Agenda - Final revised
Capital Metropolitan Transportation Authority
Board of Directors

Monday, June 26, 2023  12:00 PM  Rosa Parks Boardroom

Any items marked with * have been revised.

This meeting will be livestreamed at capmetrotx.legistar.com

I. Call to Order

II. Public Comment:

III. Advisory Committee Updates:

1. Customer Satisfaction Advisory Committee (CSAC)
2. Access Advisory Committee

IV. Board Committee Updates:

1. Finance, Audit and Administration Committee
2. CAMPO update
3. Austin Transit Partnership Update

V. Action Items:

1. Approval of minutes from the May 22, 2023 board meeting.

*2. Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute a Purchase and Sale Agreement for the purchase of a 5.846-acre tract of land located at 3100 East 5th Street and 618 Tillery Street, Austin, TX 78702, together with the 182,716-square-foot office building and all other improvements thereon, and any easements and rights appurtenant thereto, from 618 Tillery St. (Austin) Owner, LLC, for new CapMetro administrative offices, in an amount not to exceed $87,250,000 plus closing costs, as well as the payment of a broker fee to CBRE, Inc. in an amount not to exceed $654,375.

3. Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute an Interlocal Agreement (ILA) with the City of Georgetown for a Transit Development Plan (TDP) in an amount not to exceed $160,000 in FY23 FTA Section 5307 Funds and $40,000 in local funds from the City of Georgetown.
4. Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute a contract with Jay-Reese Contractors, Inc., for the construction and replacement of two (2) bridge spans at Milepost (MP) 52.44 in the East subdivision for a contract term of Three Hundred Sixty-Five (365) calendar days from Notice to Proceed in the amount of $3,981,000, plus 20% contingency, for a grand total not-to-exceed amount of $4,777,200.

5. Approval of a resolution adopting an updated set of Capital Metro Service Standards and Guidelines.

VI. Discussion Items:

1. Sustainability Program Update

VII. Report:

1. President & CEO Monthly Update

VIII. Memos:

Note: Memos are for information only. Will not be discussed at meeting.

1. Memo: Capital Projects Portfolio, April Year-to-Date (June 20, 2023)

2. Memo: May Board Follow-up (June 26, 2023)

IX. Items for Future Discussion:

X. Adjournment

ADA Compliance

Reasonable modifications and equal access to communications are provided upon request. Please call (512) 369-6040 or email ed.easton@capmetro.org if you need more information.

BOARD OF DIRECTORS: Jeffrey Travillion, Chair; Leslie Pool, Vice Chair; Becki Ross, Secretary; Eric Stratton, Paige Ellis, Matt Harriss, Dianne Bangle and Chito Vela.

The Board of Directors may go into closed session under the Texas Open Meetings Act. In accordance with Texas Government Code, Section 551.071, consultation with attorney for any legal issues, under Section 551.072 for real property issues; under Section 551.074 for personnel matters, or under Section 551.076, for deliberation regarding the deployment or implementation of security personnel or devices; arising regarding any item listed on this agenda.
Board of Directors

Item #: AI-2021-189  

Agenda Date: 3/28/2022

Customer Satisfaction Advisory Committee (CSAC)
Meeting called to order at 6:05 PM

Welcome / Introductions / Call to Order

Vice-Chair Foster

Public Communications

Ryan Johnson mentions a consistent unreliability of the Red Line train around the Crestview station, specifically the 8:13 Southbound train.

Betsy Greenberg mentions that she’s heard people asking for Night Owl service to Rainey Street. Emma Martinez says that Night Owl service isn’t changing currently, but they’re aware of the need for transit in the area and are looking at many ways to address it.

Initial FY2024 Budget Review

Emmanuel Toutin, Manager of Budget and Financial Planning

Emmanuel Toutin overviews the initial budget for FY2024, including investments in a Demand Response operations and maintenance facility, electric bus purchases, and bus stop enhancements.

Betsy Greenberg asks why the revenue from fares isn't forecasted. Emmanuel Toutin explains that they’re still forecasting the expected ridership, which affects the expected fare revenue. Kevin Conlan adds that most of CapMetro’s revenue comes from sales tax.

Conversation is had over CapMetro’s fares and the revenue that comes from them.

David Foster asks if there’s any reserve funds. Kevin Conlan explains that CapMetro has a sustainability reserve that’s board mandated for the cost of operation for one month, a statutory reserve for the cost of operations for two months, and a sixty-million-dollar facility master plan reserve.

David Foster asks if the City of Austin will contribute funds towards Project Connect projects. Kevin Conlan says that it’s unlikely, but that they’re contributing to the anti-displacement projects that are a part of Project Connect and will likely contribute in-kind in the coming years.

David Foster asks if CapMetro’s monetary contribution, as well as the City of Austin’s in-kind contributions, will count towards an FTA match. Kevin Conlan says that it’s undetermined, and that some fine details are not yet decided.

Service Standards and Guidelines

Emma Martinez, Transportation Planner I
Emma Martinez outlines the Service Standards and Guidelines update, including key changes, engagement done to date, and next steps.

August Service Changes
*Emma Martinez, Transportation Planner I*

Emma Martinez outlines the June and August service changes.

Fangda Lu asks if transfer times are taken into account when making minor changes to service. Emma Martinez explains that CapMetro’s scheduling team keeps an eye on that.

David Foster asks about the loss of connection to St. David’s Medical Center in Round Rock through CapMetro routes. Emma Martinez says that she’ll follow up with more information, as CapMetro coordinates with Round Rock city staff to plan services in Round Rock.

Advisory Committee Updates
*Peter Breton, Community Engagement Coordinator*

Peter Breton outlines the work CapMetro staff will take to support the advisory committees and formalize procedures within the committees during the July recess. That includes public communications, time-keeping, and other systems.

Betsy Greenberg shares that she misses in-person meetings.

CapMetro staff and committee members discuss potential times and locations for future in-person meetings.

Approval of the April minutes - Motion to approve by Betsy Greenberg / 2nd by David Shapiro. Passes unanimously.

Approval of the May minutes - Motion to approve by Fangda Lu / 2nd by David Foster. Passes unanimously.

Meeting adjourned at 6:53 PM
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<td>Access Advisory Committee</td>
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Meeting called to order at 5:31 PM

Welcome / Introductions / Call to Order
Chair Hunt

Public Communications

Audrea Diaz outlines inappropriate incidents regarding harassment she has experienced while using MetroAccess, specifically by operators, and asks for CapMetro action plans for the incidents, as well as other issues she’s reported on regarding instances where she believes that operators were not adhering to a high standard of conduct.

Celia Israel explains that Audrea Diaz reached out to her, and that she is excited to see CapMetro address the issue in depth.

Estrella Barrera asks if there’s been action taken to address the issues from operators that’s been reported by Audrea Diaz. Dottie Watkins responds that CapMetro is taking multiple steps to address the issues that were reported.

Chad Ballentine adds that CapMetro staff is creating a plan to reach out to all the staff within the MetroAccess department to have in-depth conversations and training to help address and prevent any issues. They are looking for consultants to bring into train operators.

Paul Hunt asks if there’s a way to prevent drivers being assigned to certain riders. Chad Ballentine says there’s not an immediate option to do so, but CapMetro staff is both trying to make that happen and trying to address issues with the driver, especially with future, new technology.

Audrea Diaz asks what the process is if the operator is reassigned to her, and Chad Ballentine says that she would not be penalized but that she would need to cancel the ride and call dispatch again. She doesn’t have to go into detail about why she is requesting a new operator, she can simply ask for a new operator.

Paul Hunt expresses his gratitude to committee and community members for piloting various CapMetro programs, and says that he would like to have a work session for Fare Capping to integrate it with MetroAccess.

Glenda Born asks if the paratransit service area takes into account rail service, and Sara Sanford says no, rail service is not taken into account.

MetroAccess Staff Sensitivity Training
Chad Ballentine, VP of Demand Response and Innovative Mobility
Sara Sanford, Director of Eligibility, Training, and Customer Management
Chad Ballentine and Sara Sanford overview their efforts to train all MetroAccess Staff (not just operators) on professional conduct and communication.

Glenda Born asks if the training will happen in groups or in a one-on-one setting and expresses her interest in attending a training to understand the steps being taken to train MetroAccess Staff.

Chad Ballentine explains that there will be at least 20 trainings, since there are 450-500 total staff needing to be trained.

Sara Sanford says that they can attempt to work it into the scope of the eventual consultant contract to have a presentation at the committee outlining the training.

Audrea Diaz mentions that special attention may need to be considered for training operators who have been employed by MetroAccess for many years.

Chad Ballentine explains they're involving the union regarding trainings and that they'll take that feedback into account.

Initial FY2024 Budget Review
Kevin Conlan, Deputy CFO

Kevin Conlan overviews the initial budget for FY2024, including investments in a Demand Response operations and maintenance facility, paratransit van replacements, and bus stop enhancements.

Glenda Born asks if light rail infrastructure is being included in the budget, and Kevin Conlan explains that Austin Transit Partnership is developing that system and the budget belongs to them.

Celia Israel asks how staff raises are being included in the budget, and Kevin Conlan explains that there's an average annualized pay increase included in the budget, but that the specific number isn't finalized yet.

Debra Miller explains that electrical outlets are needed for riders at stops, and Martin Kareithi agrees and says that CapMetro will be adding outlets to the new Pleasant Valley and Expo CapMetro Rapid stops and continues to work to add that functionality to other stops.

Mike Gorse asks if CapMetro can take out bonds with its revenue, and Kevin Conlan explains that, due to CapMetro's designation as a transportation agency, its ability to issue bonds is very limited.

Proposed August Service Changes
Lawrence Deeter, Manager of Systems Development

Lawrence Deeter outlines the June and August service changes.

Audrea Diaz asks if the e-bus service will be re-instated, and Lawrence Deeter says that CapMetro continues to be cautious of re-instituting services to pre-pandemic levels before they can be sure they can provide it at the quality it deserves. He also mentions that just before the pandemic, CapMetro had seen lower ridership on the E-Bus service, and that service in particular presents issues for maintenance and upkeep of vehicles.

Glenda Born asks what is involved in developing a new route. Lawrence Deeter says customer feedback and other data would inform proposals for new services. Once a proposal is made, the Planning department would evaluate the proposal for equity and cost feasibility, gather feedback, and determine whether to implement the change or go back to the drawing board.
Paul Hunt asks about restoring the Route 335 frequency to 15 minutes, and Lawrence Deeter explains that CapMetro continues to be conscious of re-instituting service so that they can always serve customers effectively.

Service Standards and Guidelines
Emma Martinez, Transportation Planner I

Emma Martinez gives a short update on the Service Standards and Guidelines, and shares that the feedback period is open until June 14.

Advisory Committee Updates
Peter Breton, Community Engagement Coordinator

Peter Breton outlines the work CapMetro staff will take to support the advisory committees and formalize procedures within the committees during the July recess. That includes public communications, time-keeping, and other systems.

Travel Training Program
Sara Sanford, Director of Eligibility, Training, and Customer Management
Isacc Perez, Travel Trainer

Isacc Perez overviews CapMetro’s travel training program, and how to sign up.

Paul Hunt mentions that he’s unable to find a file called stops.txt through MetroLabs, and is trying to regain access to it. Martin Kareithi says that he’ll follow up.

Approval of the minutes - Motion to approve by Andrew Bernet/ 2nd by John McNabb. Passes unanimously.

Meeting adjourned at 7:06 PM
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Approval of minutes from the May 22, 2023 board meeting.
I. Call to Order

12:07 p.m. Meeting Called to Order

Present: Travillion, Pool, Stratton, Ross, Harriss, Vela, Bangle, and Ellis

II. Recognition

1. Cap Metro Bus and Paratransit Roadeo Winners

Vice President of Bus Operations and Maintenance Miles Turpin recognized bus operators and mechanics who were participants and winners at the recent Cap Metro and state Bus Roadeos.

III. Public Comment:

Susan Pantell, May Taylor, Zenobia Joseph, David Li, Leander Mayor Christine DeLisle, Eli Cortez, Ruven Brooks, Emily Seales, Tony Carter, J.J. Ramirez, Barry Jones, Vernon Jarman, Shaman Perskin, Sara Black, and Sophie Taylor (later in the meeting) provided public comment.

IV. Advisory Committee Updates:

1. Customer Satisfaction Advisory Committee (CSAC)
2. Access Advisory Committee
3. Public Safety Advisory Committee (PSAC)

V. Board Committee Updates:

1. Operations, Planning and Safety Committee
2. Finance, Audit and Administration Committee
3. CAMPO update
4. Austin Transit Partnership Update

VI. Consent Items:

A motion was made by Secretary of the Board Pool, seconded by Board Member Bangle, to approve the Consent Agenda. The motion carried by the following vote:
Aye: Travillion, Pool, Stratton, Ross, Harriss, Vela, Bangle, and Ellis

1. Approval of minutes from the April 24, 2023 Board Meeting.

2. Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute a contract with RailComm LLC, to provide rail dispatch and management software hosting, maintenance and support for one (1) base year and two (2) option years in an amount not to exceed $771,644.

3. Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute a contract with EAR Telecommunications, LLC for the construction of a traffic signal at the intersection of Decker Lane and Colony Loop in the amount of $423,491, plus 15% contingency, for a total amount not to exceed $487,015.

VII. Action Items:

1. Approval of a resolution authorizing the President & CEO, or her designee, to implement the August 2023 Service Changes.

A motion was made by Secretary of the Board Pool, seconded by Board Member Stratton, that this Resolution be adopted. The motion carried by the following vote:

Aye: Travillion, Pool, Stratton, Ross, Harriss, Vela, and Bangle

Away: Ellis

2. Approval of a resolution authorizing the President & CEO, or her designee, to add $750,000 in funding to an existing contract with Stacy and Witbeck, Inc. for an in-progress Design-Build project for the McKalla Rail Station for a total contract amount not to exceed $20,883,945 and to grant to the City of Austin any easements reasonably necessary to operate and maintain the facilities constructed pursuant to this contract amendment.

A motion was made by Board Member Vela, seconded by Board Member Ross, that this Resolution be adopted. The motion carried by the following vote:

Aye: Travillion, Pool, Stratton, Ross, Harriss, Vela, and Bangle

Away: Ellis

3. Approval of a resolution authorizing the President & CEO, or her designee, to convey a Temporary Construction Easement to the City of Pflugerville across 1.316 acre of the 20.544 acres of land owned by CapMetro, in the J. C. Tannehill Survey 29, Abstract 22, located at the intersection of Loyola Road and Johnny Morris Road, Austin, Travis County, Texas, in exchange for compensation in the amount of $214,988 to CapMetro.

This item was pulled from the Consent Agenda by staff because the terms of the agreement had changed slightly.

A motion was made by Board Member Harriss, seconded by Board Member Ellis, that this Resolution be adopted. The motion carried by the following vote:
Aye: Travillion, Pool, Stratton, Ross, Harriss, Vela, Bangle, and Ellis

VIII. Report:

1. President & CEO Monthly Update

IX. Executive Session of Chapter 551 of the Texas Government Code:

Into Executive Session: 1:45 p.m.
Out of Executive Session: 2:38 p.m.

Section 551.072 for Deliberation regarding Real Estate matters related to the potential purchase of administrative offices

Section 551.074 for Personnel Matters related to President & CEO Performance Measures and Goals

X. Memos:

Note: Memos for information only. Will not be discussed at meeting.

1. Memo: CapMetro Fixed Route Service Request for Proposals (May 11, 2023)

2. Memo: Transit Empowerment Fund and New Program for Unhoused Community Members (May 18, 2023)

XI. Items for Future Discussion:

XII. Adjournment

2:39 p.m. Meeting Adjourned

ADA Compliance

Reasonable modifications and equal access to communications are provided upon request. Please call (512) 369-6040 or email ed.easton@capmetro.org if you need more information.

BOARD OF DIRECTORS: Jeffrey Travillion, Chair; Leslie Pool, Vice Chair; Becki Ross, Secretary; Eric Stratton, Paige Ellis, Matt Harriss, Dianne Bangle and Chito Vela.

The Board of Directors may go into closed session under the Texas Open Meetings Act. In accordance with Texas Government Code, Section 551.071, consultation with attorney for any legal issues, under Section 551.072 for real property issues; under Section 551.074 for personnel matters, or under Section 551.076, for deliberation regarding the deployment or implementation of security personnel or devices; arising regarding any item listed on this agenda.
SUBJECT:
Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute a Purchase and Sale Agreement for the purchase of a 5.846-acre tract of land located at 3100 East 5th Street and 618 Tillery Street, Austin, TX 78702, together with the 182,716-square-foot office building and all other improvements thereon, and any easements and rights appurtenant thereto, from 618 Tillery St. (Austin) Owner, LLC, for new CapMetro administrative offices, in an amount not to exceed $87,250,000 plus closing costs, as well as the payment of a broker fee to CBRE, Inc. in an amount not to exceed $654,375.

FISCAL IMPACT:
Funding for this action is available in the FY 2023 capital budget.

STRATEGIC PLAN:
Strategic Goal Alignment:
☒ 1. Customer  ☑ 2. Community
☒ 3. Workforce  ☑ 4. Organizational Effectiveness

Strategic Objectives:
☐ 1.1 Safe & Reliable Service  ☒ 1.2 High Quality Customer Experience  ☒ 1.3 Accessible System
☒ 2.1 Support Sustainable Regional Growth  ☒ 2.2 Become a Carbon Neutral Agency
☒ 2.3 Responsive to Community and Customer Needs  ☒ 2.4 Regional Leader in Transit Planning
☒ 3.1 Diversity of Staff  ☒ 3.2 Employer of Choice  ☒ 3.3 Expand Highly Skilled Workforce
☒ 4.1 Fiscally Responsible and Transparent  ☒ 4.2 Culture of Safety  ☒ 4.3 State of Good Repair

EXPLANATION OF STRATEGIC ALIGNMENT: This proposed purchase will replace multiple existing lease spaces to consolidate various CapMetro administrative offices into a new, centralized facility; improve the CapMetro end-user experience and employee efficiency; aid in the recruitment of new, highly-skilled employees by providing an improved work environment; assist in the pursuit of carbon-neutral status by utilizing greater solar power; and provide CapMetro with the flexibility and footprint to improve its existing operations at 2910 East 5th Street, while supporting the objective to provide public interface for improved community engagement in a transit-accessible location.
BUSINESS CASE: CapMetro administrative offices are currently scattered throughout the city, including in leased facilities at 700 Lavaca Street, 1000 Brazos Street, 507 Calles and 209 West 9th Street. The leases for these offices expire in December 2024, November 2023, and September 2023, respectively. This proposed purchase will provide space for CapMetro administrative offices as well as publicly accessible CapMetro community engagement space of a sufficient size for the growing Austin community. Consolidating lease spaces into one facility owned by CapMetro will save on operating costs and provide the Authority with greater flexibility and opportunities to coordinate internally. By assuming the existing tenant’s lease of a portion of the building, CapMetro will also realize significant revenue to offset a portion of the acquisition cost as the Authority grows into the full facility. Staff has obtained two (2) independent appraisals of the property, at least one of which support the proposed acquisition cost. The funding for this acquisition is available in the FY 2023 capital budget.

COMMITTEE RECOMMENDATION: This item will be presented to the full board on June 26, 2023.

EXECUTIVE SUMMARY: CapMetro is seeking additional administrative office space at a centralized location, to improve its ability to serve customers efficiently, recruit highly-skilled employees, and enhance organizational effectiveness. The proposed location is a newer building with solar panels and rainwater collection that will promote sustainability and improve the overall end-user and employee experiences and, in a transit acceptable location adjacent to the current CapMetro administrative offices and bus maintenance facility. This purchase will also provide a community engagement space to support various community activities hosted by CapMetro.

DBE/SBE PARTICIPATION: Does not apply.

PROCUREMENT: The not-to-exceed purchase price for 5.846 acres, including 182,716 square feet of office space, located at 3100 East 5th Street and 618 Tillery Street, Austin, TX 78702 from 618 Tillery St. (Austin) Owner, LLC is $87,250,000, which equates to $477.52 per square foot. This cost is less than the current replacement cost of this space in a similar central business district location, and the acquisition includes the assignment of an existing tenant lease, a solar lease, and various service contracts to CapMetro at closing. The broker fee to CBRE, Inc. of $654,375 represents 0.75% of the purchase price, for a total to CBRE of $1,745,000. 618 Tillery St. (Austin) Owner, LLC is willing to pay a 1.25% commission to CBRE, and CBRE’s contract with CapMetro requires Board approval of any additional commission beyond what the Seller is willing to pay.

RESPONSIBLE DEPARTMENT: Facilities Management
RESOLUTION
OF THE
CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY
BOARD OF DIRECTORS
STATE OF TEXAS
COUNTY OF TRAVIS

WHEREAS, the Capital Metropolitan Transportation Authority (CapMetro) Board of Directors and CapMetro management recognize the need to protect the safety of all employees and CapMetro assets and provide facilities that meet all city, state, and federal code requirements; and

WHEREAS, the CapMetro Board of Directors and CapMetro management recognize the need to provide adequate and appropriate office space for the workforce, as well as inviting, accessible spaces for the patrons utilizing the public areas of the facilities; and

WHEREAS, the CapMetro Board of Directors and CapMetro management recognize the need to make strategic real estate acquisitions to enable the future implementation of CapMetro’s sustainability, equity, and efficiency goals; and

WHEREAS, the purchase of 3100 East 5th Street and 618 Tillery Street would improve organizational effectiveness and reduce operating costs by replacing existing lease spaces in a single centralized facility, would improve the CapMetro end-user experience, would provide an improved public interface for enhanced community engagement, would move CapMetro towards a carbon-neutral footprint, would provide CapMetro with the flexibility and footprint to improve its existing operations at 2910 East 5th Street; and

WHEREAS, CBRE, Inc., has represented CapMetro as the Buyer’s agent in its search for new administrative offices and the negotiation of the 3100 East 5th Street and 618 Tillery Street acquisition, and CapMetro’s contract for broker services with CBRE requires Board approval of any commission amount beyond what the Seller is willing to pay as a commission to a Buyer’s agent;

NOW, THEREFORE, BE IT RESOLVED by the Capital Metropolitan Transportation Authority Board of Directors that the President & CEO, or their designee, is authorized to finalize and execute a Purchase and Sale Agreement and all other necessary agreements for the purchase of 5.846 acres of land, together with a 182,716-square-foot office building, located at 3100 East 5th Street and 618 Tillery Street, Austin, TX 78702, together with any improvements thereon, and any easements and other appurtenant rights thereto, from 618 Tillery St. (Austin) Owner, LLC, for new CapMetro administrative offices, in an amount not to exceed $87,250,000 plus closing costs; and
NOW, THEREFORE, BE IT FURTHER RESOLVED by the Capital Metropolitan Transportation Authority Board of Directors that the President & CEO, or their designee, is authorized to make a payment to CBRE, Inc., at the closing of the 3100 East 5th Street and 618 Tillery Street acquisition, in the amount of $654,375 for broker services in connection with the acquisition of the property, for a total amount to CBRE, Inc. not to exceed $1,745,000.

