, Mexico, connection is built.








## High-Speed Transportation Study Purpose

To help expedite future Tier 2 project-level NEPA document(s), this study will conduct a high-speed transportation study for passenger service from Fort Worth/Waco/Temple-Killeen/Austin/San Antonio/Laredo. The purpose of this study is to prepare a set of alternative recommendations to be evaluated in a Tier 2 NEPA document(s). This study will review previous studied alignments, evaluate technology options (e.g., conventional high-speed rail, next generation magnetic levitation), and identify potential station locations. The recommendations from TOPRS ROD and EIS would serve as the basis for the study.

## Participants

The six Metropolitan Planning Organizations (MPOs) along the potential alignments would partner to fund and oversee the study. These include:

- North Central Texas Council of Governments (NCTCOG)
- Waco MPO
- Killeen-Temple MPO (KTMPO)
- Capital Area MPO (CAMPO)
- Alamo Area MPO (AAMPO)
- Laredo MPO

## Proposed Connectivity Study Cost and Procurement

It is estimated this high-speed transportation study would cost $500,000. NCTCOG is proposed to lead in the procurement of a consultant to conduct the study, including the development of the Request for Proposals (RFP). Representatives from the participating MPOs would review the scope of work prior to the RFP release, serve on the selection committee for the procurement, and serve on the study review committee.

## Proposed Connectivity Study Outline

It is anticipated this high-speed transportation study would include six major tasks and take approximately nine to 12 months to complete. The following lists these tasks and who would be responsible for the work.

| Major Tasks | Primary Responsibility |
|---|---|
| Task 1 – Project Management | NCTCOG and Consultant |
| Task 2 – Review and document emerging technology options (e.g., next generation magnetic levitation) and design criteria | Consultant |
| Task 3 – Review of TOPRS ROD and Final EIS and Draft EIS comments | Consultant |
| Task 4 – Alternative development and screening of potential technology and modes (e.g., cost, operation, maintenance), the need to revise TOPRS alignment(s) to facilitate other technologies, and potential station locations | Respective MPOs and Consultant |
| Task 5 – Stakeholder involvement | Respective MPOs |
| Task 6 – Document study findings, recommendations, and next steps | Consultant |

## Study Purpose

To help expedite future Tier 2 project-level National Environmental Policy Act (NEPA) document(s), this project will conduct a high-speed transportation study for passenger service from Fort Worth/Waco/Temple-Killeen/Austin/San Antonio/Laredo. The purpose of this study is to prepare a set of alternative recommendations to be evaluated in a Tier 2 NEPA document(s). This study will review previous studied alignments, evaluate technology options (e.g., conventional high-speed rail, next generation magnetic levitation), and identify potential station locations. The recommendations from the Tier 1 Texas-Oklahoma Passenger Rail Service (TOPRS) Record of Decision (ROD) and Final Environmental Impact Statement (EIS) would serve as the basis for the study.

## Background

In late 2017, the Federal Railroad Administration (FRA) published the ROD and Tier 1 TOPRS Final EIS. While this document did evaluate conventional, higher speed, and high-speed passenger train alignments, the document focused on service and operations and broadly addressed corridor issues and alternatives. The document did not consider other modes or technologies. Prior to building high speed passenger service, Tier 2 project-level NEPA evaluations are needed to analyze site-specific projects.

The Tier 1 alternatives were developed to a level of detail appropriate for a service-level analysis and need to be refined to optimize performance, reduce cost, and/or avoid specific properties or individual environmental resources. The TOPRS ROD and Final EIS recommended the six alternatives be evaluated further in future (Tier 2) NEPA document(s):

- Alternative N4A Conventional Rail service (N4A CONV) from Oklahoma City to Fort Worth with service extending to Dallas.
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- Alternative S6 Higher-Speed Rail service (S6 HrSR) and Alternative S6 High-Speed Rail service (S6 HSR) from San Antonio to Laredo, extending to Monterrey, Mexico. This alternative was selected only if the Monterrey, Mexico, connection is built.

## Description of Work

Task 1 – Project Management

This high-speed transportation study is being jointly funded by the six Metropolitan Planning Organizations (MPOs) along the potential alignments, including: North Central Texas Council of Governments (NCTCOG), Waco MPO, Killeen-Temple MPO (KTMPO), Capital Area MPO (CAMPO), Alamo Area MPO (AAMPO), and Laredo MPO. NCTCOG will serve as the administrator of the study.