____________________  
Date: ____________________

Secretary of the Board  
Becki Ross
Purchase & Sale Agreement

June 26, 2023
CapMetro Administrative Facilities

- Currently have ~96,000 square feet of owned & leased admin space, which is less than the current space needed.

- Projected need for ~200,000 square feet in the next 20 years.

- Staff is spread out from one another and our front-line teams.

- Goal is to consolidate majority of administrative functions together and reduce reliance on rented space.
Consolidation Recommendation

• Recommendation: Buy 3100 E. 5th St. & 618 Tillery admin building (182.7k SF) adjacent to current headquarters at 2910 E. 5th Street.

• This purchase will cost less than building a new facility.

• Purchase will save ~$50 MM to $60 MM in lease costs over 10 years.
3100 E. 5th St. & 618 Tillery – Property Information

- Building Size – 182,716 SF
- Building Year Built – 2019
- Property Size – 5.85 Acres
- Building Class – A
- Parking Ratio – 3 Per 1,000 SF
- Available Parking Spaces – 559
- Solar Collection
- Rainwater Harvesting
3100 E. 5th St. & 618 Tillery – Proposed Use

- Corporate & Transit Administration
- Board Room

- Community Space
- Wellness Center

- Training Space
- Operations Control Center (potential)
3100 E. 5th St. & 618 Tillery – Cost & Revenue Summary

- Total Purchase Price: $87,250,000 or $477.52 psf
- Travis Central Appraisal District Value: $106,538,651
- Office Build-out Estimate: Phase 1: $13.5MM; Phase 2: $15.5 MM
- BetterUp leases 33,719 SF on Level 3 east thru 10/29.

Total Acquisition Cost to CapMetro = Purchase Price ($87.25 M) + $654,375 (0.75%) Broker Fee = $87,904,375 + closing costs.
Thank you!
SUBJECT: Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute an Interlocal Agreement (ILA) with the City of Georgetown for a Transit Development Plan (TDP) in an amount not to exceed $160,000 in FY23 FTA Section 5307 Funds and $40,000 in local funds from the City of Georgetown.

FISCAL IMPACT: This action reimburses Capital Metro for expenses incurred.

STRATEGIC PLAN:

Strategic Goal Alignment:

☒ 1. Customer ☒ 2. Community
☐ 3. Workforce ☐ 4. Organizational Effectiveness

Strategic Objectives:

☒ 1.1 Safe & Reliable Service ☒ 1.2 High Quality Customer Experience ☐ 1.3 Accessible System
☒ 2.1 Support Sustainable Regional Growth ☐ 2.2 Become a Carbon Neutral Agency
☒ 2.3 Responsive to Community and Customer Needs ☒ 2.4 Regional Leader in Transit Planning
☐ 3.1 Diversity of Staff ☐ 3.2 Employer of Choice ☐ 3.3 Expand Highly Skilled Workforce
☐ 4.1 Fiscally Responsible and Transparent ☐ 4.2 Culture of Safety ☐ 4.3 State of Good Repair

EXPLANATION OF STRATEGIC ALIGNMENT: This project will establish a partnership between Capital Metro and the City of Georgetown to use FY23 Section 5307 funding for a TDP. The TDP will provide service recommendations and a financing plan to assist the City of Georgetown in making decisions for future transit decisions with Capital Metro.

BUSINESS CASE: As the FTA Designated Recipient for transit funding for the Austin Urbanized Area, CapMetro is responsible for allocating FTA Section 5307 Funds within the urbanized area. Through this ILA, Capital Metro and the City of Georgetown will develop a TDP in compliance with the regional Service Expansion Policy. The TDP will be paid through FY23 FTA Section 5307 Funds from CapMetro and general funds from the City of Georgetown.
COMMITTEE RECOMMENDATION: This item will be presented to the full board on June 26, 2023.

EXECUTIVE SUMMARY: The City of Georgetown staff is developing an update to their 2016 TDP. CapMetro staff previously participated in the process as a stakeholder and worked with the City of Georgetown staff to determine how to move forward with additional transit planning. The updated TDP will help to prioritize transit projects with the City of Georgetown over the next three years.

DBE/SBE PARTICIPATION: Does not apply.

PROCUREMENT: Does not apply

RESPONSIBLE DEPARTMENT: Strategic Planning
RESOLUTION
OF THE
CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY
BOARD OF DIRECTORS

STATE OF TEXAS
COUNTY OF TRAVIS

AI-2023-820

WHEREAS, the Capital Metropolitan Transportation Authority Board of Directors and Capital Metro management endeavor to be a regional leader and grow the service and customer base for transit; and

WHEREAS, the Capital Metropolitan Transportation Authority Board of Directors and Capital Metro management recognize the need to partner with local jurisdictions in order to provide transit services outside the Capital Metro service area.

NOW, THEREFORE, BE IT RESOLVED by the Capital Metropolitan Transportation Authority Board of Directors that the President & CEO, or her designee, is authorized to finalize and execute an Interlocal Agreement (ILA) with the City of Georgetown for a Transit Development Plan (TDP) in an amount not to exceed $160,000 in FY23 FTA Section 5307 Funds and $40,000 in local funds from the City of Georgetown.

____________________
Date: __________________

Secretary of the Board
Becki Ross
Service Expansion Program

- The Service Expansion Policy adopted in June 2008 and revised in April 2014, reaffirmed in November 2022 defines five approaches for service to jurisdictions within the urbanized area that are not currently served by CapMetro.

- The Policy provides a process for distributing federal transit funding in the region (Section 5307 Funds) and implementing transit service.

- Section 5307 Funds makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.

- Jurisdictions within the urbanized area, but outside the CapMetro service area can participate.
Transit Development Plan (TDP)

- The program requires cities to first complete a Transit Development Plan (TDP) to identify transit service needs and assist in developing transit alternatives and financing.

- TDPs required for all new applications for service - This is an update.
- TDPs cover three years
- Guidelines provide requirements for data and analysis for initial TDP and for updates
- Guidelines provide requirements for a monitoring program to track performance
- CapMetro will provide technical support
Transit in Georgetown

- The City of Georgetown provides limited paratransit and senior service.
  - Operated by CARTS
- The City’s current TDP was adopted in 2016.
- The results of this TDP update will help guide Georgetown’s transit and mobility decisions for the next 3 years.
City of Georgetown ILA for TDP

• The Interlocal Agreement funds a three (3) year update to the Transit Development Plan for the City of Georgetown with the support of the CapMetro General Planning Consultant (GPC)

• CapMetro will provide FY23 Section 5307 funding for an amount not to exceed 80% of the cost for the Services

<table>
<thead>
<tr>
<th>Local Funding – The City of Georgetown</th>
<th>FY23 Section 5307 Funds</th>
<th>Estimated Cost of Transit Development Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>$40,000</td>
<td>$160,000</td>
<td>$200,000</td>
</tr>
</tbody>
</table>
Thank you!
INTERLOCAL AGREEMENT BETWEEN
CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY
AND
THE CITY OF GEORGETOWN
FOR
DEVELOPMENT OF THE CITY OF GEORGETOWN’S TRANSIT
DEVELOPMENT PLAN

This Interlocal Agreement ("Agreement") for development of the City of Georgetown’s Transit Development Plan ("TDP") is made and entered into by and between Capital Metropolitan Transportation Authority ("CapMetro"), a political subdivision of the State of Texas organized under Chapter 451 of the Texas Transportation Code, and the City of Georgetown ("City"), a Texas home rule municipal corporation and political subdivision of the State of Texas, pursuant to the provisions of the Interlocal Cooperation Act, Chapter 791 of the Texas Government Code. CapMetro and City are referred to in this Agreement collectively as the “Parties” and independently as a “Party”.

I. Contracting Parties:

The Receiving Agency: The City of Georgetown ("City")
P.O. Box 409
Georgetown, TX 78627

The Performing Agency: Capital Metropolitan Transportation Authority ("CapMetro")
700 Lavaca St., Suite 1400
Austin, TX 78701

II. Recitals:

a. CapMetro is a local government entity responsible for providing mass transit service within the City of Austin, and the surrounding communities of Leander, Lago Vista, Jonestown, Manor, San Leanna, and Point Venture, as well as the unincorporated area of Travis County within Commissioner Precinct 2 (boundaries as of date of agreement joining CapMetro) and the Anderson Mill area of Williamson County;

b. The City is not a participating member of the CapMetro service area;

c. Texas Transportation Code, Section 451.056, grants CapMetro the authority to contract with a municipality, county, or other political subdivision to provide public transportation services outside of its service area;
d. A Service Expansion Policy, approved by CapMetro’s Board of Directors in June 2008, amended in April 2014, and reaffirmed in November 2022, and endorsed by the Capital Area Metropolitan Planning Organization (CAMPO) in June 2014, defines the approaches for CapMetro to partner with cities and counties that are not currently a part of CapMetro’s service area;

e. One such approach is a contract for service whereby CapMetro provides service through an interlocal agreement with the jurisdiction. The jurisdiction pays the cost of service, with a credit given to the jurisdiction for Section 5307 Funds eligible expenses;

f. CapMetro is a “Designated Recipient” with legal authority to dispense federal funds;

g. The City, as of Census 2010, was designated a part of the Austin Urbanized Area, thereby making the City eligible to receive eligible Section 5307 Funds from CapMetro;

h. The Service Expansion Policy requires that jurisdictions seeking Section 5307 Funds prepare and maintain a three-year Transit Development Plan (“TDP”), to identify transit needs, analyze service options and financing, and provide recommendations for transit services;

i. In order to access funding for transit services through the Federal Transit Administration’s Urbanized Area Formula Funding program established under 49 U.S.C. 5307 (“Section 5307 Funds”) in accordance with CapMetro’s regional Service Expansion Policy, the City of Georgetown, in cooperation with CapMetro, prepared a Transit Development Plan (“TDP”), which was adopted by Georgetown City Council in 2016;

j. The City seeks Section 5307 Funds as a non-member jurisdiction to update their TDP to identify transit needs, analyze service options and financing, and provide recommendations for transportation services;

k. The Parties desire to define their roles and responsibilities for the administration of Section 5307 Funds; and

l. The Parties intend to conform this Agreement in all respects with the Interlocal Cooperation Act, Texas Government Code, Chapter 791.

NOW, THEREFORE, in consideration of mutual promises, covenants, obligations, and benefits contained herein and for the good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree to the terms and conditions stated herein as evidenced by the signatures of their respected duly authorized representatives below.
III. **Terms and Conditions:**

1. **Statement of Services to be Performed.**

   CapMetro will provide the following services ("Services"): 

   a. Develop a three (3) year TDP for the City with the support of the CapMetro General Planning Consultant ("GPC"). The TDP will provide practical guidance to the City to facilitate future transit service decisions. City staff will be included in all aspects of the project. 
   
   b. Develop the TDP in compliance with the requirements of CapMetro’s Service Expansion Policy.

2. **Terms of the Agreement.** This Agreement shall begin on July 1, 2023 (the “Effective Date”) and terminate the later of: (i) June 30, 2024 or (ii) completion of the Services.

3. **Financial Terms.** Consistent with federal funding practice, the Parties will receive Federal Transit Administration’s ("FTA") allocated funding for the Austin Urbanized Area, disbursed by population and population density distributed as formula funds under the Section 5307 program, with CapMetro being considered the “Designated Recipient” and with the City being considered a “Sub-recipient” for purposes of compliance with federal contracting requirements, including the provisions of FTA Circular 4220.1F and any other applicable federal contracting requirements.

   a. CapMetro will provide FY23 Section 5307 funding ("FY23 Section 5307 Funds") for an amount not to exceed 80% of the cost for the Services, as set forth in Exhibit “A”. FY23 Section 5307 Funds may not be used for FY24 transit services.
   
   b. The City will provide local funding for an amount not to exceed 20% of the cost for the Services, as set forth in Exhibit “A”.

4. **Payment Terms.** For performance of the Services, the City will provide local funding, as set forth in Exhibit “A”, upon receipt of an invoice therefore, in accordance with the Texas Prompt Payment Act (Chapter 2251 of the Texas Government Code). CapMetro will submit an invoice to the City upon completion of the Services or upon the termination of this Agreement, whichever is later, for the Services performed in an amount equal to the amounts billed to CapMetro by the GPC not to exceed the amount set forth in Exhibit “A”. 

5. **General Provisions.**

   a. **Default.** A party shall be in default under the Agreement if it fails to fully, timely and faithfully perform any of its material obligations under the Agreement.

   b. **Notices.** Any notice required or permitted to be delivered under this Agreement shall be deemed delivered when deposited in the United States mail, postage prepaid, certified mail, return receipt requested, addressed to the party to be served, at the addresses set forth above. Notice given in any other manner shall be deemed effective only if and when received by the party to be notified. A party may change its address for notice by written notice to the other party as herein provided.

   The City: P.O. Box 409
   Georgetown, TX 78627
   ATTN: David Morgan, City Manager

   CapMetro: 700 Lavaca St., Suite 1400
   Austin, TX 78701

   With Copy to: 700 Lavaca St., Suite 1400
   Austin, TX 78701
   ATTN: Chief Counsel

   c. **Good Faith.** The Parties agree to work together at all times in good faith, meet regularly, and keep each other informed as to activities of the other, and maintain at all times formal representatives to serve as points of contact for communications.

   d. **Alteration.** This Agreement may not be altered, amended, or modified except with written agreement from all Parties.

   e. **Cost for Preparation.** Each Party will be responsible for all costs and expenses associated with the preparation and adoption of this Agreement, the preparation and adoption of any further agreements, and future actions related thereto.

   f. **Amendments.** The City’s City Manager and CapMetro’s President and CEO will have the authority to negotiate and execute amendments to this Agreement without further action by the Georgetown City Council or the CapMetro Board of Directors, to the extent necessary to implement and further the clear intent of the respective governing bodies, but not in such a way as would constitute a substantive modification of the Agreement’s terms and
conditions or otherwise violate Chapter 791 of the Texas Government Code. Any amendments that would constitute a substantive modification to the Agreement must be approved by each party's governing body.

g. **Current Funds.** The Party or Parties paying for the performance or governmental functions or services shall make payments therefor from current revenues available to the paying party.

h. **Counterpart Agreements.** This Agreement may be executed in multiple counterparts which, taken together, will collectively constitute a single agreement, but in making proof of such agreement, it will not be necessary to account for more than one such counterpart.

i. **Venue and Applicable Law.** This Agreement will be performed and enforced in Travis County, Texas, and will be construed in accordance with the laws of the State of Texas. Venue with respect to all disputes will reside with the district courts of Travis County, Texas. All rules, regulations, and other requirements imposed by local, state, or federal law apply to the performance of the Parties under this Agreement.

j. **Force Majeure.** Except as otherwise provided, no Party is liable to the other parties for any delay in, or failure of performance, of a requirement contained in this Agreement caused by force majeure. The existence of such causes of delay or failure shall extend the period of performance until after the causes of delay or failure have been removed, provided the non-performing Party exercises all reasonable due diligence to perform. Force majeure is defined as acts of God, war, strike, fires, explosions, pandemic, or other causes that are beyond the control of the party asserting a force majeure claim, that by exercise or due foresight, such party could not reasonably have been expected to avoid, and which, by the exercise of all reasonable due diligence, such party is unable to overcome. A Party must inform the other parties in writing with proof of receipt within three business days of the existence of such force majeure.

k. **Survival of Obligations.** Conditions and covenants of this Agreement which by their terms are performable after the termination, expiration, or end of this Agreement shall survive such termination, expiration, or end and remain fully performable.

l. **Severability.** Should any one or more provisions of this Agreement be deemed invalid, illegal, or unenforceable for any
reason, such invalidity, illegality or unenforceability shall not affect any other provision held to be void, voidable, or for any reason whatsoever of no force and effect, such provision(s) shall be construed as severable from the remainder of this Agreement and shall not affect the validity of all other provisions of this Agreement, which shall remain of full force and effect.

m. **Headings.** The headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement.

n. **Interpretation.** In the event of any dispute over its meaning or application, this Agreement will be interpreted fairly and reasonably and neither more strongly for or against either Party.

o. **Third Party Rights Not Created.** This Agreement is not intended to and shall not be construed to create any rights or remedies in any person or legal entity that is not a party to it and the Parties are not waiving any defense or immunity to which they are entitled against any person or legal entity that is not a Party to this Agreement.

p. **Sovereign Immunity.** By execution of this Agreement, neither Party waives nor relinquishes any sovereign immunity rights available to it by law except as otherwise stipulated by applicable laws.

q. **No Assignment.** This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective legal representatives, successors, and assigns. No Party may assign any rights under this Agreement without the written consent of the other Party. Except as otherwise expressly provided herein, nothing in this Agreement, express or implied, is intended to confer upon any person, other than the Parties hereto, any benefits, rights, or remedies under or by reason of this Agreement.

r. **Entire Agreement.** This Agreement constitutes the entire agreement of the Parties. No other agreement, statement, or promise that is not contained in this Agreement shall be binding except by subsequent written amendment to this Agreement signed by the Parties. The Recitals contained in this Agreement are incorporated herein for all purposes.

*Remainder of page intentionally left blank.*
IV. **Signatories:** Each of the signatories to this Agreement represents and warrants that they are duly authorized to sign this in the capacity indicated to be effective as of the Effective Date.

**PERFORMING AGENCY**
Capital Metropolitan Transportation Authority

By: __________________________
    Dottie Watkins
    President & CEO
    CapMetro

Signature Date: __________________________

Approved as to Form

By: __________________________
    CapMetro Legal Department

**RECEIVING AGENCY**
City of Georgetown

By: __________________________
    Josh Schroeder
    Mayor

Signature Date: __________________________

**ATTEST:**

By: __________________________
    Robyn Densmore
    City Secretary

By: __________________________
    Skye Masson, City Attorney
### Exhibit “A”

<table>
<thead>
<tr>
<th>Transit Development Plan Funding Not to Exceed Amounts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY23 Section 5307 Funds (80%)</td>
<td>$160,000.00</td>
</tr>
<tr>
<td>Local Funds (20%)</td>
<td>$40,000.00</td>
</tr>
<tr>
<td>Total Funds (100%)</td>
<td>$200,000.00</td>
</tr>
</tbody>
</table>
SUBJECT:
Approval of a resolution authorizing the President & CEO, or her designee, to finalize and execute a contract with Jay-Reese Contractors, Inc., for the construction and replacement of two (2) bridge spans at Milepost (MP) 52.44 in the East subdivision for a contract term of Three Hundred Sixty-Five (365) calendar days from Notice to Proceed in the amount of $3,981,000, plus 20% contingency, for a grand total not-to-exceed amount of $4,777,200.

FISCAL IMPACT:
Funding for this action is available in the FY2023 & proposed FY2024 Capital Budget.

STRATEGIC PLAN:
Strategic Goal Alignment:
☒ 1. Customer  ☒ 2. Community
☐ 3. Workforce  ☐ 4. Organizational Effectiveness

Strategic Objectives:
☒ 1.1 Safe & Reliable Service  ☒ 1.2 High Quality Customer Experience  ☐ 1.3 Accessible System
☐ 2.1 Support Sustainable Regional Growth  ☐ 2.2 Become a Carbon Neutral Agency
☒ 2.3 Responsive to Community and Customer Needs  ☐ 2.4 Regional Leader in Transit Planning
☐ 3.1 Diversity of Staff  ☐ 3.2 Employer of Choice  ☐ 3.3 Expand Highly Skilled Workforce
☐ 4.1 Fiscally Responsible and Transparent  ☒ 4.2 Culture of Safety  ☐ 4.3 State of Good Repair

EXPLANATION OF STRATEGIC ALIGNMENT: The replacement of two steel spans of the bridge over Walnut Creek will ensure continued quality freight service within the cities of Marble Falls and Giddings. Completion of the project would increase safety and maintain that service for the benefit of the shippers and receiving customers.

BUSINESS CASE: The existing steel spans of the bridge are more than a hundred years old and are to be replaced in accordance with the agency’s state of good repair program. Cap Metro has received a Consolidated Rail Infrastructure and Safety Improvements (“CRISI”) grant for $2.31 million through the Federal Railroad Administration for this project. The funding for this action is available in the FY2023 Budget and
Operations, Planning and Safety Committee Item #: AI-2023-824 Agenda Date: 6/14/2023

FY2024 Capital Budget.

COMMITTEE RECOMMENDATION: This item will be presented to the full board on June 26, 2023.

EXECUTIVE SUMMARY: This contract is to construct a fully functioning rail bridge in accordance with the Authority's technical requirements, guidelines, and other provisions to replace two (2) steel spans of the bridge at MP 52.44 in accordance with the agency state of good repair program. This project will ensure safe freight service by replacing a 22’ deck plate girder (DPG) and a 107’ through pin connected truss span (TPCT) with an open deck steel through plate girder (TPG). Capital Metro will preserve the 107’ through pin connected truss span (TPCT) at a designated location and display for the public as a historical monument. The scope of work also includes the relocation of the existing historical truss to a different location for public display.

DBE/SBE PARTICIPATION: The contractor (Jay-Reese Contractors, Inc.) indicated a .75% DBE commitment for the contract. The contractor also provided Good Faith Effort documentation showing their attempt to consider DBEs for subcontracting opportunities listed in the contract.

PROCUREMENT: On January 18, 2023, an Invitation for Bids was issued and formally advertised. By the closing date of May 16, 2023, two (2) bids were received.