1.1 Work Plan and Schedule

The Consultant Engineer will prepare a work plan and schedule that will describe, in detail, the activities, steps, and responsibilities necessary to complete this study within the contract timeframe. This work plan and schedule will be reviewed on a monthly basis and revised, as needed, throughout the study.

1.2 Kick-Off and Coordination Meetings

The Consultant will conduct one project kick-off meeting with the participating MPOs to review the project scope, schedule, deliverables, and project objectives. Throughout the study, the Consultant will conduct coordination meetings with the participating MPOs by webinar/phone (up to six).

1.3 Invoicing

The Consultant will submit monthly billing and progress reports (up to 12) to NCTCOG in the required format. Progress reports should include work accomplished and status for each project task; estimated percentage of work completed and budget spent; work activities anticipated for following month; and existing or anticipated problems that may affect the budget, schedule or work products of the study.

1.4 Release of Study Materials

Data and deliverables for this study will be shared through e-mail or electronic file transfer as needed. No member of the Consultant team shall release study materials or deliverables to any agency, organization, or person without prior written consent of the NCTCOG Project Manager.

*Electronic Deliverables*:

- Work plan and schedule
- Project kick-off meeting summary
- Coordination meeting summaries
- Monthly invoices and progress reports

*Hardcopy Deliverables:*

- Agendas, handouts, and other materials for project kick-off

Task 2 – Review Technology and Design Criteria

The Consultant will review potential fixed guideway technology options and associated design criterion (e.g., horizontal curvature and clearances, vertical grades and clearances, right-of-way requirements, required operating equipment and requirements) and recommended station spacing. At a minimum, conventional, higher speed, and high-speed passenger rail; magnetic levitation; and next generation magnetic levitation should be considered. The Consultant will prepare typical sections and assess the feasibility and order of magnitude costs (e.g., construction, operating and maintenance) of each technology option.

*Electronic Deliverables:*

- Technical memorandum summarizing task effort and findings

Task 3 – Review of Previous Studies and Comments

The Consultant will review the recommendations, alternative analyses, and public comments received during TOPRS and the Fort Worth High-Speed Rail Planning Study. Additionally, the Consultant will applicable national, state, and regional transportation plans to identify additional alignments, technology, and station opportunities that should be evaluated in Task 4.