<table>
<thead>
<tr>
<th>Bidder</th>
<th>Total Bid Amount</th>
<th>20% Contingency</th>
<th>Grand Total N-T-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jay-Reese Contractors, Inc.</td>
<td>$3,981,000</td>
<td>$796,200</td>
<td>$4,777,200</td>
</tr>
<tr>
<td>Herzog Contracting Corp.</td>
<td>$7,640,592</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Jay-Reese Contractors, Inc. was the lowest, responsive, responsible bidder and submitted all the required documents with their bid, which was received prior to the established date and time for the receipt of bids. Pricing was determined to be fair and reasonable based on adequate competition. Jay-Reese Contractors, Inc. is not debarred on any federal or state debarred vendor lists. The contract is a fixed price contract with a period of performance of Three Hundred Sixty-Five (365) calendar days from Notice to Proceed.

RESPONSIBLE DEPARTMENT: Capital Construction and Facilities Management
RESOLUTION
OF THE
CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY
BOARD OF DIRECTORS

STATE OF TEXAS
COUNTY OF TRAVIS

AI-2023-824

WHEREAS, the Capital Metropolitan Transportation Authority Board of Directors and Capital Metro Management endeavor to provide the best customer experience and to better serve Central Texas residents; and

WHEREAS, the Capital Metropolitan Transportation Authority Board of Directors and Capital Metro Management recognize the need for the replacement and construction of the (2) two steel spans of the bridge at Milepost 52.44; and

NOW, THEREFORE, BE IT RESOLVED that the Capital Metropolitan Transportation Authority Board of Directors authorizes the President & CEO, or their designee, to finalize and execute a contract with Jay-Reese Contractors, Inc., for the construction and replacement of two (2) bridge spans at Mile Post 52.44 in the East Subdivision for a contract term of Three Hundred Sixty-Five (365) calendar days from Notice to Proceed in the amount of $3,981,000, plus 20% contingency, for a grand total not-to-exceed amount of $4,777,200.

Date: __________________________

Secretary of the Board
Becki Ross
Bridge Spans Replacement – MP 52.44

- Existing Bridge with 28 Timber spans and 2 Steel Spans in East Rail Subdivision.
- Two Steel Spans (Historic Truss & Deck Plate Girder) estimated to be ~ 100 years old, are scheduled to be replaced.
- CapMetro will preserve the 107’ historical truss span at a designated location east of US 183 for public display as a historic monument.
Bridge Spans Replacement

- CapMetro has received a Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant from the Federal Railroad Administration for $2.31M for this project.
- Jay Reese Contractors Inc., presented the lowest responsive and responsible bid for construction phase.
- Amount not to exceed $4,777,200 that includes a 20% contingency.
- DBE Goal: 7.5%
- Expected notice to proceed in July 2023.
- Forecast one-year construction period.
Thank you!
SUBJECT:
Approval of a resolution adopting an updated set of Capital Metro Service Standards and Guidelines.

FISCAL IMPACT:
This action has no fiscal impact.

STRATEGIC PLAN:
Strategic Goal Alignment:
☒ 1. Customer ☒ 2. Community
☐ 3. Workforce ☒ 4. Organizational Effectiveness

Strategic Objectives:
☐ 1.1 Safe & Reliable Service ☒ 1.2 High Quality Customer Experience ☐ 1.3 Accessible System
☒ 2.1 Support Sustainable Regional Growth ☐ 2.2 Become a Carbon Neutral Agency
☒ 2.3 Responsive to Community and Customer Needs ☒ 2.4 Regional Leader in Transit Planning
☐ 3.1 Diversity of Staff ☐ 3.2 Employer of Choice ☐ 3.3 Expand Highly Skilled Workforce
☒ 4.1 Fiscally Responsible and Transparent ☐ 4.2 Culture of Safety ☐ 4.3 State of Good Repair

EXPLANATION OF STRATEGIC ALIGNMENT: The Summer 2023 update to Capital Metro’s Service Guidelines and Standards was designed to be responsive to the community and provide a high-quality customer experience. These updates further support sustainable growth in our region and a continued fiscally responsible and transparent agency.

BUSINESS CASE: Capital Metro’s Service Guidelines and Standards were last updated in 2015 with the intention of updating them on a five-year cycle. It is necessary to update the document so that the agency can best evaluate system performance and design in the next Service Plan update.

COMMITTEE RECOMMENDATION: This item will be presented to the full board on June 26, 2023.

EXECUTIVE SUMMARY: The Capital Metro Board of Directors last adopted the Service Guidelines and Standards in 2015. This document provides a guideline for transit design and updated performance measures for services and includes a formalized process for service evaluation. Capital Metro Service Guidelines and Standards includes two appendices, the Transit Stop and Station Design Guide and the Amenities Enhancement Process. Capital Metro’s Service
Guidelines and Standards are updated every 5-years and have been revised to include updated design and evaluation criteria.

DBE/SBE PARTICIPATION: Does not apply.

PROCUREMENT: Does not apply.

RESPONSIBLE DEPARTMENT: Strategic Planning and Development
RESOLUTION
OF THE
CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY
BOARD OF DIRECTORS

STATE OF TEXAS
COUNTY OF TRAVIS

WHEREAS, the Capital Metro Board of Directors recognizes the need to provide updated clear transparent guidelines for fixed-route transit services; and

WHEREAS, the Service Standards and Guidelines have been developed through community engagement, and community involvement in formalizing our service evaluation process and amenities enhancement process.

WHEREAS, the Capital Metro Board of Directors recognizes the need to revise existing service guidelines and standards to reflect current services and match industry best practices.

NOW, THEREFORE, BE IT RESOLVED that the Capital Metro Board of Directors approves the attached Capital Metro Service Guidelines and Standards including two appendices, the Transit Stop and Station Design Guide and the Amenities Enhancement Process.

____________________
Date: _____________________

Secretary of the Board
Becki Ross
Service Standards and Guidelines

Including:
Transit Stop and Station Design Guide & Amenities Enhancement Process

June 2023
Overview

Engagement

Service Standards and Guidelines

Transit Stop and Station Design Guidelines & Amenities Enhancement Process
Service Standards and Guidelines

Overview
Why is the update important?

A lot has changed since 2015…

• Population, job, and demographic changes in the service area

• Adapt to new changes with the most innovative practices for community

• Implementation of the new service plan, Cap ReMap (2018)

• Voter approval of the high-capacity transit plan, Project Connect (2020)
What’s new or changed?

Key changes

Updated **Service Types**
- From 14 types to 5 types

Updated **Service Standards**
- Streamlined and updated to industry standard
- Example: Changed to 85% OTP across the board (changed from 75% Middle of the Line or 90% End of Line)

Formalized the **Service Changes and Evaluation Process**
- Documented the existing evaluation processes and vetted with the public
- Clarified how we integrate equity
- Example: specified vulnerable demographics and when in the process they are included
What’s new or changed?

Key changes

Included **Transit Priority Measures**
- Included guidelines on dedicated lanes and intersection treatments

Included **Customer Experience**
- Used customer feedback to gain input on amenity need.
- Specified when we analyze customer call reports and integrate feedback into decision making process.

Included **Transit Stop and Station Design Guide**
- Updated to current best practice
- Classified stops by type

 Included **Amenities Enhancement Process**
- Identified amenity need by stop type
- Prioritization process for placing amenities at stops
What would be approved?

<table>
<thead>
<tr>
<th>Service Standards and Guidelines</th>
<th>Transit Stop and Station Design Guide</th>
<th>Amenities Enhancement Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPMETRO SERVICE STANDARDS &amp; GUIDELINES 2023</td>
<td>CAPMETRO TRANSIT STOP &amp; STATION DESIGN GUIDELINES 2023</td>
<td>CAPMETRO AMENITY ENHANCEMENT PROCESS 2023</td>
</tr>
</tbody>
</table>
Engagement – Phase One

- Community Focus Groups
  - Oct. 25 – Nov. 5
  - 8 Compensated Focus Groups

- Public Survey
  - Nov. 2 – Dec. 9
  - Used MetroAlert texts
  - Distributed and collected at bus stops
  - Received 1000+ responses

- CapMetro Department Staff Interviews and Content Workshops
  - July 2022 – March 2023
  - Over 20 workshops and staff interviews
    - Virtual and in person
  - Presented at CAC, PSAC, CSAC, ACCESS, and DEI Advisory Group meetings.
    - Fall/Winter 2022
Advisory Committees Workshop Recap

• Workshop with:
  • CAC
  • PSAC
  • CSAC
  • ACCESS
  • DEI Advisory Group

• Asked what we should consider in our:
  • Service Evaluation Process
  • Amenities Enhancement Process
What customers are saying

• What should CapMetro prioritize when planning a route?

Better access to:

- Grocery stores
- Health services/clinics
- Job centers
- Schools
- Surrounding areas

• How should CapMetro prioritize where to put amenities?

Factors for bus stop amenities:

- Transfer points
- Comfort and safety
- Longer wait times
- Proximity to services for people in need
Engagement – Phase Two

- Committee Workshop on Service Evaluation and Amenities Enhancement Process
  - April 10th, 2023 with CAC, PSAC, CSAC, ACCESS, and DEI Advisory Group

- CapMetro Operations and Finance Committee Workshop
  - May 17th, 2023

- SSG Document Overview Videos On Website
  - May 15th, 2023

- Draft Documents Available for Review
  - May 23rd – June 26th, 2023

- Board Member Meetings as Requested
  - May–June 2023

- Present at ACCESS June 7th and at CSAC June 14th.

- Present at CapMetro Board for Adoption.
  - June 26th, 2023
Board Workshop Recap

- Workshop with CapMetro Board of Directors
- Conducted an example activity to go through each step of the processes
- Asked what we should consider in our:
  - Service Evaluation Process
  - Amenities Enhancement Process
Next Steps

If adopted we will:

✓ Have updated key performance indicators that would help us to measure our services more accurately against each other.

✓ Have this reference document available for our staff and the community that provides an overview of how service planning is guided and how service is measured today.

✓ Have a visualized and replicable process for service changes to support our staff in communicating better with the community. We have more clearly indicated where and how we are conducting an equity analysis.

✓ Have an amenities enhancement process that includes equity considerations for the placement of our amenities.

✓ Publish these documents on the CapMetro website where staff and the community can easily access.
Thank you!
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- Amenity Distribution Scoring Rubric: 102
GLOSSARY

**Public Transit or Public Transportation:** A transportation system that is available for use by the general public that moves groups of people. As opposed to a private vehicle that generally carries fewer people and has limited access.

**Transit Service:** A system or network that supplies public transportation in the form of rides to and from different locations provided by a transit agency.

**Service Area:** The area served by CapMetro transit. This includes cities and communities that have authorized a 1-cent sales tax to fund transit or an in-lieu partnership agreement. The CapMetro service area includes Austin, Jonestown, Lago Vista, Leander, Manor, Point Venture, San Leanna and parts of Travis and Williamson Counties.

**Fixed Route:** A transit route with a fixed schedule and designated stops for picking up and dropping off riders.

**Service Types:** Groups or categories of similar types of transit services according to their form or function used to manage and monitor service effectively. For CapMetro this includes High Capacity, Frequent, Local, Community, Limited, and more.

**Transit Demand:** Refers to the level of desire and need for public transportation services within a given area or population. It represents the quantity and frequency of individuals who choose or require the use of buses or trains to travel from one location to another. Transit demand is influenced by various factors, including population density, travel patterns, urbanization, land use, accessibility, and the availability and quality of public and private transportation options. Understanding transit demand is crucial for transportation planners and authorities to effectively design, optimize, and meet the transportation needs of communities.

**Standard:** A point of reference or benchmark used to compare how a transit service performs. If something “meets the standard” it has an acceptable level of performance.

**Schedule:** The schedule is how the span and frequency operate throughout the day. Most often, this lays out each trip and the expected time of service from the start of the line, at timepoints, and at the end of the line. A schedule helps riders plan when they would need to reach a stop in order to use transit service.

**Span:** The number of hours in a day that revenue service is provided. Time starts when the first bus arrives at its first timepoint to when the last departs from its last timepoint.

**Frequency:** How often (in minutes) a bus passes by a bus stop during an hour.

**Service Change:** Adjustments to CapMetro services made at regular intervals throughout the year based on analysis of performance measures, community and operator feedback and available resources.

**Performance:** How well or poorly a transit route carries out its function.

**Evaluation:** An assessment of service at a specific point in time to determine its performance.

**Monitoring:** Keeping an eye on route performance over time to assess when changes might need to be made.

**Reporting:** The process for giving an account of the process and results of an evaluation or monitoring.

**Key Performance Indicators (KPIs):** Data points used to measure outcomes determined to be important to the success of transit.
ABOUT THIS DOCUMENT

CapMetro connects the people, jobs and communities of the Austin area by providing quality transportation choices. The CapMetro Service Standards & Guidelines provide a framework for how the agency designs and monitors transit service, as well as the process for making changes. The document is divided into three main sections.

The Guidelines & Best Practices section defines the different types of fixed-route transit service and a set of principles for how they should be designed.

The Service Standards section provides guidance on how CapMetro measures service performance and determines if changes are needed. Standards help ensure that CapMetro is meeting the expectations of the guidelines moving forward.

The Service Changes & Evaluation section describes the steps and timeline for making changes to service, especially when the service is not meeting the standards.

How to Use & Update This Document

Service standards are developed by each transit agency in the United States to guide the design, implementation and evaluation of their services. CapMetro staff conducts a review of the Service Standards & Guidelines regularly, typically every 5 years. The document is required by FTA Circular 4702.1B to comply with Title VI of the Civil Rights Act, which requires all transit agencies to develop service standards and guidelines. With each 5-year update, the Service Standards & Guidelines are updated to reflect the latest industry and agency best practices, recent service findings and experiences, feedback from the community, changes to service types and availability of resources. The document is then submitted to the CapMetro Board of Directors for approval.

In preparation for this update, CapMetro reviewed guidelines from 11 other transit agencies to develop an understanding of peer best practices, and completed internal and external engagement to determine what has worked well and what could be improved upon from previous guidelines.
ABOUT CAPMETRO

Each department within CapMetro works together to plan and operate transit service, ensure efficient use of funding, manage accessibility, safety, vehicles and capital investments, engage with the community, and more. Different departments have different roles and levels of involvement when it comes to the development of the Service Standards & Guidelines or in supporting adherence to these guidelines after their adoption.

CapMetro’s Overarching Principles

Equity, Accessibility and Sustainability are key principles to designing an inclusive transit system. CapMetro strives to integrate these principles into each aspect of the planning and implementation processes. CapMetro conducted engagement with the public, detailed in the Engagement Summary for the Service Standards and Guidelines Update, as well as with internal staff to determine how accessibility, equity and sustainability can guide decision-making. The Service Standards & Guidelines were developed not only to ensure regulatory compliance or operational efficiency, but also to serve as a channel for advancing a more equitable, accessible and sustainable transportation system in the region.

**Equity** – As an agency, CapMetro is committed to delivering equitable and inclusive transit service. During the process of updating this document, the agency reviewed internal practices, standards and methodologies and codified considerations for people in the Central Texas region who rely on transit most. CapMetro also conducted internal interviews to discuss and document how service standards meet the needs of the community. Public engagement involving surveys, compensated focus group meetings, and a community advisory committee workshop also helped garner feedback on our processes. This document formalizes CapMetro planning processes and includes the following equity considerations in the guidelines:

- The service change process in the Service Changes & Evaluation section describes the steps for how CapMetro approaches service changes. The evaluation includes a demographic analysis that looks at the effects of a proposed change on the surrounding community. The evaluation includes an analysis of Black, Indigenous, people of color (BIPOC) populations, low-income, older adults, youth, individuals with disabilities, individuals with limited English proficiency, and zero car households. See page 38 for more details.
• CapMetro also outlines a data-driven methodology for evaluating how to distribute transit amenities across stops and stations. The process will guide CapMetro in placing these amenities based on community need. The analysis considers who a stop or station is serving and how it is being used. Please see the Amenity Enhancement Process for more detailed information.

**Accessibility** – CapMetro always strives to improve accessibility across services and is conducting a Self-Evaluation and ADA Transition Plan for accessibility across agency programs, services, facilities and technologies. CapMetro reviews all designs against Texas Accessibility Standards (TAS) and Public Rights-of-Way Accessibility Guidelines (PROWAG) to ensure compliance and that individuals with disabilities are able to safely access CapMetro services.

**Sustainability** – CapMetro works to integrate and track sustainability methods and treatments, including those outlined in the CapMetro Sustainability Vision Plan. CapMetro is also collaborating with the City of Austin and Austin Transit Partnership to develop sustainability-focused guiding principles and policies that provide resiliency in the face of a changing climate. These will assist planning, design and construction teams with integrating sustainability into agency processes and outcomes and summarize both mandatory requirements as well as additional voluntary measures that will help meet larger strategic goals.

**REGIONAL COORDINATION**

Central Texas is a growing region with transportation needs that go beyond the larger metropolitan areas. In 2013, CapMetro and Capital Area Rural Transportation System (CARTS), the regional rural transit provider for areas of Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Travis and Williamson Counties, created the Office of Mobility Management (OMM). The OMM focuses on closing gaps in transit service by working with local jurisdictions, coordinating with service providers, and implementing new transportation tools in the region. The OMM strives to integrate the regional network of transit services in the Central Texas region. It is dedicated to meeting the transportation needs of senior adults, people with disabilities and veterans while addressing gap areas. The OMM also provides information to customers with travel requirements that cross jurisdictional boundaries or agency and service provider boundaries.

CapMetro adopted a Service Expansion Policy in June 2008 that was later revised in April 2014 and reaffirmed by the Board of Directors in November 2022 to provide guidance when there is a desire to add new service in the region in an area outside the existing service area. It defines approaches for service to jurisdictions within the region that are not currently served by CapMetro.

This policy defines the process for distributing federal transit funding in the region (Section 5307 Funds) and implementing transit service. Jurisdictions within the urbanized area, but outside the CapMetro service area, can participate. The program requires cities to first complete a Transit Development Plan (TDP) to identify transit service needs and assist in developing transit alternatives and financing. CapMetro currently coordinates with the cities of Buda, Hutto, Georgetown, Round Rock and Pflugerville as well as Travis County on updates to the required TDPs.

**Future Services**

This update to the Service Standards & Guidelines references future new modes of transit service, including Light Rail, which CapMetro will operate in the future with the implementation of Project Connect investments. However, this document does not set performance standards for these services yet. CapMetro will update its guidelines to include standards for new service types as they are implemented so that initial performance data can be used to set realistic thresholds.
CAPMETRO SERVICE TYPES

While all transit services are designed to connect riders to different destinations across the service area, different CapMetro transit services are a better fit for specific markets. All transit services function as part of the network, and different routes each have their own function within the network. This means that CapMetro’s services have unique characteristics, including how early or late the service runs, how often the service comes, how far apart the stops are and factors such as the type of activity along the route and the nearby land uses. This document focuses on fixed route bus and rail transit, services that have a fixed schedule and designated stops for picking up and dropping off riders.

Similar services were grouped into categories called service types. Service types allow each route's performance to be evaluated relative to routes serving a similar purpose or with similar fundamental characteristics. Specific performance metrics for each route type are described in the Service Standards portion of the document. Routes can move between categories with changes over time. These service types are referenced throughout the document where detailed guidelines and standards for service quality and effectiveness are provided.

High Capacity
High Capacity routes are designed to carry more passengers per hour, faster. Stops are spaced further apart and are distinct from other routes in the system, with stations that can accommodate more people. This service can also use larger vehicles that accommodate more riders at a time. High Capacity routes are often implemented along highly traveled regional corridors where ridership is historically high and higher transit vehicle capacity is necessary to accommodate the travel demand.

**Rail:** MetroRail Red Line

**Rapid:** MetroRapid 801 and 803

Frequent
Bus routes that operate every 15 minutes or better during the day on weekdays and Saturdays, at least.

Local
Bus routes that typically operate every 30 minutes on weekdays, serving major destinations including downtown Austin, universities, shopping centers, and transit hubs.
Limited
Routes that have limited stops and/or limited times for service. These services often have a specific purpose such as providing express service for commuters at peak times or connecting to/from the high capacity network.

Express: Commuter bus service that brings outlying residents to and from Central Austin
Flyer: Limited-stop bus routes between downtown and various neighborhoods
Rail Connector: Circulators connecting neighborhoods to Red Line stations

Community
Routes tailored to specific populations, such as students and seniors, and their key destinations, or to meet a specific community need, such as providing essential connections to grocery stores or they are supported by community partnerships, e.g. University Routes. The frequency and span of community routes are tailored to the specific populations they serve.

Community Shuttles: Routes that connect neighborhoods to nearby destinations
University Routes: Frequent circulator routes that connect the University of Texas campus and residential areas
Night Owl: Late night local service

There are other local public transit services that are not covered in these guidelines.

Pickup – On-demand service available in designated zones located throughout the CapMetro service area. Service information and criteria for Pickup are available in the Pickup Standards & Guidelines.
Bikeshare – Public bikeshare program that provides first- and last-mile transportation to better connect the community to and from transit. MetroBike, Austin’s public bikeshare service is now operated and maintained by CapMetro. It has an initial guiding plan called the MetroBike Expansion Plan. As the service develops, more guiding documents will become available.
Access – Demand-response paratransit service complementary to fixed-route service provided in accordance with the Americans with Disabilities Act
Rideshare – Carpool and vanpool service for registered customers
Guaranteed Ride Home – Emergency taxi service for registered customers
SERVICE GUIDELINES & BEST PRACTICES

This section contains the CapMetro Service Guidelines & Best Practices, which describe strategies for how to design, implement, and modify fixed-route transit services. This section provides an overview of industry-wide principles for designing a transit network, routes and schedules that meet the community’s needs and are easy to navigate for its riders.

The guidelines in this document apply to both rail and bus fixed-route transit. Due to the greater flexibility of bus service, more of this section will apply to bus service than rail. While much of the section details strategic best practices for staff, the core purpose of the guidelines is the matching of service types to the specific communities served. Allocating the appropriate amount of service is key to ensuring transit is both convenient for riders and a sustainable use of community resources.
SYSTEM DESIGN GUIDELINES

When designing a transit system it is important to consider where people live and where they are trying to go. To be an efficient steward of public dollars, CapMetro considers the purpose each route serves in the system, how each route supports the entire transit system and who each route is serving to better understand the unique needs of how transit can serve the community well.

The most efficient transit routes are designed to serve areas with high ridership potential. Efficient routes and networks serve areas where people are and where they want to go by linking together key destinations and providing service along corridors that have high levels of demand. This means that some routes may be oriented towards serving areas of very high ridership potential, while others in the network provide wider coverage in areas where people need it the most. All routes are designed to work together to strengthen ridership of the system while serving the community. The sections that follow will provide information on the principles and guidelines that support the design of a robust transit system.

Transit and land use are fundamentally connected.

Transportation and the ways communities have developed have been intricately linked throughout history. In Central Texas, people historically traveled by streetcars and railroads until personal vehicles became the most prominent mode. Widespread car use has caused the key destinations within the region to move further away from the center of cities and beyond walkable distances. Across the country, the reliance on personal vehicles has demonstrated how transportation options impact development and, in turn, how that pattern of development leads people to choose one mode of transportation or another. For transit to provide the most benefit, it must be well suited to the development pattern of the area it serves.

These guidelines identify key characteristics of the built environment that relate to transit demand, including density, demographic characteristics of the residents of an area, the connectivity of the existing transportation networks and the location of major activity centers that are common destinations within a community.

Transit is best supported by mixed uses and density.

Routes are more efficient when they serve areas of high transit demand, or areas where people live (i.e., residential density), and work (i.e., employment density). While density of jobs or residents are good indicators of transit demand, a mix of land use in the same areas can produce even more demand than either alone. Mixed-use areas create a steady demand for transit throughout the day and evening. Other transit-supportive land uses include commercial and institutional areas, which attract large numbers of employees, patrons and guests.

Transit Oriented Development in Austin

CapMetro has also been involved in planning for Transit Oriented Development by advocating for mixed-use development near transit and supporting zoning that permits this type of development.

CapMetro has been leading Equitable Transit Oriented Development efforts, working in coordination with local jurisdictions to ensure that high-capacity transit investments are supported by development that not only increases transit ridership, but also provides access and space for people who need it the most in our community.
CapMetro’s transit service strives to serve and connect multiple destinations using network design best practices. The most effective transit routes should be designed to serve areas with high ridership potential and provide access to key destinations. The strongest destinations for transit have intense activity throughout many times of the day; sometimes, activity centers and corridors with high ridership potential may be suitable as connection points for several transit services, such as downtown Austin or “The Drag” on Guadalupe Street near the University of Texas.

Well-defined markets may include:

- Large/high-density housing complexes
- Medical destinations (hospitals, doctor’s offices, dialysis centers)
- Groceries and retail (Walmart, H-E-B, etc.)
- Social services providers (workforce solutions, Social Security offices, disability services, etc.)
- Sporting arenas and event centers (Q2 Stadium, Moody Center, Exposition Center)
- Shopping/entertainment districts (Downtown, the Domain)
- Colleges and universities (Austin Community College, the University of Texas, St. Edwards University, Huston-Tillotson University, etc.)
- Employment centers (office buildings, major retailers)

To better understand travel trends and how riders are using transit services in Central Texas, CapMetro conducts an Origin and Destination Rider Survey every 5 years. This survey is generally conducted during the spring and collects thousands of responses from riders about where their trip begins and ends, how frequently they ride and other questions. The most recent results of this data-driven market study were completed in Summer 2023.
The transit network should be supported by infrastructure.

Transit moves people, but it’s important for it to be safe, comfortable and convenient to use as well. Transit service should be supported by well-connected streets and sidewalks, which make using transit easier and safer. Areas with poor street network connectivity, poor pedestrian access, physical barriers and frontage roads may be unsafe for transit riders and require more time and resources or a coordinated approach with agency partners to serve effectively.

When streets and the surrounding environment are designed to support a variety of modes, more people choose to take transit. People may access transit in a variety of ways: walking, biking, using bike share like MetroBike, scootering, ridesharing, Pickup, or driving to a Park and Ride. These are often referred to as the first- and last-mile connections to transit.

Where possible, transit-supportive street design choices, such as transit priority lanes, traffic calming measures, safe bicycle facilities and wide sidewalks or shared-use paths, can help transit vehicles run more efficiently while also keeping drivers, cyclists, and pedestrians safer.

These efforts are just as important to the success of the CapMetro system as its routes and schedules are. When done right, they can enhance current users’ experience and attract new riders. As Central Texas continues to experience growth, ensuring transit access across the area is a key to continued economic growth and prosperity. CapMetro will continue to work closely with member jurisdictions, partner agencies, and communities to promote regional connectivity.

CapMetro partners with other jurisdictions to design and construct transit supportive infrastructure.

Because CapMetro operates its services within the public right-of-way, the agency must coordinate with partner jurisdictions when implementing transit supportive infrastructure across the service area. Because most CapMetro services operate within the City of Austin, regular coordination with city departments is needed on projects that enhance bus travel times and improve first- and last-mile access to transit. This coordination frequently results in improved or new infrastructure that not only supports transit, but also supports the City’s mobility and active transportation goals.
Transit should prioritize serving the people who need it most.

Some people rely on transit more than others, as seen in data that shows that a higher proportion of their demographic group uses the service. These groups include people who don’t own a car, people with disabilities, students, youth, seniors, limited-English speaking populations, low-income populations and BIPOC populations. More priority needs to be given to these groups when making decisions about where transit service is placed and how often transit service comes. Serving those who need the service the most also makes the service more accessible for everyone.

Source: 2021 American Community Survey
*Source: 2020 Origin and Destination Survey, partially complete due to the COVID-19 pandemic and to be updated in 2023
Fast service is better than slow.

Virtually all passengers prefer to get places faster rather than slower. Service can be made faster by making it more direct, spacing stops appropriately, and where possible, implementing transit priority measures.

Stop spacing should balance speed and access.

When stops are spaced too far apart, riders are forced to walk long distances to where they want to go, and fewer riders may be willing to take the service if they cannot get on or off near their desired destination. However, when stops are spaced too closely together, service is slow, meaning it takes a lot longer for someone to be able to reach their destination without providing a significant increase in access. Typically, consistently spacing stops between 1,300 and 2,650 feet (approximately 1/4 to 1/2 mile) can help to provide a high level of access while maintaining speed. Appropriate stop spacing also varies by route type. For example, an Express route (part of the CapMetro Limited services) has a specific purpose to provide a fast, reliable service into Downtown at traditional commute times (morning and evening), therefore, the stops will be much farther apart than other route types.

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Average Stop Distance (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity</td>
<td></td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>As Needed</td>
</tr>
<tr>
<td>Rapid</td>
<td>2,650-4,000</td>
</tr>
<tr>
<td>Frequent</td>
<td>2,650-1,300</td>
</tr>
<tr>
<td>Local</td>
<td>~1,300</td>
</tr>
<tr>
<td>Limited</td>
<td>As Needed</td>
</tr>
<tr>
<td>Community</td>
<td>As Needed</td>
</tr>
</tbody>
</table>

Transit priority treatments can increase the speed of transit.

There are a variety of treatments that can be used to make transit more competitive with personal vehicles and help riders get to where they want to go quickly and reliably. Transit agencies across the country, including CapMetro, have implemented many of these treatments and tools, which vary in cost and offer a range of benefits to the speed and reliability of transit. Generally, these treatments help buses get around general traffic and congestion. Some of these treatments include:

- **Dedicated transit lanes**, including fully dedicated lanes, bus and right-turn-only lanes, peak-only bus lanes, and curbside lanes.
- **Intersection treatments**, including queue jumps, transit signal priority, and other signal adjustments.

High-ridership segments of routes that experience the most delay and variability in travel time should be prioritized for improvements to speed up buses and make them more reliable for riders. MetroRapid service is a form of Bus Rapid Transit and should also be considered for treatments that support enhancing travel time reliability and making the service more visible to riders.

These are a few of the ways CapMetro coordinates with other jurisdictions to speed up transit vehicles. One example of this coordination is in the coordination with the City of Austin on their ATX Transit Enhancement Toolkit, which outlines transit priority treatments in more detail.
ROUTE DESIGN GUIDELINES

“Good” routes can look different depending on their function within the network, but they all serve their purpose efficiently and reliably for riders. They should be relatively simple for both existing and new riders to understand and should be coordinated with the larger system of routes to facilitate easy transfers.

Routes can serve different purposes, such as maximizing ridership or increasing coverage.

Making changes to individual routes or a portion of a route is rarely done in isolation, and involves thorough analysis, evaluation and community input to identify any changes. Individual routes can also serve different purposes within a transit network. As discussed previously, some routes are designed to serve areas of high ridership potential while others focus more on providing service to a specific area or neighborhood. Most of CapMetro’s peer transit systems have a balance of these types of routes in their network.

Areas with a higher density of people and jobs and many destinations that are easily accessible within a short walking distance of each other are well-suited to providing simple and direct routes that can attract many riders. Routes in these areas usually run on more direct corridors, with fewer deviations or "branches", and they tend to have stops spaced farther apart. These characteristics mean that ridership-focused routes often have higher average speeds and experience less delay, making them more efficient. However, because they often run primarily on major arterial streets, riders may have to walk farther distances from their home or place of work to get to their bus stop.

Other areas are more spread out and have a lower concentration of people and jobs, but it is still important to find the most effective way to serve these areas with transit. Routes in these areas are often referred to as coverage-focused routes and are generally less direct, often traveling on more neighborhood roads to expand the geographic reach of the transit network. These routes have more stops, which typically means a shorter walk from homes and destinations. This type of route typically has a longer travel time and can require the customer to wait longer for the next bus due to its more stops along the route and less direct path. Generally, these routes can require a high amount of operator and vehicle resources, making them more costly to operate.

Even though the measures of success can be different for these distinct types of routes, the methods for making adjustments to help them meet their standards are often similar. The Service Changes & Evaluation section describes the process for evaluating routes based on different factors and common actions taken to make adjustments to help a route improve, such as seeing if the stops are closer together than expected or if there’s a way to improve speed along the route. CapMetro uses this knowledge to match the appropriate transit service with the demand for transit in a given area.

Simple routes are better than complex ones.

A simple transit route design and simple schedules will attract more riders than a complex transit system. For people to use transit, they must be able to understand it, and simpler services are easier for riders to rely on. Transit agencies typically try to keep their systems simple where possible to help ensure that riders can get where they want to go when they want to without frustration or problems. Overall, transit systems with simpler route design can more quickly attract new riders and are better able to serve occasional riders. When a more complex route is warranted, it should fit within the context of the surrounding network.
Routes should operate along a direct path.

Routes should be designed to operate as directly as possible to keep travel time lower while maintaining access to key destinations.

The fewer turns a route makes, the easier it is for riders to understand. Conversely, circuitous paths are disorienting and difficult to remember, which can impact the reliability of the route. CapMetro designs routes so that they do not deviate from the most direct path unless there is a compelling reason, such as to serve major activity centers or to provide coverage to areas with limited access.

Routes should be symmetrical and predictable.

Wherever possible, routes should operate along the same path in both directions to make it easy for riders to know how to get back to where they came from.

Due to one-way streets, such as in downtown Austin, it may be necessary to operate a route on two parallel streets. In such cases, efforts should be made to limit the distance between stop pairs.

Routes should have appropriate start and end points.

The ideal start and end of a route should be at a transit center or activity center. When not feasible, CapMetro starts and ends routes at terminals including charging facilities for buses or a key destination that can provide strong ridership to “anchor” the route, such as grocery stores. When this kind of location does not exist, the end of line should be selected based on safety and security, restroom availability for operators and the potential impacts on adjacent land uses.

There are a limited number of cases where a route might vary from this.

A route might take a different path for a few trips when one portion of the route has a much stronger demand for service than another or in the case of a major attraction that has limited hours. For example, Route 4 extends past its typical endpoint a few trips each day to serve Austin High School. This type of route deviation is called a “school tripper.”
Routes should be planned within the context of the network.

Transit service planning doesn’t happen in a vacuum. When changes are needed to a particular route or when a new service is being planned, the impact on other routes and the overall transit system should be assessed. Routes should complement other routes to provide coverage across the service area while maximizing ridership and avoiding duplicative service. CapMetro coordinates where routes go, how often the bus comes and how the schedules line up as necessary to create a smooth rider experience.

Services should be well coordinated.

Where different routes connect or operate along the same street, schedules should be coordinated to the greatest extent possible to provide short wait times between transfers.

Routes should be appropriately spaced.

Parallel routes operating closely together have the potential to compete for and confuse riders. Appropriate route spacing attempts to balance the trade off between how far someone needs to travel to reach transit service and the efficiency of the service. Where the walking environment is difficult to navigate, such as near high traffic streets or areas without comfortable, safe and connected sidewalks, asking someone to go farther to reach the service may deter them from riding. However, routes that are too close together can be an inefficient way to use limited resources, making it more difficult to provide better frequency and coverage to the service area.

Special conditions may exist that require routes to operate closer to one another, such as terrain, barriers, or the street network’s design. Routes of different service types may even overlap in some places to expand overall transit access in high-activity areas or corridors, such as the local underlying Route 1 that stops more frequently than the high-capacity MetroRapid 801 service that runs on many of the same streets with more limited stops.

Routes should be an appropriate length.

Routes should be an appropriate length to maximize ridership potential and minimize operational issues. Appropriate route lengths will vary based on context, but typically a route’s length influences its performance. For example, if a route is too long, traffic can cause a delay that builds along the route. This can impact the route’s reliability; it may show up at the stop too early or late and cause someone to miss their bus. A route that is too short may be difficult to schedule efficiently, making it difficult to give it an intuitive frequency (i.e. 15, 30, or 60 minutes). There are however additional factors that impact route lengths; currently, downtown Austin lacks space for vehicles to wait to start their next trip, which limits CapMetro from starting and ending routes downtown and may require lengthier alignments.

Service should be coordinated between modes.

Coordinating bus and rail services is important to maintaining a cohesive network that riders want to use. This typically involves coordinating schedules of bus routes that intersect with, or “feed,” rail lines, and placing the stops for these routes close to rail stations. Facilitating convenient connections between bus and rail services makes the network stronger and benefits passengers by improving travel times and reliability.

CapMetro currently has two rail connector routes that circulate neighborhoods surrounding stations along the Red Line, in addition to other frequent and local routes that connect to the train.
Predictable and reliable transit services are easier for people to use and can help attract new riders and improve the experience of current riders. Customers need to know when a service will be there, that they can transfer reliably to a connecting service, and that they won’t get stranded somewhere without a ride. When and how often a bus or train comes, and when the services start and stop throughout each day make up the service levels of a route. A good level of service is provided by a route that runs as early, late and as often as riders need it while still remaining productive and efficient. The following section defines the guidelines for schedules and the desirable service levels by type of transit.

Schedules should be predictable and easy to remember.

CapMetro designs schedules on repeating patterns, making them easier for people to remember. For this reason, routes that travel on consistent streets and at regular scheduled times are more successful than those that don’t. CapMetro aims to schedule frequencies on round numbers, such as 15, 30, or 60 minutes, so that they are consistent and easier to remember.

At CapMetro, a route’s frequency is often associated with its service type; Local service typically runs at 30 minutes, and Frequent routes run every 15 minutes. When a route’s frequency must differ from its assigned service type due to limited resources, schedulers will choose the closest possible clock-face headway. For example, CapMetro Local Route 30 runs at a 35-minute frequency, as opposed to a 32-minute or 36-minute frequency, to ensure riders can easily remember when their bus will arrive.

Helpful Definitions

**Span:** The number of hours in a day that revenue service is provided. Time starts when the first bus arrives at its first timepoint to when the last departs from its last timepoint.

**Frequency:** How often (in minutes) a bus passes by a bus stop during an hour.

**Schedule:** The schedule is how the span and frequency operate throughout the day. Most often, this lays out each trip and the expected time of service from the start of the line, at timepoints, and at the end of the line. A schedule helps riders plan when they would need to reach a stop in order to use transit service.
**Timepoints should be used to keep routes running on time without sacrificing the rider experience.**

Part of the route planning process involves determining which bus stops along a route are noted in the schedule as having a set departure time. Bus stops with these scheduled times are called timepoints. Timepoints are at existing stops along the route and help ensure buses remain evenly spaced and on schedule. Timepoints may also be used to communicate route schedules to the public. If a bus is running ahead of schedule, the driver will stop and wait at the designated timepoint before departing at the scheduled time.

Typically, timepoints are spaced every 8-12 minutes along the route. However, on local or community routes, timepoints can be spaced as close as every 4-6 minutes.

Timepoints are typically located at bus stops that:

- Serve a large number of riders
- Are near major intersections
- Are major transfer points
- Have a safe place and enough space for the bus to layover

On routes that share a path, timepoint locations are ideally the same for both routes along the shared stretch.

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**Communication about Timepoints is Important to the Community**

Survey respondents generally felt that timepoints did not have a negative impact on their trip planning, either because they planned ahead to arrive on schedule or they were not in a rush. There were some respondents who expressed frustration with timepoints during rush hour and suggested better route optimization to minimize the need for buses to wait at stops.

Whether respondents had neutral or negative responses to timepoints, there was a general desire for better communication of these timepoints and their impact. CapMetro is now working to implement timepoint announcements on their vehicles to make customers aware of scheduled stops and their purpose.

“A timepoint has not impacted me in a significant way. I like that they are trying to match the schedule as it is not only an issue when buses are late, but also when buses leave earlier than the scheduled time.”

“They’re a little annoying when they’re the stop immediately before my destination but I appreciate the commitment to the schedule because it would be chaos otherwise. And anyway, usually they aren’t too long.”

“I usually plan ahead for those, but it would be nice if they were announced more for routes I don’t take as often.”
STOP & STATION DESIGN GUIDELINES

The quality of transit facilities is important to the rider experience. See the CapMetro Transit Stop & Station Design Guidelines for more details on how CapMetro places stops and allocates different amenities across the city equitably and cost-effectively.

Stops and stations should be placed and designed to support safety, speed and access.

When designing bus stops or train stations, most transit agencies use strategies that support faster and more reliable transit service. Some of these include:

- Placing bus stops on the far-side of intersections to reduce conflict with turning drivers and minimize delays for bus operators to maneuver back into traffic
- Ensuring that stops or stations are not located too close together
- Implementing near-level, all door boarding and off board fare collection that speeds up the time it takes for passengers to get on or off vehicles when they are stopped
- Constructing longer bus stops at busier locations so more than one vehicle can stop at a time to load or unload passengers
- Considering the appropriate bus stop configuration for a specific location; in-lane bus stops are preferred and will be prioritized because they can reduce delay caused by vehicles needing to merge back into traffic, while bus pullouts will be considered in some cases based on built environment and traffic conditions

Amenities make transit more accessible, comfortable and convenient.

Time spent waiting for transit is part of a customer’s trip, and CapMetro strives to make this as comfortable as possible. Important amenities provided at many CapMetro transit stops and stations include, but are not limited to benches, route maps and schedules, lighting, shelters, trash and recycling bins.

CapMetro’s commitment to equity means uplifting and empowering riders who would benefit the most from improved transit accessibility and amenities. CapMetro recognizes the importance of allocating transit amenities equitably across the service area and prioritizing areas that have been historically underserved or lacking in quality infrastructure. Equity is a major metric that the agency considers when evaluating stops as part of its bus stop improvement program, along with ridership, proximity to key destinations, community input and other factors.

Accommodating accessibility of all transit users is also a key part of the design of CapMetro stops and stations. At a minimum, stops and stations are built to comply with ADA regulations. CapMetro also strives to ensure that transit facilities provide space for riders with mobility devices to maneuver and auditory and tactile information technology for riders who are visually impaired, so that all members of the community may use the transit system safely and independently. CapMetro also works with partner jurisdictions to improve adequate sidewalk and pedestrian crossing access to transit stops.
SERVICE STANDARDS

To ensure that CapMetro provides transit service that meets the needs of riders and follows the **Service Guidelines & Best Practices** identified above, the agency continuously compares its services to set performance standards. The **Service Standards** describe how to measure the success of CapMetro services, and when it might be warranted to take corrective actions to address any issues that arise.
The Service Standards are meant to be an input or consideration for decision-making that supports a data-driven process for tracking when a service is underperforming and action should be taken. When updating the standards, CapMetro reviewed recent historic data for how transit service has been performing, as well as several peer agency standards to ensure service performance measures are comparable against other transit systems of similar size and population.

The Service Standards are divided into two main sections:

- **Service Quality** includes metrics that keep transit service safe, comfortable, and convenient for riders.
- **Service Effectiveness** describes the metrics that track how well transit service is working, including its productivity, availability and cost to run.

The standards also describe actions that can be taken when a service is not meeting the expected level of performance. These actions fall under the following types of changes:

- **Reallocate**
  Resource adjustments that respond to overcrowding or reliability issues, such as increasing vehicles on a route or building transit priority infrastructure

- **Optimize**
  A change to the frequency, span, or route alignment of service to better match demand

- **Expand**
  Adding a new route to the network

- **Reduce**
  Removing a route

- **Adjust**
  Bus stop placement, configuration, or amenity change resulting from one of the changes above

The Service Change Process and how CapMetro decides to take action to address underperforming routes is discussed further in the following Service Changes & Evaluation section.
SERVICE QUALITY

CapMetro regularly evaluates its routes to ensure high quality service. Quantitative indicators such as those described in this section as well as qualitative information, like feedback from the community and operators, are used to evaluate how well service is meeting riders’ needs. The following metrics were developed based on industry standards and adjusted for each of the corresponding CapMetro service types.

Transit should be convenient and reliable for riders.

On-Time Performance

Travel time is one of the most important factors when evaluating service quality from a rider’s perspective. A rider’s trip starts before they get on the bus. It also includes the time it takes them to travel to the bus stop or rail station, the time spent waiting for the bus or train, and sometimes the time waiting to make a connection to another route. When buses or trains depart later than scheduled, this adds additional time to a trip. When a vehicle departs before scheduled, a rider may be forced to wait for the next one even if they have arrived on time. An unreliable or unpredictable transit service can be extremely frustrating for riders, making it difficult to use.

There are a variety of reasons why buses or trains will get off schedule from time to time, but there must be a balance between riders’ needs and the realities of operating in an environment with many factors that could delay operation. For a service to be considered “on time,” it should not depart early, as that element is usually within the control of CapMetro. Some services, such as High Capacity rail lines, have higher expectations for being considered on time because they typically operate in their own right-of-way and are therefore not generally impacted by general traffic conditions. These services have a smaller window of time for being considered late, and a higher percentage of trips should be within the on-time window, as compared to bus routes that share space with automobile traffic. The below percentages describe the expected amount of trips that depart within the set on-time window for that service type.