*Electronic Deliverables:*

- Technical memorandum summarizing task effort and findings

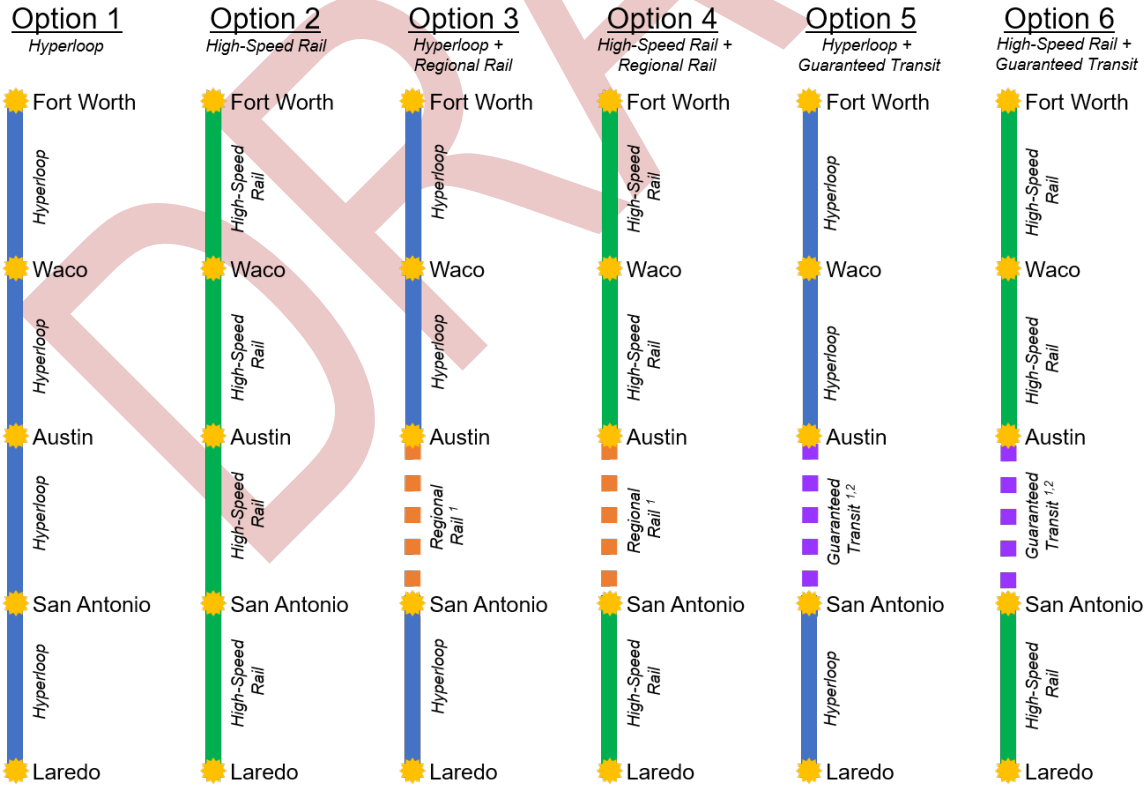
Task 4 – Alternative Development

Based on previous studies and stakeholder comments, the Consultant will develop and screen alternatives for consideration.

4.1 Technology and Modes

The consultant will evaluate the appropriateness and benefits of various technologies. Because of the length of corridor, the Consultant will consider the possibility of a combination of technologies and modes in the various segments (e.g., Fort Worth to Austin, Austin to San Antonio, San Antonio to Laredo). At a minimum, between Austin and San Antonio, regional rail or guaranteed transit using the dynamically priced (tolled) managed lanes on IH 35 will be considered. The following graphic shows possible options.

**Brainstorming "High-Speed Rail" Examples**




**Notes:**
1. Regional rail and guaranteed transit would have more frequent stops
2. Guaranteed transit would be dedicated next generation transit vehicles operating on the dynamically priced (tolled) managed lanes on IH 35

4.2 Alignments

The Consultant will refine TOPRS alignment recommendations based on comments from MPOs and stakeholder, technology requirements, and/or modes. The Consultant will document any revisions and the specific reasons for such revisions.

4.3 Station Locations

Based on the alignments developed in Task 4.2, the Consultant will identify potential station locations along the corridor.

4.4 Alternative Screening

The Consultant will develop a set of relevant screening criteria and factors to compare various technologies, alignments, and station locations. Using order of magnitude costs, the Consultant will develop an opinion of probable construction cost for each conceptual alternative. Based on this screening and stakeholder input, the Consultant will recommend alignments, station locations and technologies to be considered in the NEPA document(s).

*Electronic Deliverables:*

- Technical memorandum and mapping/graphics summarizing findings and recommendations to be incorporated into the final report.
- An opinion of probable construction cost for each conceptual alternative.

Task 5 – Stakeholder Involvement

This task will include support for stakeholder meetings. Stakeholders would include elected officials, city and county staff, and local transportation officials. The purpose of these meetings is to engage stakeholders in the discussion of community visions and ideas for high-speed passenger service as well as receive comments on draft recommendations.

Each respective MPO will be responsible for coordinating and reserving the meeting locations, sending out meeting notices, and conducting the meetings. The Consultant will support this effort by helping identify stakeholders; engaging stakeholders in the discussions; developing meeting notices, sign-in sheets, handouts, and presentation materials; and making technical presentations. It is estimated that two series of stakeholder meetings will be held for a total of 10 meetings. The first series of meetings will solicit input on community visions, technology, alignments, and station opportunities. The second series of meetings will review findings and draft recommendations.

*Electronic Deliverables*:

- Handouts and presentations for two series of stakeholder meetings
- Meeting summaries for each meeting documenting attendees, information presented, items discussed, comments/questions, and resulting action items.

Task 6 – Final Report

The Consultant will prepare a final report summarizing the efforts of this study. The report will incorporate the deliverables from Tasks 1 through 5. The report will include recommended alignments, technologies, and potential station locations to include in future Tier 2 NEPA document(s), unresolved issues along with next steps. For alignments, technologies, and potential station locations not recommended, the report should clearly state the reasons for such.

*Electronic Deliverables:*

- Final report in Word and pdf formats