<table>
<thead>
<tr>
<th>Service Type</th>
<th>On-Time Window</th>
<th>On-Time Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>0-3 minutes</td>
<td>90%</td>
</tr>
<tr>
<td>MetroRapid</td>
<td>0-6 minutes</td>
<td>85%</td>
</tr>
<tr>
<td>Frequent</td>
<td>0-6 minutes</td>
<td>85%</td>
</tr>
<tr>
<td>Local</td>
<td>0-6 minutes</td>
<td>85%</td>
</tr>
<tr>
<td>Limited</td>
<td>0-6 minutes</td>
<td>85%</td>
</tr>
<tr>
<td>Community</td>
<td>0-6 minutes</td>
<td>85%</td>
</tr>
</tbody>
</table>

What can be done if the standard is not being met?

Routes with trips that are consistently leaving earlier or later than the on-time window should be examined to determine the reasons behind the issue. Some common issues include buses getting stuck in traffic, construction along the route and issues with the schedule, such as having too much or not enough slack in the schedule at timepoints. On-time issues should be prioritized for review during the service change evaluation based on the severity and longevity of the issue, or how far from the standard it is and how long the issue has been occurring.
Travel Time Reliability

Like on-time performance, the travel speed of a transit route has a direct impact on its usefulness and its operating cost; slower service requires more vehicles to deliver a given frequency. Maintaining similar average operating speeds to other modes of transportation ensures a competitive transit service that riders can rely on to meet daily needs.

Travel time standards determine scheduled speed, which is in turn used to build route schedules. When actual speeds do not meet the standard for scheduled speeds, routes will struggle to run on time. As discussed in the above Guidelines, transit speed can be slower when:

- Lots of riders are using the service: more people getting on and off the bus than normal can slow down transit and cause it to get behind schedule.
- High levels of traffic congestion: Sitting in traffic and at lights slows down service, which can cost more money in order to provide the same level of service over time as traffic conditions worsen.

A travel time reliability ratio compares the travel time variability, or how different the travel time across a section of a route can be at a given time of any day, relative to the minimum variability seen. Travel time variability is summarized at a segment level, and is useful for understanding how travel times change throughout the day in different areas of the transit system. This is a way to measure the reliability of travel time when taking transit.

A high travel time reliability ratio indicates that a segment has very different travel times throughout the day, making service less predictable for riders. CapMetro reviews route segments with a high travel time reliability ratio to identify areas where intervention may be warranted to improve transit service quality.

What can be done if issues are identified?

Because some routes partly overlap, varying amounts of service are provided along their different segments. Because of this, scheduled speed should be evaluated for each unique route segment and not at the route level. However, riders expect a certain service quality, especially for High Capacity routes, so it is especially important to make these services competitive in speed. Rapid routes should be prioritized for improvements to speed up buses to make the service visible, emphasizing transit on key city corridors and ensuring that the service remains reliable for riders.

There are many ways to speed up transit which vary in cost and effectiveness. The ATX Transit Enhancement Toolkit outlines many options that can be explored to help a route when it is slow, including intersection treatments such as a queue jump or transit signal priority, moving near-side stops to the far-side of the intersection or adding transit priority infrastructure like contraflow bus lanes or curbside lanes. CapMetro will also coordinate with other jurisdictions that advance similar transit-supportive infrastructure efforts.

Local jurisdictions are an important partner in transit priority infrastructure.

As the Austin region experiences population and employment growth, traffic congestion increases as well. This causes bus routes to become slower, requiring more trips and vehicles to meet the same level of service for riders. Over time, these issues can become detrimental to the health of the route, and make it more costly to run. CapMetro and the jurisdictions within its service area are partners and are working together to implement solutions. For example, the City of Austin and CapMetro are collaborating to determine the areas with transit speed and reliability issues to prioritize the path forward for larger capital projects to support transit priority. Please see the ATX Transit Enhancements Report for more information.
Frequency and Span

Frequency describes how often the bus comes, and span describes the hours each day that the service is running. Service spans and frequencies should be matched to the needs of the community. More service will be provided where there is a high number of transit customers (i.e., ridership) and less service where there is a lower number of transit customers to use resources efficiently. As the frequency of a route decreases it becomes more difficult for a customer to plan around, so all CapMetro fixed route service maintains at least a 60-minute frequency.

The service spans and frequencies listed here are typical levels for each service type. More or less service in terms of span or frequency may be warranted on a case-by-case basis. Because riders often use more than one route to complete a trip, it is beneficial to standardize spans and frequencies among routes of the same type.

High Capacity Routes

<table>
<thead>
<tr>
<th>Rapid</th>
<th>Span</th>
<th>Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday</td>
<td>5:00 AM to 12:30 AM</td>
<td>15</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:00 AM to 12:00 AM</td>
<td>15</td>
</tr>
<tr>
<td>Sunday</td>
<td>6:00 AM to 11:30 PM</td>
<td>15</td>
</tr>
</tbody>
</table>

Commuter Rail

<table>
<thead>
<tr>
<th>Span</th>
<th>Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday 6:00 AM to 8:30 PM</td>
<td>30</td>
</tr>
<tr>
<td>Saturday 10:00 AM to 1:00 AM</td>
<td>35</td>
</tr>
</tbody>
</table>

Frequent Routes

<table>
<thead>
<tr>
<th>Frequent</th>
<th>Span</th>
<th>Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday</td>
<td>5:00 AM to 12:00 AM</td>
<td>30</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:00 AM to 12:00 AM</td>
<td>30</td>
</tr>
<tr>
<td>Sunday</td>
<td>6:00 AM to 11:00 PM</td>
<td>30</td>
</tr>
</tbody>
</table>
### Local Routes

<table>
<thead>
<tr>
<th>Local</th>
<th>Span</th>
<th>Frequency* (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday</td>
<td>5:00 AM to 11:00 AM</td>
<td>30</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:00 AM to 11:00 AM</td>
<td>30</td>
</tr>
<tr>
<td>Sunday</td>
<td>6:00 AM to 11:00 PM</td>
<td>30</td>
</tr>
</tbody>
</table>

*Typical frequencies – some Local routes run at lower frequencies at different times of day based on demand

### Limited Routes

<table>
<thead>
<tr>
<th>Limited</th>
<th>Span*</th>
<th>Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday</td>
<td>6:00 AM to 9:00 AM 3:00 PM to 7:00 PM</td>
<td>-</td>
</tr>
</tbody>
</table>

*Minimum span – Some Limited routes operate throughout the day

### Community Routes

<table>
<thead>
<tr>
<th>University Shuttles</th>
<th>Span</th>
<th>Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday</td>
<td>7:00 AM to 11:30 PM</td>
<td>-</td>
</tr>
<tr>
<td>Sunday</td>
<td>3:00 PM to 10:00 PM</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Night Owl</th>
<th>Span</th>
<th>Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Early AM</td>
</tr>
<tr>
<td>Weekday</td>
<td>12:00 AM to 3:30 AM</td>
<td>-</td>
</tr>
<tr>
<td>Saturday</td>
<td>12:00 AM to 3:30 AM</td>
<td>-</td>
</tr>
</tbody>
</table>
Taking transit should be a comfortable experience.

Overcrowding and Load Maximums

Maintaining a reasonable passenger load on vehicles is another goal that helps CapMetro provide high-quality and comfortable service that meets the needs of riders. Typically, riders can expect to have a place to sit when they get on a bus or train, but that is not always possible. During peak periods in most large urban areas, there are bus and rail lines that require some riders to stand for at least some portion of the trip. If a rider is able and the travel distance is not too long, standing on transit vehicles is considered an acceptable part of using the service. Some routes and riders do travel longer distances; for commuter services where longer distances are expected, the standard is that loads should not normally require a rider to stand.

A route exceeds overcrowding standards when average capacity exceeds the number of people in the table below, or when standing loads last for 20 minutes or more on a trip.

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Peak Max Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity</td>
<td></td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>212 people</td>
</tr>
<tr>
<td>MetroRapid 60' bus</td>
<td>110 people</td>
</tr>
<tr>
<td>MetroRapid 40' bus</td>
<td>80 people</td>
</tr>
<tr>
<td>Frequent</td>
<td></td>
</tr>
<tr>
<td>60' bus</td>
<td>110 people</td>
</tr>
<tr>
<td>40' bus</td>
<td>80 people</td>
</tr>
<tr>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>40' bus</td>
<td>80 people</td>
</tr>
<tr>
<td>35' bus</td>
<td>60 people</td>
</tr>
<tr>
<td>Limited and Community</td>
<td></td>
</tr>
<tr>
<td>40' bus</td>
<td>80 people</td>
</tr>
<tr>
<td>35' bus</td>
<td>60 people</td>
</tr>
<tr>
<td>Over the Road Coach</td>
<td>57 people</td>
</tr>
</tbody>
</table>

What can be done if the standard is not being met?

Consistent overcrowding on a transit vehicle may indicate the need for improvements to the frequency of the service or an increase in the capacity of the vehicles used to run the service. When a trip routinely exceeds the maximum rider or load threshold, adjustments should be studied and implemented as part of the service change process. Shorter-term measures include assigning larger vehicles to the route where possible or the addition of “Run as Directed” (RAD) buses or extra trains for portions of the route to provide temporary additional capacity.

Longer-term adjustments include adding vehicles to the service and increasing service frequency for all or a portion of it. Short-turning trips for buses, or “trippers,” provide additional bus service on a specific segment of a route with capacity issues. Short-turn trains are used for peak service and are scheduled to serve only a segment of the line. Trippers and short-turn trains should include clear communication about start and end points to avoid any potential customer confusion.
Transit Amenities

The quality of transit facilities is important to the rider experience. Bus stops and stations should be kept clean, well-lit and easy to identify with clear signage and recognizable colors and features. This also enhances the visibility of the transit system and can reinforce the service as a high-quality resource within the community. Information on routes and their schedules and destinations will be clearly posted at any stop.

Based on factors like ridership, available space and the surrounding environment, stops will have additional amenities including seating and shelters that provide protection from rain, wind, and sun. Trash cans, landscaping, art installations and wayfinding features may also be added to enhance the space. Wherever possible, stops and stations will be located in places with more pedestrian traffic so they are easy to find and access. See the CapMetro Transit Stop & Station Design Guidelines for more details on how CapMetro places stops and allocates different amenities across the city equitably and cost-effectively.

Accessibility

The setting around stops is also vital to the safety and ease of use of transit riders. Facilities must be fully accessible by riders regardless of age or ability. The waiting area should be an appropriate size to accommodate passengers with enough room for those using mobility aids such as a wheelchair to board. Wayfinding at or around bus stops is also critical for riders who are blind or have limited sight. This includes using special bus stop poles and signage as well as truncated domes or other tactile warnings in the pavement. Bus stops will be located at or near a clear place to cross the street wherever possible so that riders can access or depart from them safely. Sidewalk availability is also important near transit facilities, as most riders start and end transit trips on foot. Nearby bicycle and scooter parking can also facilitate flexible, multimodal first- and last-mile connections.

People should feel safe using transit.

Transit moves people, but it’s important for it to be safe, comfortable, and convenient to use as well. In terms of vehicle safety, taking the bus or train is statistically one of the safest modes of transportation. Prioritizing connectivity and accessibility in the design of transit facilities and their surrounding infrastructure can also enhance the physical safety of riders throughout the stages of their trip. Lighting and visibility are considered as part of the design of amenities and placement of stops. Determined minimum setbacks from the curb are also important to protecting pedestrians and waiting passengers from vehicle traffic and may be supplemented by bollards or other barriers.

Additionally, CapMetro’s public safety program combines mental health-first community intervention and outreach techniques with customer support and traditional law enforcement presence, comprising a range of safety resources that can be accessed based on the needs of given situations.

Incidents of Service Interruption

While some service interruptions are outside of CapMetro’s control, many mechanical failures can be prevented through ensuring vehicles are kept in a good state of repair. Vehicles and transit equipment are regularly rehabilitated or replaced based on their age in terms of years and/or mileage.

Sometimes buses experience unexpected mechanical failures or incidents while in service that require a road call, which can result in a bus being towed back to the yard for maintenance. There are a variety of other reasons a service might experience an interruption, including a crash or collision, a passenger becoming ill on the bus, electronic issues, mechanical issues, or security needs requiring action or a change in vehicle. Because service interruptions can impact the passenger experience, they are regularly monitored and evaluated by the Operations team so they can be addressed as needed.
SERVICE EFFECTIVENESS

Service effectiveness measures provide insight into how many people can benefit from using CapMetro service compared to how much that service costs to operate and maintain. The following metrics help determine how best to maximize high-quality service for many people using available resources in a responsible way.

CapMetro should be good stewards of their limited resources.

Productivity

The productivity of a route can be measured in several ways. CapMetro analyzes productivity based on ridership and hours of service, or revenue hours:

**Riders per revenue hour** – the number of boardings divided by the total number of hours the vehicles on a route are in service

These measures describe how many people are using CapMetro routes compared to how much it costs to run them. Using ratios allows CapMetro to make comparisons between unique routes and understand which routes are using resources most effectively over time.

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Productivity Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity</td>
<td></td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>N/A</td>
</tr>
<tr>
<td>MetroRapid</td>
<td>20 riders/hour</td>
</tr>
<tr>
<td>Frequent</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>Express</td>
<td>6 riders/hour</td>
</tr>
<tr>
<td>Flyer</td>
<td>6 riders/hour</td>
</tr>
<tr>
<td>Rail Connector</td>
<td>6 riders/hour</td>
</tr>
<tr>
<td>Community</td>
<td>4 riders/hour</td>
</tr>
</tbody>
</table>

What can be done if the standard is not being met?

Routes are more productive when their level of service matches the level of demand for transit. If a route continually shows low productivity, that may be a sign that the route should be evaluated for improvements or reallocation of its resources. If a route is highly productive, it might warrant a higher frequency to continue to meet demand.

Running fewer vehicles on the route at a lower frequency can decrease the cost of a less productive route and allow those resources to be reallocated to another route that is experiencing overcrowding or has the demand to support more frequent trips. Low productivity routes may also serve lower demand areas or lack strong anchoring destinations. Routes that are less direct and more circuitous may have to travel farther while attracting fewer riders, making them less productive as well.
Cost Effectiveness

Several factors influence the cost to run transit service, including the number of vehicles, hours of operation, operator wages, vehicle maintenance and repairs, and fuel. Measuring a route’s operating cost per rider shows how many people are using it compared to how much it costs to run. In general, the ratio of riders to operating costs improves when transit service is more efficient, because it can carry people farther and faster in the same amount of time. However, the variables that impact the cost to operate CapMetro service have been fluctuating in recent years, with the cost to run service going up and ridership down.

CapMetro is also in the process of purchasing electric vehicles and constructing charging stations needed for an electric fleet, which impacts the cost to operate service. Due to this changing environment, CapMetro reviews costs and sets a reasonable threshold of cost per rider prior to each service change in order to assess cost feasibility. This ensures that the latest data and operating environment factors are always taken into account.

What can be done if the standard is not being met?

Similar to productivity measures, cost effectiveness is maximized when transit service matches patterns of demand. Cost-saving measures often take the form of service reductions; decreasing the number of trips a route makes each day can reduce costs, but this also requires reducing its frequency, span or both. Alternatively, reducing deviations and making routes more direct can also help them run more efficiently.

Increasing speed and reliability of transit routes also makes them more cost effective. Efforts to reduce delays by implementing transit priority treatments can also improve efficiency, although many of these methods require an upfront investment and cooperation with other agencies like the City of Austin. Ensuring a route’s stops are spaced appropriately rather than too close together also reduces delay caused when vehicles stop.

Transit resources should be allocated equitably and accurately.

Service Availability

CapMetro measures service availability to identify the parts of the service area that have enough population density to support transit service, and to determine how well the transit service provided in those areas is distributed.

CapMetro’s service availability standard defines the transit-supportive service area as locations within the CapMetro service area with at least 16 people per acre (10,240 people/sq mile). The service availability standard measures the total number of residents in the transit-supportive service area that can access transit stops within a 5 minute walk or roll (1/4 mile). The target indicates that 95% of residents living within a transit-supportive area should have access to at least one transit stop within .25 miles of their residence.

<table>
<thead>
<tr>
<th>Service Area Definition</th>
<th>Density Threshold</th>
<th>Walk/Roll Distance from Transit Stop or Station</th>
<th>Target Percent of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit-Supportive Area</td>
<td>16 people/acre (10,240 people/sq mi)</td>
<td>.25 miles</td>
<td>95%</td>
</tr>
</tbody>
</table>
**What can be done if the standard is not being met?**

As discussed in the System Design Guidelines, land use and transit are fundamentally connected and transit routes are more efficient when they serve areas where more people live and work.

There are two main factors that can influence service availability findings:

1. An increase or decrease in transit coverage (e.g., removing a transit stop or route)
2. An increase or decrease in population density (e.g., more people moving into or out of an area)

Typically, CapMetro reviews the provision of transit service in the service area by conducting what is often referred to as a market analysis. This analysis is completed during a service plan to determine if the transit service being provided matches the transit demand. During this process, CapMetro reviews opportunities to fill gaps where additional service is needed or where transit stops and stations are too far apart or close together. Solutions that address these issues can impact service availability results.

Although calculating service availability is closely tied to population density, the factors that influence population density and housing supply in the service area occur over the longer term and should be looked at comprehensively. CapMetro has been involved in planning for Equitable Transit Oriented Development by advocating for mixed-use, affordable development near transit and supporting zoning that permits this type of land use, and will continue to collaborate with jurisdictions to encourage transit-supportive development in the service area.

**Vehicle Assignment**

Vehicle assignment refers to the process by which transit vehicles are allocated to routes throughout the CapMetro network. Several factors are considered when determining the type of vehicle most appropriate for a route, including:

- **Service Type** – Generally, a fixed route bus service will require a 40’ or 60’ bus, while Commuter Rail routes require train cars known as diesel multiple units (DMUs). However, there are occasionally exceptions to this rule to meet community or operational needs. For example, express routes require a 45’ Over the Road Coach (ORC). These vehicle types offer seating more suited for long distance travel.

- **Ridership and Vehicle Capacity** – Vehicle assignments are typically determined based on Automatic Passenger Counter (APC) data in CapMetro’s scheduling software. The software ensures that vehicles that are the right size are available based on ridership data and any customer or operator feedback about crowded buses. For example, low ridership routes may be assigned a 40’ bus whereas high ridership routes may be assigned a 60’ bus.

- **Compliance with Grant Awards** – CapMetro is a proud recipient of discretionary federal grant funding, and as a result, must align with what was outlined in the original grant application. For example, current MetroRapid routes require specialized branding, and some future routes may require electric vehicles based on federal grant funding received.
<table>
<thead>
<tr>
<th>Service Type</th>
<th>Vehicle Type</th>
<th>Appropriate Assignment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity</td>
<td>Commuter Rail DMU</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>MetroRapid 60’ or 40’ bus</td>
<td>80%</td>
</tr>
<tr>
<td>Frequent</td>
<td>60’ or 40’ bus</td>
<td>80%</td>
</tr>
<tr>
<td>Local</td>
<td>60’ or 40’ bus</td>
<td>80%</td>
</tr>
<tr>
<td>Limited</td>
<td>Express 45’ Over the Road Coach*</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Flyer &amp; Rail Connector 60’ or 40’ bus</td>
<td>80%</td>
</tr>
<tr>
<td>Community</td>
<td>60’ or 40’ bus</td>
<td>80%</td>
</tr>
</tbody>
</table>

*These vehicles offer seating more suited for long distance travel. ORCs cannot be used for interlining due to their size.

What can be done if the standard is not being met?
Vehicle assignment accuracy can be impacted by vehicle and operator availability. If vehicle allocation becomes a concern, CapMetro may hire additional operator staff or procure additional vehicles as budget constraints allow.

SERVICE MONITORING
CapMetro keeps track of several measures that are required by FTA Circular 4702.1B Title VI Requirements and Guidelines and are reported to FTA every three years. Reporting these standards involves analysis that ensures that CapMetro’s resources are distributed evenly and equitably throughout the region. The standards that are reported for FTA service monitoring include:

- On-Time Performance – Are transit vehicles departing from timepoints on time?
- Vehicle Frequency – How often does a vehicle pass by a stop or station during an hour?
- Vehicle Load – What is the ratio of passengers to total seated capacity?
- Service Availability – How much of the service area has bus stops within walking distance?
- Transit Amenities Policy – How are bus stop and station amenities distributed?
- Vehicle Assignment Policy – How are vehicles assigned to routes?

More details on the FTA Title VI Service Monitoring Process can be found in the Title VI Monitoring Fact Sheet.
SERVICE CHANGES & EVALUATION

This section overviews the process through which CapMetro makes changes to its service and the evaluation and analysis that helps inform those changes.
SERVICE CHANGES

CapMetro is continuously assessing service performance and feedback to make improvements for customers and the community. There are several recurring planning efforts undertaken by staff and approved by the CapMetro Board of Directors, each at different points in time and with varying levels of detail.

Every 5-10 years: Service Plan* – Entails analysis of demographic, land use, development, and transit ridership patterns across the CapMetro service area and evaluation of CapMetro services as a holistic network. Explores issues and opportunities for potentially larger changes to routes or groups of routes based on bigger changes happening over a longer time period. The last update was completed in 2017 with the next update effort beginning in 2023.

Every 5 years: Update Service Standards & Guidelines* – The previous update was completed in 2015.

Every 5 years: Origin & Destination Study – Involves surveying riders on vehicles to collect information on how and why people are using CapMetro services. Findings from this study help guide service planning and proposed changes. The most recent survey was completed in Summer 2023.

Every 3 years: Service Monitoring – federally required reporting on service performance. See the Title VI Monitoring Fact Sheet for more information.

As needed: Stop and Station Placement Evaluation – See CapMetro Transit Stop & Station Design Guidelines document for information on the process.

Multiple times per year: Service Changes* & Evaluation – Key Performance Indicator (KPI) evaluation that determines what service changes are proposed and implemented at designated Service Change periods three times a year.

Multiple times per year: Special Events – Austin City Limits, SXSW and Holidays require careful planning for changes in service. There are several specific staff committees dedicated to this work at CapMetro.

*Approved by CapMetro Board of Directors

Because the Austin region is growing so rapidly, the landscape of where people live, work, and want to go is changing often. New developments, increased cost of living, shifting residential patterns, emerging employment hubs, changing traffic conditions, and infrastructure enhancements are all factors that can impact CapMetro service. Staff consider these changes when reviewing route performance and may make adjustments to routes so that they best serve the community.

CapMetro is continuously monitoring data and customer reports to ensure that service is running smoothly.

Outside of these specific processes outlined in this document, CapMetro also has specific teams that meet biweekly throughout the year to closely monitor the transit service. One team is called the Continuous Customer Experience Improvement Team, which reviews metrics such as On-Time Performance issues and Overcrowding on a regular and frequent basis.
Underperforming Service and When to Take Action

As discussed in the Service Standards, there are multiple actions that can be taken when a service is not meeting the standard. These actions fall under the following types of changes:

- **Reallocate**: Resource adjustments that respond to overcrowding or reliability issues, such as increasing vehicles on a route or building transit priority infrastructure
- **Optimize**: A change to the frequency, span, or route alignment of service to better match demand
- **Expand**: Adding a new route
- **Reduce**: Removing a route
- **Adjust**: Bus stop placement, configuration, or amenity change resulting from one of the changes above

The following are examples of how CapMetro might respond to the issue of an underperforming route:

- Targeted marketing;
- Adjusting frequency or service span;
- Rerouting;
- Rescheduling;
- Eliminating or rerouting unproductive route segments;
- Consolidation of routes or portions of routes;
- Replacement with Pickup service; and
- Elimination of the route when none of the above actions are viable or prove successful.

If service elimination is under consideration, careful investigation will be done to maintain service for populations who rely on transit (people without a car, seniors and youth, BIPOC populations, riders with disabilities and low-income populations). For under-performing routes identified by CapMetro as a minority route, or a service where more than a third of the route’s alignment travels through minority block groups, an additional 12 months should be allotted to meet targets after a service change has been made.

Helpful Definitions

- **Minority Route**: Identified when more than 1/3 of a route’s revenue miles are contiguous with minority block group(s) in the route’s served area
- **Minority Block Group**: A Census block group with BIOPC or low-income population percentages that are higher than the CapMetro service area average
- **Served Area of a Route**: Area within a quarter mile buffer around a non-frequent route’s stops or a half-mile buffer around a frequent route’s stops

Evaluating New Services

Within the first year of implementation of a major change, services may be adjusted to help the service run more efficiently but should not be modified in significant ways. Riders often take some time to adjust to the new and changed services and it takes time for that market to develop. Typically, transit agencies will allow for some form of a “ramping up” period to allow for routes to be given time to
mature’ before their performance is evaluated against the same standards as mature routes. During this period, performance of new or changed service will be observed but not altered, because no service will be viewed by the public as dependable if it is too frequently changed.

After the first year, CapMetro expects that a service will meet 60% of the minimum thresholds described in the Service Standards. After 24 months of a service being introduced or since the last major change, a route should have a mature market and be expected to meet the standards. For a route that is underperforming but within 10% of its target and has shown growth over the previous 6 months, the service should be given six additional months to meet targets before a service change is studied.

Changing Service from Fixed Route to Pickup

When evaluating route performance in a certain area, one option is to consider creating a Pickup demand-responsive service. There are costs associated with creating a new Pickup zone or expanding an existing one. However, where a route(s) fails to meet performance standards, converting it to a Pickup zone could be a feasible solution.

Should conversion result in overall cost savings to CapMetro, savings may be re-invested in fixed-route service improvements, such as frequency or span increases, in other parts of the network.

Most Common Reasons for Service Changes

• Results from the evaluation of services that need improvements or corrective actions in order to meet the service standards
• Input from CapMetro employees, particularly operators who are most familiar with route issues and the public
• Service Planning staff recommendations to explore better operating alternatives

Other common reasons include:

• Providing improved service to riders that heavily rely on transit (low-income populations, people with disabilities, people of color)
• Seasonal school schedules (University of Texas, Austin Community College, etc.)
• Requests from the public, especially similar requests from multiple riders
• Requests from community institutions such as employers, educational and medical facilities, social service providers or developers
• Regular reviews of the effectiveness and quality of service that identify the need for a service change
• New common destinations, developments or streets that create transit demand

Responding to Requests for Service Changes

CapMetro frequently receives requests to create new services or bring back old services. Given the limited funding for putting transit service out on the street, it is very difficult for CapMetro to act upon and implement every request. CapMetro aims to provide a high quality, efficient and useful transit service, while balancing the needs of the residents in the service area and being good stewards of taxpayer dollars. These Service Standards & Guidelines provide a basis from which to review service requests received and to evaluate what can be done given the amount of funding available.
SERVICE CHANGE PROCESS

Service changes provide an opportunity to modify CapMetro service to better suit riders’ needs. They can encompass changes to route alignments and schedules as well as physical amenities like bus stops and other facilities. Service changes occur three times per year: in January, June, and August. This schedule keeps changes predictable for both riders and operators and coincides with academic calendars, although extenuating circumstances may create the need for adjustments at other times.

The service change process allows CapMetro to adjust existing services, implement new services, and if necessary, realign, consolidate, or discontinue consistently unproductive route segments or scheduled trips. Service changes are important to ensure that CapMetro routes are doing what they need to do to meet the community’s needs.

A service change is not an individual change in bus stop placement or configuration, which may occur as needed throughout the year. More information about this process can be found in the Stop and Station Design Guidelines document.

Service Change Process

* Step requires data analysis

Service Change Timeline

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* Indicates a service change event.
Identify the Issues

Service evaluation is an opportunity to review issues and opportunities for CapMetro routes, which are informed by the following factors:

Review Community Feedback – CapMetro begins the service change process by reviewing information to understand what, if any, routes are not performing as expected, and who is being impacted by underperforming routes.

Staff across departments are collecting constant feedback from riders and operators, which is documented and used to identify issues and opportunities for individual and groups of routes throughout the year. Planning staff prioritize comments from vulnerable communities in the Austin area, such as low-income residents, seniors, individuals with disabilities, zero-car households, youth, and people of color.

Riders who give comments to customer service, attend board meetings, and participate in outreach activities bring valuable insight to the service planning process from the perspective of those who use services every day. Operators who have day-to-day experience with CapMetro routes also provide suggestions to help service run more efficiently. Feedback from these sources as well as CapMetro leadership is documented and considered when planning staff evaluates a route for potential improvements.

Evaluate New Streets & Key Destinations – The service evaluation process is also an opportunity for CapMetro to adjust service based on changes within the environment. Streets that are built or improved may provide a chance to straighten a route’s alignment or to have it run closer to an important destination.

New developments or key destinations such as a new medical clinic, affordable housing development, grocery store, or retail center may also warrant adjustments to nearby service. Long-term construction efforts can also require realignments or schedule changes to minimize impact to the customer experience.

Analyze KPIs – Many of the KPIs described in the Service Standards are data inputs that can show when a route may need to be adjusted so it is more reliable or effective. As part of the service change process, CapMetro staff evaluate the performance of existing routes by examining KPIs and comparing route performance to the Service Standards described in the previous chapter. These serve as benchmarks for understanding how far off a route’s performance may be from what is expected and define how expectations often vary across different route types, which may have different thresholds that are appropriate to the need that type of route serves.

The primary KPIs used for this part of a service evaluation include:

- **On-Time Performance** – How often does the bus or train depart on schedule?
- **Travel Time Reliability** – How fast is the bus service compared to what is expected?
- **Overcrowding** – How much room is there for passengers on a vehicle? Do vehicles have to skip stops because they’re full?
- **Productivity** – How many people ride the bus or train per hour/mile it’s running?

While all service KPIs are tracked throughout the year, these key measures are the first ones examined at the beginning of the service change process because their variation can clearly point to routes that might be performing unexpectedly or need additional resources or changes.
Deeper Dive

Once staff identifies routes that are not meeting minimum standards, they will conduct further study to understand the underlying cause and significance of the issue. Analysis at this stage aims to understand where the problem is, how far off it is from the standard, and how long it has been persisting. Data inputs such as On-Time Performance, Travel Time Reliability, Overcrowding, Productivity, Cost Effectiveness, Passenger Hours of Delay may be reviewed for specific segments, stops, and times of day.

Ridership, on-time performance, and vehicle capacity data for specific segments or stops along a route may be used to understand the geographic scope of an issue. Variance across different times of day may also show different needs at peak periods. Performance and cost data from recent evaluations may also be used to compare performance over time to understand when the problem began or whether it has a seasonal cause.

Develop Proposals

Findings from the service evaluation are used to develop a proposal describing prospective changes and their reasoning. Suggested changes may include adjustments to a route’s schedule, alignment, or the schedule or alignment of an adjacent route. Changes are informed by the analysis done during the service evaluation, as well as answers to questions like the following:

- Does the change require allocating more vehicles to a route?
- Would the change duplicate other service?
- Is the change feasible? (e.g., is there enough room for the bus to make a required turn or park during a layover?)
- Does the change require operating outside the CapMetro service area?

These considerations help CapMetro staff weigh the prospective changes in the context of available resources. The resulting proposal(s) documents these changes, how they would be implemented, and their justification.

Evaluate Proposals

After drafting a service change proposal or multiple proposal options, staff completes three additional analyses to verify the intended changes will be beneficial to the community.

**Trip Pattern Data** – Does the proposed change improve a section of a route that has high ridership activity or connects key origins and destinations? Would it add service in an area with many potential riders?

**Target Transit Rider Equity Analysis** – Would the proposed change impact service on a section of the route used by a high proportion of BIPOC, limited-English speaking, older adults, people with disabilities or low-income riders?

**Cost Feasibility** – How much money is available to make the proposed change? What is the cost of the proposed change in terms of budget, available staff and vehicles?

Once the proposal or proposals have been examined through these lenses and finalized, they can move through the engagement process.
Compliance with Title VI Analysis for Major Service Changes

All service change proposals undergo the above analysis and review before they are finalized. However, some changes have a larger impact on the community than others and require an additional element of analysis to meet FTA guidelines. The Service Equity Analysis is an additional analysis defined in the CapMetro Major Change, Disparate Impact, and Disproportionate Burden Title VI policy and is meant to ensure that members of marginalized populations are not subject to disparate impacts or disproportionate burdens because of a potential CapMetro service change.

A major service change requiring a Service Equity Analysis is one that meets one of the following criteria:

- The establishment of new fixed-route bus route
- The elimination of any fixed-route bus or rail route in its entirety
- A geographic change on a given transit route of 25% or more of its annual revenue miles
- A change of 25% or greater in the number of annual revenue hours provided; or
- Six months prior to the opening of any new fixed-guideway project (e.g. BRT line or rail line), regardless of whether or not the amount of service being changed meets the requirements above

A major change is not:

- Temporary additions to service lasting less than 12 months
- Route renumbering with no underlying change
- Schedule or service adjustments required by a third party that operates or controls the same right-of-way (such as road closure)
- New fixed-route bus or rail “Break in period” prior to the commencement of revenue service, lasting less than 12 months
- Emergency service adjustments associated with weather or other emergency conditions
- Operations that result from circumstances beyond the control of Capital Metro (such as construction)

The service equity analysis is completed by comparing the existing service with the proposed new service and examining how much change would occur. The analysis then identifies how much of these changes would be experienced by BIPOC riders compared to non-minority riders:

- The adverse impacts experienced by minority riders is expected to be greater than 2% when compared to the adverse impacts experienced by non-minority populations
- The benefits associated with service changes accrue to non-minority populations greater than 2% when compared to minority populations

If the analysis results in either of the above instances of disparate impact, the service change proposal will be revised, or mitigation measures will be determined and included as part of the proposal that moves forward.

The results of any Title VI Service Equity Analyses will be presented to the Board along with the additional data analysis and customer feedback contained in all service change proposals.

Note: The Title VI analysis that is conducted during a service change process is different from FTA Title VI Service Monitoring. See Title VI Monitoring Fact Sheet for more details on that process.
Conduct Outreach

Before finalizing a service change, proposals are vetted through several outreach efforts. The Customer Service Advisory Committee (CSAC) and the Access Advisory Committee, both of which are comprised of community members appointed by the CapMetro Board of Directors, are presented with all service change proposals and their underlying analysis, justification and expected impacts.

Other potential outreach efforts include informing Neighborhood Associations, who may be invited to public meetings to discuss the proposed changes. Presentations to elected officials and governing bodies of partner jurisdictions are available when requested so they can answer questions that may arise from constituents. One-on-one presentations can be scheduled to various elected officials who represent the neighborhoods to explain the service changes.

If the outreach process brings forward any changes, proposals will be revised by planning staff, who will conduct the same evaluation analysis described above. This stage of the process can be iterative, with additional adjustments to the proposed changes made as new information or perspectives are considered. Once the proposed service change is finalized, it is presented to the CapMetro Board of Directors for approval.

Implement Changes

There are many steps to implementing service changes. First, CapMetro will ensure that the changes are understood by existing customers by conducting at-stop or on-board outreach at high-volume stops near the neighborhoods and transfer stations impacted. All marketing materials for the impacted services will also be updated. Online engagement, at-stop signage, and targeted messaging through the CapMetro App as well as on-bus announcements, mailers, and social media can be used to inform riders of the upcoming service changes.

CapMetro staff is also responsible for implementing the behind-the-scenes logistics that are required when a route changes. Updated schedule information is finalized so that the new or changed service integrates with the rest of the network seamlessly, and vehicle operators are trained so that they can answer any questions from customers.
GLOSSARY

Public Transit or Public Transportation: A transportation system that is available for use by the general public that moves groups of people. As opposed to a private vehicle that generally carries fewer people and has limited access.

Transit Service: A system or network that supplies public transportation in the form of rides to and from different locations provided by a transit agency.

Service Area: The area served by CapMetro transit. This includes cities and communities that have authorized a 1-cent sales tax to fund transit or an in-lieu partnership agreement. The CapMetro service area includes Austin, Jonestown, Lago Vista, Leander, Manor, Point Venture, San Leanna and parts of Travis and Williamson Counties.

Fixed Route: A transit route with a fixed schedule and designated stops for picking up and dropping off riders.

Service Types: Groups or categories of similar types of transit services according to their form or function used to manage and monitor service effectively. For Capital Metro this includes High Capacity, Frequent, Local, Community, Limited and more.

Transit Stop or Station: A location marked with site specific signs, indicating where buses or trains will stop to pick up and drop off riders at designated times.

Stop and Station Types: Groups or categories of transit stops or stations according to their characteristics including number of average daily riders and the service types that use the stop, i.e. MetroRapid.

Stop and Station Amenities: Equipment to improve the experience of a rider when they reach a transit stop and wait for the bus or train. Items like shelter, seating, lighting, waste receptacles and more can improve the comfort, accessibility and ability for riders to use the transit system. Guidance and descriptions of the amenities can be found in the Stop and Station Amenities chapter.

Shared Mobility: Refers to short-term rental mobility options that can be shared like bikeshare or scooters or micromobility devices that use and share the public right-of-way, such as skateboards.

Americans with Disabilities Act (ADA) Compliance: The Americans with Disabilities Act (ADA) of 1990 and subsequent amendments mandates equal access to all public transportation services, regardless of mobility status. The ADA requires that fixed-route transit be accessible and compliance to these mandates often deals with the characteristics of transit equipment, service and boarding areas. For more detailed information and backing on ADA requirements, please visit the link at the top of the paragraph.

Public Rights-of-Way Accessibility Guidelines (PROWAG): Recommended guidelines for designing and constructing facilities within the public rights of way, most recently updated in 2013, as a best practice for accessibility issues in the public right of way not covered by the Department of Justice’s currently adopted standards. For more information on PROWAG, visit the link at the top of the paragraph.

Texas Accessibility Standards 2012 (TAS): Technical requirements for accessibility to sites, facilities, buildings, and elements for people with disabilities. It applies during design, construction, additions to, and alterations of sites, facilities, buildings and elements to the extent required by the Texas Department of Licensing and Regulation under the authority of Texas Government Code, Chapter 469. The standards are intended to be consistent to the 2010 Standards for Accessible Design
and are generally the same except as noted. For more information on the TAS, visit the link at the beginning of this paragraph. The TAS is currently being updated and should always follow the most recently adopted version.

**Transportation Criteria Manual (TCM):** The City of Austin created this manual codified through Rule No. R161-21.14. This republication was enacted on December 6, 2021 and updated on July 12, 2022. The TCM serves as a foundation or starting point for the design requirements for transportation infrastructure. It includes standards and criteria for planning, design and coordination of applicable facilities within the city of Austin. The intent of the TCM is to apply a consistent approach to street design. CapMetro has worked with the City to develop sections of this manual as it relates to transit and building supportive infrastructure within the right-of-way. CapMetro follows TCM guidance where applicable and works with other jurisdictions directly to coordinate on design, permitting and implementation. For more information on the TCM, visit the link at the beginning of this paragraph. The TCM is updated relatively frequently and therefore should be referenced for the latest information as needed.
ABOUT THIS DOCUMENT

Transit stops and stations are the “front door” of transit systems. Their location, design and maintenance influence how riders experience transit. This document provides guidance for CapMetro and their partners to ensure transit is a safe, comfortable and convenient experience for customers. The Transit Stop & Station Design Guidelines is a tool to help CapMetro and other municipal and community partners deliver transportation choices that connect people, jobs and the community in a convenient, consistent and safe manner. The intent of these guidelines is to facilitate the proper siting, design and management of either existing or proposed stops and stations throughout the CapMetro service area.

Why It’s Important

Well-designed transit stops and stations enhance the transit experience, decrease perceived wait times for transit services and can increase ridership. CapMetro acknowledges that stop and station design and available amenities have an impact on people’s lives and their likelihood to use public transit. This document creates a path to improving how customers experience their transit system.
Who Should Use These Guidelines

The information in these guidelines will be useful to anyone involved in the planning, design, construction, maintenance and/or use of stops and stations: community members, transit staff, planners at the municipal, county, and state levels, as well as developers and private landowners.

These guidelines may be used by different audiences to assist them with their associated responsibilities and needs regarding bus stop placement and design. While CapMetro and other municipal partners are public professionals accustomed to guidelines and policy, community members and developers or property owners may be less familiar with how and when to use this document. Refer to the table below for direction on what each section of this document contains and what questions they might answer about the stop and station design process.

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<th>What Questions It Answers</th>
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<td>What are design guidelines? Who are they for?</td>
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<td>Stop and Station Types</td>
<td>What are the different types of stops and stations in the system? How do they differ in terms of their minimum, preferred and optional amenities?</td>
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<td>Stop and Station Amenities</td>
<td>What considerations are important for the amenities included at stops and stations?</td>
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<td>Stop and Station Configurations</td>
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<tr>
<td>Stop and Station Spacing and Placement</td>
<td>Where do stops and stations go? What factors are important to determine where they go?</td>
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Guidance and Standards

The content in this document is not intended to be strict standards, but instead to provide guidance and inform design decisions within the real-world context or needs of a specific location. Providing this guidance is meant to support the work of CapMetro, and flexibility is key as the street and right-of-way, or land in which a road is built, is unique in each context. Potential impacts must be considered when designing a stop or station and implementing the processes outlined in this document.

However, all stops and stations and any pertinent features should comply with Public Rights-of-Way Accessibility Guidelines (PROWAG) provisions and Texas Accessibility Standards (TAS). PROWAG adheres to standards set by the Americans with Disabilities Act (ADA), and while PROWAG are not governing standards, they do provide guidance for creating accessible right-of-way, where ADA does not provide standards. In that sense PROWAG goes beyond meeting ADA regulations. TAS closely mirrors ADA standards but should also be reviewed to ensure compliance in areas where it diverges from ADA.

This document incorporates the latest regulatory standards from ADA, PROWAG and TAS and best practices as of May 2023. When regulatory standards or guidelines are updated, the latest guidance and this document should be reviewed regularly and updated as needed to reflect these changes.

PROJECT CONNECT AND LIGHT RAIL

In 2020, Austin voters approved a property tax rate increase which provides dedicated funding to CapMetro, Austin Transit Partnership and the City of Austin’s plan to advance transit mobility, Project Connect. Project Connect includes constructing a light rail service in Austin, which will provide high capacity transit service that acts as a spine for the transit system, as well as several new MetroRapid services. As of May 2023, light rail station standards are being defined by Austin Transit Partnership as they work towards construction of this vision. Once light rail service is closer to a final design, CapMetro will incorporate additional guidelines that integrate the needs of light rail transit stations.
A high-quality transit stop is one that is well connected to the neighborhood or community it serves, accommodates the needs of all transit riders freely and comfortably, increases the safety of those waiting for the bus or train and enables efficient operations. Stop and station design should be guided by the following principles:

**Locate Stops and Stations in Convenient and Comfortable Locations**
Stops and stations should be located in places that are convenient to where people are traveling to and from, including near where housing or jobs are concentrated and key destinations such as social services or shopping.

**Locate Stops and Stations in Safe Locations**
Stops and stations should be located where customers feel comfortable, which is a location with enough people, activity and/or lights to not feel isolated. In addition, the location of the stop itself should be well lit and should provide adequate space for waiting riders to sit or stand, with considerations for other people using the street or sidewalk.

**Make Stops and Stations Visible and Easily Identifiable**
Stops and stations should consistently be located in easily identifiable places, so they can be found without difficulty by riders and bus drivers alike. Stops and stations should follow CapMetro branding guidelines for the specific service type operating, so that they are a recognizable component of the transit infrastructure.

**Make the Wait Comfortable**
Providing amenities, such as benches, lighting, bike parking, waste receptacles, etc. at stops and stations makes it more comfortable for riders to wait for the bus. While it is not practical nor cost-effective to provide all amenities at all stops, more extensive amenities should be provided in areas where there is greater need. See the Amenity Enhancement Process for more details on the process for distribution of amenities.

**Provide Information on Available Services**
Stops and stations should make it intuitive for riders to know when and where they’re traveling. Signs should provide basic service information such as route numbers and destinations. Stops and stations with higher amounts of riders should have arrival time estimates and route information at the stop.

**Integrate Stops into Street Design Processes**
When new developments are constructed, the stops and stations should be designed as part of the overall project, rather than placed as an afterthought. Similarly, when roads and/or sidewalks are reconstructed, stops should be developed as part of the overall design and brought to current stop or station amenity level standards.

**Provide Good Pedestrian and Bicycle Access to Stops and Stations**
Stops and stations should be located at sites that provide safe, PROWAG and TAS-compliant pedestrian access to the surrounding area, especially to the other side of the street. This should include well-defined and contiguous sidewalks to and from the stop or station, protected crossings or stops strategically placed at signalized intersections, and adequate bicycle facilities to and from the stop or station.
STOP & STATION TYPES

This section describes the types of stops and stations in the CapMetro system, including stops designated as transit hubs and transit centers. It also summarizes the level of amenities found at each. Definitions for each amenity and more detailed guidance can be found in the Stop and Station Amenities section.
DEFINING STOP & STATION TYPES

Transit stops and station types are defined according to their operational, service, land use and utilization characteristics. All stops and stations are assigned a type and subsequent amenity level (Levels 1 – 4). These types provide CapMetro with a clear starting point and practical guidelines for the provision of amenities at stops and stations and a structured process to improve the customer experience across the transit system. No matter how many customers use a stop or station on a given day, each requires certain key design elements to be safe, accessible, reliable and comfortable for riders. By formalizing the process for enhancing amenities at stops and stations, CapMetro sets clear goals for stop and station quality and ensures equitable distribution of amenities across the system.

Stops and stations are classified based on the average number of people who use the stop or station each day, the number of trips at a stop where people might experience wait times longer than 30 minutes or more and the type of transit service. Stops and stations are classified according to the following three types:

**Transit Stop – Level 1:** These stops serve the lowest daily ridership and provides the most basic level of amenities.

*Average Ridership:* 0 – 14 riders per day

**Transit Stop – Level 2:** These stops serve a mid-level of daily riders or riders who might have to wait a long time for the next bus or train, and therefore have additional amenities such as seating and a shelter.

*Potential for Long Wait Times:* More than half the transit trips arrive 30 or more minutes apart, and/or;

*Average Ridership:* 15 – 50 riders per day

**Transit Station – Level 3:** This level of station serves a high level of daily riders and high frequency routes. The highest level of amenities are provided at transit stations.

*Service Type:* Includes a MetroRapid or MetroRail service, and/or;

*Average Ridership:* More than 50 riders per day

Many transit agencies across the nation use riders per day to determine the level of amenities to provide at a stop. This is a core defining feature of the stop and station type, however, CapMetro has also identified that the community prefers that stops where a rider might have to wait a long time should be prioritized for shelters and seating. **Therefore, a stop that has a potential for long wait times has been moved to Level 2, even if the ridership is lower than 15 riders per day.** Also, CapMetro provides the highest expectations for amenities for their premium high capacity services, which includes MetroRapid and MetroRail, therefore, those service types qualify for the Transit Station type or Level 3 amenities.

**Reviewing Additional Site Context**

After the initial classification of stops and stations, additional site context information is reviewed to inform what amenities should be present at a particular location. There are two additional definitions of transit facilities to consider depending on the location’s context. Both of these types would increase the expectations of amenities provided to **Level 4.**

**Transit Center** – This is for stops or stations that support multiple transit routes and are typically owned or leased by CapMetro for an off-street location to support operational service needs.

**Transit Hub** – This is for stops that are located near dense, mixed-use areas or major community destinations that benefit from additional mobility options to support transit use.
For example, a transit station might be located near a lot of mixed-use development and be recategorized in this step as a transit hub so that the appropriate level of amenities are provided. This additional step helps CapMetro to assess the needs of their different types of facilities based on their surroundings.

**AMENITIES**

Stop and station amenities are desirable elements or features that improve the experience of waiting for a bus or train by providing comfort, safety and convenience. Amenities help retain and attract transit riders by improving the overall experience at stops and stations. Additional detail and guidance on specific amenities is included in the Stop and Station Amenities section. Amenities are divided into four categories based upon the experience they enhance:

- **Access amenities** allow people to comfortably get to and from stops and stations. Amenities in this category facilitate safety and access for all users.
- **Comfort/Safety amenities** address the state of the immediate environment around a stop or station. It encompasses amenities that make the space more comfortable and add elements of security for riders accessing the location.
- **Information amenities** help riders understand how to navigate the services available to them.
- **Building More Accessible Stops and Stations** are principles not listed under the table of amenities, but are a collection of elements that make experiencing getting to and from stops or stations a dignifying experience for customers.

The expected level of amenities for each stop or station are determined by the type. Under each level (1-4), each amenity is assigned one of the following classifications:

- **Required** – The typology must have the amenity present, based on legal requirements at the federal or local level.
- **Vital** – Use of the amenity is vital to the customer experience and should be provided unless CapMetro staff finds installation unfeasible or unnecessary based on the context.
- **Optional** – If monetary resources for the amenity are available, it should be provided unless built environment or other installation constraints are present.
- **Not Applicable** – Amenity is not applicable to the stop type.

For all new stops and stations, CapMetro will seek to provide the level of amenities associated with the stop or station type and the process for distributing funds for amenity upgrades is detailed in the Amenities Enhancement Process. Prioritizing locations to upgrade stop amenities, as well as determining and adhering to maintenance responsibilities, will ensure that amenities effectively benefit customers in the long term.
Summary of Amenities by Stop Type

The table below shows the required, vital and optional amenities for each stop and station type. CapMetro will consider the area constraints and fiscal constraints when placing amenities. Every reasonable effort should be made to meet the required amenities below, and thorough documentation should be recorded for any stop that does not meet required amenity levels. For vital amenities, good faith efforts should be made to include them at every stop, however physical or fiscal constraints may intervene, and should be recorded. Optional amenities should be included if the context of the stop allows. Refer to the Stop and Station Amenities section of this document for descriptions of each of these amenities.

<table>
<thead>
<tr>
<th>Amenity</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transit Stop</td>
<td>Transit Stop</td>
<td>Transit Station</td>
<td>Transit Center or Hub</td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing Pad/Platform</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Shared Mobility</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
<tr>
<td>Bike Racks</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
<td>Required</td>
</tr>
<tr>
<td>Wheelchair Charging</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
<tr>
<td>Comfort &amp; Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seating</td>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Shelter</td>
<td>Vital</td>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Lighting</td>
<td>Vital</td>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Waste Receptacles</td>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Landscaping</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Required</td>
</tr>
<tr>
<td>Security Camera</td>
<td>Optional</td>
<td>Optional</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Security Booth/Attendant</td>
<td>N/A</td>
<td>N/A</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sign and Pole</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Real Time Info</td>
<td>Optional</td>
<td>Optional</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Wayfinding</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
<tr>
<td>Personal Charging</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
<tr>
<td>Public Wifi</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
<tr>
<td>Fare Machine</td>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>
Transit Stops

Transit stops are the backbone of CapMetro’s transit network as they are the most common place where riders access the transit system. Stops provide critical points of access to daily needs. Even if some stops may have lower daily ridership, they should be accessible by all riders and include basic amenities to ensure safety and comfort.

With over 2,500 bus stops, CapMetro’s stops vary a lot throughout the system. There are two transit stop categories – Level 1 and Level 2. Because bus stops are used across many fixed route service types (High Capacity, Frequent, Local, Limited and Community), surrounding land uses may range dramatically including serving low density neighborhoods, commercial areas such as grocery stores and strip malls and higher density, mixed-used areas.

Given CapMetro’s commitment to providing amenities for customers in communities that could benefit the most from additional investment at transit stops, all stops that meet the Level 1 ridership criteria will also be evaluated for service frequency, to understand if customers at the stop may experience longer periods between buses. Longer potential wait times for a customer equals a greater need for stop amenities. If more than half of bus trips have frequencies greater than 30 minutes, the stop will be upgraded to Level 2, regardless of ridership.
Level 1 bus stops serve as the most basic stop type, generally supporting lower daily ridership, less frequent local bus service and typically served by only one route.

**Average Ridership:** 0 – 14 riders per day

### TRANSPORT STOP – LEVEL 1

<table>
<thead>
<tr>
<th>Required</th>
<th>Vital</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Landing Pad</td>
<td>• Seating</td>
<td>• Shared Mobility</td>
</tr>
<tr>
<td>• Sign and Pole</td>
<td>• Lighting</td>
<td>• Bike Racks</td>
</tr>
<tr>
<td></td>
<td>• Waste Receptacles</td>
<td>• Wayfinding</td>
</tr>
</tbody>
</table>

- Shelter
- Real Time Info
- Security Camera
- Personal Charging
- Public Wifi
- Fare Machine

- Public Wifi
- Fare Machine
Level 2 bus stops support low to medium ridership, less frequent MetroBus service and typically serve one or more routes. A stop that has a potential for long wait times is considered Level 2, even if the ridership is lower than 15 riders per day.

**Potential for Long Wait Times:**
More than half the transit trips arrive 30 or more minutes apart, and/or;

**Average Ridership:** 15 – 50 riders per day

### TRANSIT STOP – LEVEL 2

**Required**
- Landing Pad
- Sign and Pole
- Seating
- Waste Receptacles

**Vital**
- Shelter
- Lighting
- Bike Racks

**Optional**
- Shared Mobility
- Wayfinding
- Landscaping
- Wheelchair Charging
- Real Time Info
- Security Camera
- Personal Charging
- Public Wifi
- Fare Machine
Transit stations support CapMetro’s higher frequency transit service including MetroRapid and MetroRail. Transit stations support high daily ridership and support riders with the provision of additional amenities. Stations should be comfortable areas for riders to wait and provide information support services.

While surrounding land uses may vary, transit stations generally serve denser residential and commercial areas and important community destinations like educational institutions, grocery stores and sports stadiums.

**Service Type:** Includes a MetroRapid or MetroRail service, and/or;

**Average Ridership:** More than 50 riders per day

---

**TRANSIT STATION – LEVEL 3**

- **Required**
  - Landing Pad/Platform
  - Sign and Pole
  - Seating
  - Shelter
  - Lighting
  - Waste Receptacles
  - Security Camera
  - Real Time Info

- **Vital**
  - Shared Mobility
  - Bike Racks
  - Wheelchair Charging
  - Landscaping
  - Wayfinding
  - Personal Charging
  - Public Wifi
  - Fare Machine

- **Optional**
  - Security Booth/Attendant
A transit center should be applied at stops that serve riders with multiple mobility options in one convenient area. A key function of a transit center is supporting multiple routes or services, making it easy and convenient for riders to make transfers. Land use can vary greatly near transit centers. They may be located either on CapMetro-owned property, such as the Tech Ridge transit center and park and ride, or leased property, such as at the Norwood HEB or Westgate Transit Center.

A transit center should feel safe and comfortable for riders to access and wait for their ride and have amenities to support higher ridership. More than one shelter and additional seating may be considered at transit center stops where higher ridership is present. Amenities should include first/last mile facilities to connect riders from transit centers to their destination including but not limited to bike parking and vehicular parking where applicable. Transit centers should also have a higher level of information amenities to make it easy for riders to know when and where they need to go, even during service disruptions. Placemaking amenities, while optional, bolster a sense of place and community and should be considered where possible. A few examples of a transit center include North Lamar Transit Center, South Congress Transit Center, Tech Ridge Park and Ride and Eastside Bus Plaza. In order to power many of the necessary amenities at transit centers, a dedicated electric meter should be included at the site wherever feasible.
TRANSIT HUB – LEVEL 4

Transit hubs integrate multiple transportation modes such as bikeshare, shared mobility options such as scooters and access to safe, high-quality walking and biking infrastructure. The focus of transit hubs are to expand and integrate multimodal travel options, increase travel safety and enhance customer experience.

Transit hubs are anchored by high frequency transit and supported by dense, mixed-use development. Importantly, they link riders to commercial areas, community destinations and activity centers. Transit hubs should also consider local placemaking features such as public art and landscaping to bolster a sense of place and enhance customer experience.

Walking and biking along the streets and at intersections near the transit hub stop should be supported with high-comfort sidewalks and biking facilities to ensure adequate connectivity to the hub. Shared mobility zones should be present to designate where to drop off/pick up the shared vehicles. Bikeshare stations are highly encouraged at transit hubs to support first/last mile connections. A few examples of a transit hub include Martin Luther King Station, Pleasant Valley & E 7th Street and Plaza Saltillo Station.

In order to power many of the necessary amenities at transit hubs, a dedicated electric meter should be included at the site wherever feasible.

Required
- Landing Pad/Platform
- Sign and Pole
- Seating
- Shelter
- Lighting
- Waste Receptacles
- Landscaping
- Real Time Info
- Security Camera
- Bike Racks

Vital
- Shared Mobility
- Wheelchair Charging
- Wayfinding
- Public Wifi
- Personal Charging
- Fare Machine

Optional
*Security Booth/Attendant
This section goes into detail on guidance for siting each transit amenity along with the roles and responsibilities for partners in implementing each. CapMetro follows the guidance of the City of Austin’s Transportation Criteria Manual (TCM), which contains standards and guidelines related to transportation within the public right-of-way, including transit supportive infrastructure. At the time of publishing these guidelines, the latest TCM update was completed in July 2022. CapMetro may set additional guidance including guidelines to support efficient transit operations or set the level of amenities that should be provided. For those stops within the City of Austin, the TCM provisions are applicable. The key provisions from the TCM are included under each amenity in the Guidance sections as well as any other applicable documentation. Other municipalities in the CapMetro service area may contain their own specific provisions to transit amenities and CapMetro works directly on design, permitting and implementation with each jurisdiction.
LANDING PAD OR PLATFORM

Landing pads are areas where customers get off and on the bus. They offer space for bus drivers to deploy ramps, and where riders may queue in line to get on the bus. All stops must have landing pads provided and landing pads should cover all doors of the transit vehicle. Landing Pads must comply with the latest PROWAG provisions.

Platforms are the rail equivalent of a landing pad, where customers get off and on the train. The configuration and dimensions of a platform depends on the track location, right-of-way and passenger capacity. Station platform lengths shall be in accordance with ADA, Federal Railroad Association guidance, state, county and local requirements, as well as the appropriate environmental decision document.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Stop</td>
<td>Transit Stop</td>
<td>Transit Station</td>
<td>Transit Center or Hub</td>
</tr>
<tr>
<td>Required</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

Guidance

According to PROWAG, all new or upgraded bus stops are required to have a front landing pad that:

- Provides near level boarding with a 9” curb
- Provides a clear length of 96 inches (8’) minimum, measured perpendicular to the curb, and a clear width of 60 inches (5’) minimum, measured parallel to the roadway
- Parallel to the roadway, the slope shall be the same as the roadway, to the maximum extent practicable
- Has a cross slope perpendicular to the roadway that does not exceed 1:48 (approx. 2%)

CapMetro exceeds PROWAG guidance, and implements a 10’x30’ (8’X25” min.) pad to allow space for the rear door, where context allows. Additionally, the 8’x5’ clear area of the landing pad should be kept clear of any obstructions or other amenities to allow uninterrupted movement for all customers.

Tactile warning strips, also referred to as truncated domes in the engineering field, should be included along the entire edge of the boarding platform for Level 3 and Level 4 stops. Placement and use of tactile warning strips should follow PROWAG guidance.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| CapMetro Staff  | • Approving all landing pad or platform design and location from other agencies or developers  
|                 | • Design and construction of all landing pads or platforms at stops or stations associated with CapMetro capital projects |
| Municipal Staff | • Design and construction of all landing pads or platforms at stops along municipally-funded corridor development programs |
| Developer       | • Design and construction of all developer-initiated alterations of current or planned CapMetro stops and stations |
**SHARED MOBILITY**

**Bikeshare**
Public bikeshare stations are bicycle racks where riders can access public bikes. Placing bikeshare stations near stops provides a first/last mile option for riders by connecting bikeshare to transit services. In 2022, the City of Austin and CapMetro agreed to a 10-year expansion project of public bikeshare, an emerging transportation mode, which includes goals of transitioning to a 100% electric fleet, equipment enhancements and expanding service area to outside of Austin’s urban core. The latest expansion plan for the public bikeshare system will dictate where future stations will be located.

**Scooters and Other Shared Mobility**
Micromobility services offer transportation options for short-term rental from the public right-of-way and provide a first/last mile option for transit riders to access bus stops. Micromobility options may include electric scooters, or other small mobility devices that do not have a license plate. Micromobility providers are regulated by the City of Austin, but are owned and operated by private entities. Designating space for micromobility vehicles makes it easy for transit riders to end their trip near the bus stop while ensuring the vehicles do not interfere with surrounding walkways.

**Where They’re Required**

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>

**Guidance**
Section 9.9.0 of the TCM sets general guidelines for dockless mobility parking areas to match bike rack guidelines in Section 9.8.0, which are further discussed in the next section.

**Roles and Responsibilities**

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Install new Bikeshare facilities&lt;br&gt;• Partner with the City of Austin to operate and maintain the public bikeshare system&lt;br&gt;• Partner with the City of Austin to plan for operations and expansion of the public bikeshare system</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Fund bikeshare expansion in concert with partner agencies&lt;br&gt;• Coordinate with CapMetro for public bikeshare planning, expansion, installation, maintenance and operation&lt;br&gt;• Administer the Shared Micromobility Program which manages and provides permits to private shared micromobility providers</td>
</tr>
<tr>
<td>Developer</td>
<td>• Coordinate with CapMetro on integration of public bikeshare at stops and stations</td>
</tr>
</tbody>
</table>
BIKE RACKS

Bicycle racks at bus stops provide additional support for customers accessing bus service. While there are a variety of bike rack styles, bike racks should permit the use of a high security lock (such as a U-lock), allow the frame and both wheels to be locked, and not damage the bike when locked. Within constrained areas, CapMetro will assess the stop area to determine the appropriate multi-modal infrastructure.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
<td>Required</td>
</tr>
</tbody>
</table>

Guidance

When siting bike racks, CapMetro should adhere to the following considerations:

- Bike racks must not interfere with walkways, accessible routes and bus door zones
- Bike racks should be placed in a highly visible, well-lit area
- Bike racks should be placed on a paved or concrete surface, not on grass or dirt

According to Section 9.8.0 of the City of Austin TCM, all bike racks must meet the following criteria:

- Bike racks should provide enough space to accommodate two bicycles per “U” in a rack. The standard space is 2’ wide, 6’ long and 3’ 4” tall. If larger bicycles are anticipated at a particular bike rack, the standard spacing should use the specific bicycle in mind as the standard design
- Minimum spacing of racks placed next to each other is 3’ as shown in TCM figure 9-17
- Racks should be placed in the pedestrian or bicycle and street edge zone, or the tree and furniture zone. They should be outside of travel lanes, loading zones and bike lanes. Bike racks must also not obstruct a pedestrian path when bikes are locked to them
- Bike racks may be installed parallel, perpendicular or at a 45–60-degree angle to the curb

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Install and maintain new bike racks at transit stops and stations</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro for their installation</td>
</tr>
<tr>
<td>Developer</td>
<td>• Fund and install bike racks on development property and align with TCM standards</td>
</tr>
<tr>
<td></td>
<td>• Coordinate with CapMetro for their installation</td>
</tr>
</tbody>
</table>
WHEELCHAIR CHARGING

Wheelchair charging is a critical need for those using mobility devices to access transit. At the stop or station, a charging outlet provides reliability and convenience for riders, who may need to top off their device or charge it in order to make the final portion of their trip.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>

Guidance

Charging outlets require an electric connection to the stop or station and should be a standard 120 volt outlet. They should be located in an accessible space, with clear access and maneuverability around the outlet. Outlets should be clearly labeled for wheelchair charging use, with informational signage to help other riders understand the priority of the use is for those using mobility devices. Outlets should also be located under a covered area.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Install and maintain outlets</td>
</tr>
<tr>
<td></td>
<td>• Install and maintain labeling of wheelchair charging and informational signage for other riders</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro for their installation as needed</td>
</tr>
<tr>
<td>Developer</td>
<td>• Coordinate with CapMetro for their installation as needed</td>
</tr>
</tbody>
</table>
A bench provides an opportunity for riders to pass time comfortably while they wait for the bus or train to arrive. Benches are required at all stop types except for Level 1 bus stops. For Level 1 bus stops, bench placement will be considered for stops that serve riders who benefit most from the amenity including the elderly and people with varying abilities (as detailed in the amenity enhancement process). Lean rails may also be included at stops but are not a substitute for benches. Lean rails are a vertical structure about waist height which allow customers to lean on and rest while waiting for the bus to arrive. Lean rails take up less footprint than benches and can provide additional comfort for stops where right-of-way space is limited.

**Where It’s Required**

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

**Guidance**

Seating can include benches, leaning rails and low stone walls. Seating should be shielded from vehicular traffic.

- Benches should be constructed with durable material and be resistant to vandalism and wear from weather exposure through design. Seating must also be ADA and TAS compliant in dimension.
- The recommended minimum length for benches of 6.5’ or the equivalent of three seats. CapMetro may install benches that are shorter based on the use of the stop, or the space available in constrained locations. CapMetro will accommodate the most seating feasible based on the previous factors along with financial availability.
- Benches should include arms at either end to assist seniors and people with disabilities in standing.
- The recommended height of leaning rails of 2.5’ above the stop location surface or slightly higher than seat height.

Section 6.3.5.3 of the TCM makes recommendations for seating considerations and characteristics:

- Seating should be installed at stops with high use by elderly people and children, as well as stops with longer wait times or a high volume of travelers.
- Benches should prioritize visibility of people sitting.
- Benches should be in the Tree and Furniture zone and maintain 2’ spacing from other street furniture and waste receptacles and 3’ from utility appurtenances or other amenities for appropriate access. Benches may alternatively be placed adjacent to building faces that abut the right-of-way line provided that clear width is maintained for the sidewalk.
- Benches shall include space for wheelchair access adjacent to the bench. Reference the City of Austin Standard details for design of benches.

**Roles and Responsibilities**

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| CapMetro Staff    | • Fund and install only CapMetro Standard Benches attached to bus shelters  
|                   | • Maintain all bus stop seating |
| Municipal Staff   | • May fund and install municipal or custom seating at bus stops where demand is high  
|                   | • Coordinate with CapMetro for placement and installation of bus stop seating |
| Developer         | • Fund and install seating at stops and stations adjacent to property  
|                   | • Coordinate with CapMetro for their installation |
A shelter protects riders from the elements, both heat and rain, and helps identify the location of a stop. Shelters are also one of the most visible elements of CapMetro’s transit network to the public, therefore adhering to shelter design guidance is important for network continuity. Shelters are required for transit stations, transit hubs and transit centers. While shelters are considered a valuable amenity for the transit stop types mentioned, site constraints may limit the possibility of shelter placement.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
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<tbody>
<tr>
<td>Vital</td>
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</tr>
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</table>

Guidance

According to Section 6.3.5.2 of the TCM, shelters should not obstruct pedestrian through-paths and should be oriented towards the path to the landing pad.

Passengers must be able to easily see transit vehicles that arrive, and operators must be able to easily see passengers. Shelters should have internal lighting or be in well-lit areas. The shelter should have perforated panels, glass or an open back wall to enhance visibility.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| CapMetro Staff  | • Fund and install CapMetro standard shelters based on the amenity enhancement process  
|                 | • If shelter is being installed by the City of Austin or a developer or in private right-of-way, coordinate with the relevant parties for installation  
|                 | • Maintain all shelters within the bus stop network                               |
| Municipal Staff | • Coordinate with CapMetro for their installation                                 |
| Developer       | • Fund standard shelters based on the amenity enhancement process at stops adjacent to property  
|                 | • Coordinate with CapMetro for their installation                                 |
Well-lit bus stops make riders and the surrounding community feel safer, more secure and more comfortable than transit stops or stations in poorly lit areas. Lighting also provides greater visibility for operators and riders at a stop. Transit stop placement should consider areas where pedestrian scale streetlights are present. Solar lighting should be placed at all stops where there are no environmental constraints and secondary lighting is not present. If a shelter is being placed at a stop, solar lighting can be integrated into the shelter, except in cases where there may be significant solar obstruction.

**Where It’s Required**

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vital</td>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

**Guidance**

In Section 6.3.5.5 of the TCM, it states that pedestrian-scale lighting includes lamps less than 25’ high. Referencing other similar size agencies and academic literature, other recommended characteristics of pedestrian scale lighting include:

- Spacing of 30m (approximately 98’) intervals
- Lighting styles that complement the architectural style of adjacent developments
- Providing an average level of 1.3 to 2.6 f.c. (horizontal foot candles) or 13 to 26 lux, which is the typical light level around a building entrance
- Energy saving devices like efficient lamps, solar power and daylight sensing equipment
- Additional lighting from nearby streetlights and illuminated signage and fixtures

**Roles and Responsibilities**

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Fund, install and maintain integrated bus shelter lighting and sign-mounted power lights at stops and stations</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Install and maintain overhead streetlamps at stops and stations</td>
</tr>
<tr>
<td></td>
<td>• Coordinate with CapMetro for placement and installation</td>
</tr>
<tr>
<td>Developer</td>
<td>• Install and maintain adjacent lighting at stops and stations</td>
</tr>
<tr>
<td></td>
<td>• Coordinate with CapMetro for placement and installation</td>
</tr>
</tbody>
</table>
WASTE RECEPTACLES

Waste receptacles offer convenience for waiting riders and help to reduce the amount of waste left on vehicles and the surrounding transit stop area. CapMetro provides two types of waste receptacles: regular waste and solar compacting.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vital</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

Guidance

Within the City of Austin, waste receptacles and recycling containers are located next to each other at all locations in compliance with the Universal Recycling Ordinance. CapMetro works with other municipalities to locate waste receptacles or recycling as needed and in compliance with other local ordinances.

According to Section 6.3.5.4 of the TCM, waste receptacles shall be within 50’ of the entrance to food service establishments. Preferred placement of waste receptacles is within the Tree & Furniture Zone.

In the Downtown area, waste receptacles shall be located at intersections, adjacent to sidewalk curb ramps and follow Great Streets Standards. The waste receptacle shall be outside of the curb ramp limits, and directly next to the curb ramp no more than 1 foot away from the curb ramp and either within a sidewalk or directly adjacent to the edge of a sidewalk.

Waste receptacles should be placed at the far side of benches, and, like other street furniture, they must be at least 2’ away from other street furniture.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| CapMetro Staff  | • Fund and install CapMetro standard waste receptacles at stops and stations  
|                 | • Maintain CapMetro-installed waste receptacles at appropriate intervals to ensure stops and stations remain comfortable for those waiting for transit |
| Municipal Staff | • May fund and install municipal or custom waste receptacles at stops and stations  
|                 | • Maintain municipal or custom waste receptacles at appropriate intervals to ensure stops and stations remain comfortable for those waiting for transit  
|                 | • Coordinate with CapMetro for placement and installation |
| Developer       | • May fund and install waste receptacles at stops or stations adjacent to property  
|                 | • Coordinate with CapMetro for their installation |
LANDSCAPING  COMFORT & SAFETY

Landscaping improves the visual experience and beauty of a space by incorporating green space in and around transit stops and stations. Landscaping can provide functional advantages like shading and shelter, as well as psychological benefits like making the environment more inviting and appealing.

Where It’s Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Required</td>
</tr>
</tbody>
</table>

Guidance

Landscaping should not impede an unobstructed pedestrian route, and should be maintained to allow a shy zone buffer between the pedestrian realm. Landscaping species should be drought resistant and appropriate for central Texas climates and adhere to municipal standards for specific species and watering regulations.

Green infrastructure is also a valuable stormwater management tool and can improve water quality, detain stormwater flows and reduce stormwater volumes. Landscaping specific to stormwater mitigation should follow municipal codes and should be carefully designed to not overflow near transit infrastructure, where such an instance may affect the customer experience and travel time of transit vehicles.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| CapMetro Staff     | • Fund, install and maintain landscaping within CapMetro stop or station areas  
                      • Coordinate with municipal staff on appropriate species and planting procedures  
                      • Coordinate with municipal staff for maintenance of landscaping in the ROW but outside of CapMetro stop or station areas |
| Municipal Staff    | • Coordinate with CapMetro staff on appropriate species and planting procedures  
                      • Coordinate with CapMetro staff for maintenance of landscaping in the ROW but outside of CapMetro stop or station areas |
| Developer          | • Coordinate with CapMetro and municipal staff on landscaping location, species and planting at development site |
SECURITY FEATURES

Amenities such as security cameras and attendants provide greater sense of security for riders and provide tools for CapMetro to respond to incidents at transit facilities. This also enhances the perception of safety and may encourage new riders.

Where They’re Required

<table>
<thead>
<tr>
<th></th>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Camera</td>
<td>Optional</td>
<td>Optional</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Security Booth/Attendant</td>
<td>N/A</td>
<td>N/A</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

Guidance

In accordance with the American Public Transit Association (APTA) Recommended Practice: **Bus Stop Design and Placement Security Considerations**, CapMetro completes a Crime Prevention Through Environmental Design (CPTED) survey to “identify and recommend the appropriate enhancements to implement crime prevention or homeland security measures.” The Recommended Practice “**Application of CPTED for Public Transit Facilities**” contains information about performing a CPTED survey and should be reviewed. Some considerations mentioned in the best practice paper include the following design interventions: natural surveillance, clear lines of sight, lighting, landscaping and access control.

In addition to CPTED, guidance for additional security features CapMetro enlists are described below. Each of these features require a power connection to the stop or station.

**Security Cameras** – Security cameras act as a deterring factor for criminal behavior and provide an avenue to enforce laws and regulations. Security cameras must accompany locations where high-value assets are located, like fare machines. Security cameras are also an important asset at high ridership locations.

**Security Booth & Attendant** – Security booths allow CapMetro staff a designated location to provide customers with support for safety and security needs. They also allow passengers a central location for assistance should it be needed on site.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| CapMetro Staff      | • Fund and install security features at stops and stations  
|                     | • Maintain CapMetro-installed security features       |
| Municipal Staff     | • Maintain municipal or custom security features       
|                     | • Coordinate with CapMetro for placement and installation |
SIGN AND POLE

Transit stop and station signs are the most basic element of a transit stop and are vital to the rider experience. They indicate where operators will stop and where riders will board and alight the vehicle. Signs are required at all stops and stations.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

Guidance

Signage should contain route name, number, direction and destination, CapMetro customer service phone number, system logo and website address.

Signage at major boarding locations should include information about schedules and routes. Every transit stop and station has a unique ID number that must be displayed, and include instructions on finding real time information through texting, the online trip planner or the CapMetro mobile app.

Signs must be ADA compliant. This includes signage in braille and with raised lettering for the stop ID number and the routes that serve the stop or station. Preferred sign location is 2’ set back from the curb edge and with 2’ clearance from the landing pad.

Transit sign posts should also be distinguishable from other street signs at their base by a detectable indicator. This will help those using a cane to identify vertical elements with transit specific information for riders.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Provide, install and maintain a sign at every transit stop and station</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro for pole placement and installation in the public right-of-way</td>
</tr>
<tr>
<td>Developer</td>
<td>• Coordinate with CapMetro for pole placement and installation in the private right-of-way</td>
</tr>
</tbody>
</table>
REAL TIME INFORMATION

Real time information provides up-to-date information on bus arrival time, which is based on the actual location of the bus or train on the route. Real time information greatly enhances the rider experience and ease of use as it enables riders to spend less time waiting for transit and anticipate arrival times more accurately – even when the bus or train is delayed. Real time information is displayed at the stop with a digital display and is built into the trip planner app on CapMetro’s mobile app and website.

Where It’s Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

Guidance

According to the TCM in Section 6.3.5.6, information technology devices should be placed in the Pedestrian Zone without impeding an unobstructed, accessible pedestrian route and should be placed in an accessible location that complies with the applicable provisions of PROWAG.

For all stops or stations with real time information, a power connection must be provided.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Fund, install and maintain real-time information displays at transit stops and stations</td>
</tr>
</tbody>
</table>
WAYFINDING MATERIALS

Wayfinding materials at a stop or station can include schedules, system and route maps and local area maps. These are important because:

- Schedule information at stops and stations helps reduce some of the uncertainty associated with taking the bus and provides information for people without access to CapMetro apps
- Transit system maps can assist customers in determining the best routing for their trip, including identifying transfer locations. System maps can also act as low-cost advertising and help potential customers understand how they can use transit services
- Local area maps provide neighborhood context for transit riders unfamiliar with a given location and can alert regular users to previously overlooked destinations and transfer opportunities

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Stop</td>
<td>Transit Stop</td>
<td>Transit Station</td>
<td>Transit Center or Hub</td>
</tr>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>

Guidance

The following guidelines are recommended for wayfinding materials:

- Placement of information in predictable location like overhead or eye-level, place at regular intervals and include context-specific information at decision points
- Include information that facilitates multi-modal options of travel, like locations of bikeshare stations or regional transportation information
- Use easily understood units like walking time from the stop or station to the destination

CapMetro should collaborate with relevant stakeholders in the surrounding area of stops and stations to identify key, place-specific information to incorporate. Enhanced information should also be delivered in a way that is accessible and ADA compliant, leveraging technology in consideration of disabilities like visual impairment. Examples of this information technology includes tactile maps, detectable warnings and directional texture, infrared talking signs, GPS, mobile apps and smart pens. For more information on these accessible resources, projectaction.org provides more detailed information and other disability-specific wayfinding strategies.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Fund, install and maintain printed bus schedules and system and route maps at stops or stations</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro for placement and installation of community centric wayfinding to be included at stops and stations</td>
</tr>
</tbody>
</table>
PERSONAL TECHNOLOGY CHARGING STATION

Personal technology charging stations are areas around transit stops and stations where people can plug in and charge their phones or other devices. This feature at transit stops provides support for personal devices, allowing people to take transit without worry of losing connectivity or use of their mobile app, which many customers use for their tickets and route information.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>

Guidance

Based on recommendations at other agencies, personal technology charging stations are recommended in areas with higher ridership, major transfer points, and stops with longer wait times for riders. Other recommendations include installing personal technology charging stations in coordination with payment/real-time app development and can be incorporated with fare machines.

Charging should be provided via 120 volt outlets. The area should have clear labeling identifying the amenity for riders. The charging station should be located under a covered area, and be separate from designated wheelchair charging outlets.

All stops and stations that contain a personal technology charging station must have a power connection.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Fund and install personal technology charging stations at stops and stations</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro for utilities around installation of personal technology charging stations</td>
</tr>
<tr>
<td>Developer</td>
<td>• Coordinate with CapMetro for utilities around installation of personal technology charging stations</td>
</tr>
</tbody>
</table>
PUBLIC WIFI

Public wifi is an amenity commonly found in public places which allows people to access the internet on personal devices. Many transit riders use their personal devices to access the CapMetro app to find trip information, access tickets and receive alerts from CapMetro.

Cities across the country have begun to implement public wifi as a public utility. It provides access to opportunities for underserved communities and provides everyday convenience for riders in a digital world.

Where It’s Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>

Guidance

Wifi equipment should be installed in a secure location, to prevent vandalism or unintentional damage during daily use, and should be built to standards that will protect it from the elements. The network should work seamlessly with on-vehicle network to allow riders to transition smoothly from the station to the vehicle without losing signal.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Fund install and maintain public wifi system at stop and station locations</td>
</tr>
<tr>
<td></td>
<td>• Coordinate with municipalities on local public wifi programs to sync networks</td>
</tr>
<tr>
<td></td>
<td>as needed as changes to public wifi best practice evolves</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro on future public wifi initiatives to explore opportunities for partnership and integration networks</td>
</tr>
</tbody>
</table>
FARE MACHINE

Fare machines, also known as ticket vending machines (TVMs), are secure electronic kiosks that allow customers to purchase single fares and passes. The installation of fare payment/purchase equipment at transit stops can improve customer convenience and service reliability by reducing on-board cash transactions and bus stop dwell times.

Where They’re Required

<table>
<thead>
<tr>
<th>Level 1 Transit Stop</th>
<th>Level 2 Transit Stop</th>
<th>Level 3 Transit Station</th>
<th>Level 4 Transit Center or Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Optional</td>
<td>Vital</td>
<td>Vital</td>
</tr>
</tbody>
</table>

Guidance

According to the TCM in Section 6.3.5.6, like Real Time Info technology, fare kiosks should be placed in the Pedestrian Zone without impeding an unobstructed, accessible pedestrian route and should be placed in an accessible location that complies with the applicable provisions of PROWAG.

Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro Staff</td>
<td>• Fund, install and maintain fare machines at transit stops and stations</td>
</tr>
<tr>
<td>Municipal Staff</td>
<td>• Coordinate with CapMetro for utilities around installation of fare machines</td>
</tr>
<tr>
<td>Developer</td>
<td>• Coordinate with CapMetro for utilities around installation of fare machines</td>
</tr>
</tbody>
</table>
BUILDING BETTER STOPS

Sidewalk

Sidewalks provide critical access for people walking and rolling to and from their transit stop and are a key part of the infrastructure that facilitates multimodal connectivity. At minimum, a sidewalk should be present on the same side of the street as the stop and continue through to the nearest intersections on either side of the transit stop.

Sidewalk connectivity and design is critical to stop access. Sidewalks must provide clear and unobstructed paths to transit and comply with PROWAG and TAS guidelines. Width of sidewalks should be in alignment with the latest edition of the TCM in Section 2.

Protected Crossings

Protected crossings provide a designated space for vulnerable road users to cross motor vehicle traffic. They are crucial for transit access because they keep people safe when crossing busy roads. They also make it easier and more comfortable for pedestrians and cyclists to use public transportation, encouraging more people to choose it as a convenient way to travel.

CapMetro requires all new transit stops to be placed within 100 feet of a protected pedestrian crossing. This practice aligns with Section 4.2 of the TCM, which recommends crossings within 100 feet of all transit stops. For older stops that may be further away from a protected crossing, CapMetro may move the transit stop closer to an existing crossing or coordinate with the City of Austin and other jurisdictions to add a new crossing.

Protected crossings include stop or signal-controlled intersections or mid-block crossings, with signalized pedestrian crossing islands, where needed. For stops at a midblock location, protected crossings should be considered based on context of the roadway. In addition, all pedestrian crossings must be compliant with the provisions of Section 4.2 of the TCM, including a maximum desirable distance between marked crossings based on street level. The City of Austin’s Crossing Guidelines provides further recommendations of appropriate treatments for pedestrian crossings based on a street’s number of lanes and median presence, annual average daily traffic and vehicle speeds or posted speed limits.

Multimodal Access

All users should be able to get to transit using a variety of mode choices. Access to and from transit stops and stations should be well maintained and accommodate people who walk, bike, use wheelchairs or other mobility devices.

Section 6.2.3 of the TCM clearly states that a clear path of travel shall be provided for each mode, serve all users and provide a sense of comfort to and from the stop or station, and that priority shall be given to people walking and biking over motorized traffic.

The preferred configuration for rights-of-way where transit and bike networks overlap is a floating stop with raised or protected bike lanes. Section 6.2.3.1 of the TCM contains guidance and design details and must be followed for integrating bike facilities at the stop or station.

Park & Ride

Park & Rides are an important component of the transit system, concentrating transit demand and enabling transit services that would otherwise not be cost-effective, and are designed to transfer commuters from low-occupancy modes (personal cars) to high occupancy modes (rail, bus, vanpool and carpools).
Public Art

Public art improves the experience at transit stops and stations by offering interesting and engaging visuals while waiting for services. Public art fosters a sense of belonging and identity, which makes a space more comfortable. Integrating public art around transit stops benefits the transit network and surrounding community by offering opportunity for local artists, creating a sense of place and improving the rider experience.

The MetroArt program works to collaboratively educate inform and engage central Texas residents about the value public transit brings to the community. The art and music program aims to strengthen community and culture by:

- Creating inviting public spaces that people want to revisit
- Supporting local artists through paid work
- Increasing the sense of home and belonging in central Texas neighborhoods
- Partnering with local agencies, non-profits and community organizations.

Heat Mitigation

Shade and relief from the heat is an important factor for riders during most months of the year in Central Texas. Transit stop placement should accommodate the most shade coverage feasible. Transit centers should consider additional heat mitigation measures. Heat mitigation measures can include:

- Sun screens integrated on stop or station shelters
- Street trees
- Structural shade from built environment
- Fabric shade shelters

Trees can provide cooling, shading and shelter, and have been shown to mitigate the negative impact of high temperatures on ridership more than typical bus stop shelters in the CapMetro service area. Staff should consider taking advantage of existing street trees for shade when placing stops; however, staff must also consider solar power availability when placing shelters with solar-powered lighting. Research on heat mitigation has produced evidence that street trees are slightly more effective at mitigating ridership decrease from high temperatures and that street trees and shading are the amenities most perceived by riders to have cooling effects.

A combination of measures should be considered to provide the most protection for riders possible. Mitigation strategies may be unique to each site and careful review should be taken when siting stop or station locations or when retrofitting a site with heat mitigation.

Collaboration with partner organizations such as nonprofits has been one way to facilitate heat mitigation measures around transit stops and stations.


Bathrooms

Public bathrooms provide a basic service for riders waiting for a connection or alighting after a long trip as well as for the surrounding community. While bathrooms serve an important purpose for customers and the general public, they require a unified approach to their management and maintenance. CapMetro is undergoing a holistic review of qualifications and locations where bathrooms may be appropriate, and will coordinate with the City of Austin and other member cities to determine the feasibility of establishing these for public use.
STOP SPACING AND PLACEMENT

This chapter helps answer the following questions: How far apart should stops or stations be from one other? What factors are important when deciding where a stop should be placed on the curb?
STOP & STATION SPACING

The distance between stops or stations significantly impacts bus and rail travel times. It can also both positively and negatively impact the willingness for customers to use transit and their experience while doing so. Transit service runs more efficiently when stops and stations are optimally spaced but must balance the need for rider access and service experience.

Stops or stations placed closer together provide customers with shorter walk times, but they also increase travel times and are a major reason that transit is slower than automobile travel. Each additional stop or station requires the bus to slow down, come to a complete stop and load and unload riders before speeding up and re-merging into traffic. Most riders want transit service that balances convenience and speed, and the number and location of stops is a key component of determining that balance. Providing fewer, safer and more accessible stops and stations enhances rider experience over more stops that are less accessible.

Stop or station spacing is aligned with the type of service that is provided and the travel experience it aims to achieve. For example, MetroRapid is a high capacity bus service, and therefore has stations that are further apart between 2,650 to 4,000 feet or ½ to ¾ mile to provide a faster and more reliable service. Commuter rail is also a high capacity service, but has a more nuanced spacing standard which depends highly on surrounding land use and site availability and access. Commuter rail stop spacing should be placed as needed and prioritize fast and efficient service, while balancing access needs for commuters. Local service will have tighter stop spacing on average around 1,300 feet or ¼ mile. The table below shows the average stop and station spacing based on service type.

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Average Distance (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity</td>
<td></td>
</tr>
<tr>
<td>Rail</td>
<td>As needed</td>
</tr>
<tr>
<td>Rapid</td>
<td>2,650 – 4,000</td>
</tr>
<tr>
<td>Frequent</td>
<td>1,300 – 2,650</td>
</tr>
<tr>
<td>Local</td>
<td>~1,300</td>
</tr>
<tr>
<td>Limited</td>
<td>As needed</td>
</tr>
<tr>
<td>Community</td>
<td>As needed</td>
</tr>
</tbody>
</table>
STOP & STATION PLACEMENT

Stop and station placement involves balancing customer safety, accessibility and operational efficiency. All stops and stations should be fully accessible with a concrete landing and access to a sidewalk or pathway that connects to an intersection. When siting a stop, considerations should be given to the location it is serving. For example, if the stop is near a grocery store, riders may be carrying heavy bags, so the stop should be placed as close to the entrance of the store as possible with clear and convenient access from the stop to the store entrance. Stops and stations should be placed at intersections to maximize pedestrian safety; however, infrastructure considerations can affect stop placement, including right-of-way availability, cost of installation and maintenance, potential future changes to a stop location, city, county, state or federal laws and regulations or other operational reasons.

Stop & Station Pairing

Riders need to be able to make a round trip using transit. A stop or station needs to have a stop pair which allows for taking a transit route in both directions. Stop and station locations should be located within close vicinity to the stop for taking the same route back the other direction. This makes it simpler for riders to navigate the transit system and provides a similar level of access to a location when making a round trip. This makes transit service easier to use and more convenient. CapMetro staff may need to use professional judgment as certain land use or street context may prevent closely paired stops or stations.

Locations at the Intersection

Transit stop and station positions at the intersection impact the reliability of transit service and convenience for the customer getting to the stop. When placing a stop, it can be located near-side, far-side or mid-block in relation to the intersection. Far-side stops are the preferred placement in most situations to keep the bus moving, for the safety of pedestrians exiting the bus and for the drivers to be able to effectively merge back into traffic. However, each location needs careful consideration for stop placement based on the amount of right-of-way and set up of that particular intersection. For more detailed information on the location of stops at the intersection, see the Stop and Station Configurations section.
High Transfer Stops & Stations

A high transfer stop or station refers to a location where riders are often making a connection to another transit service. For example, a rider may get off the Rail Connector Route 465 at a bus stop at MLK Station to connect to the Red Line station. Where transfer activity between routes is significant, stops or stations should be located as close together as possible to provide a short walk and convenient transfer for customers. This may result in a near-side and far-side stop at the same corner of an intersection to mitigate the need to cross the street. CapMetro staff will use professional judgment to site stops and stations at high transfer locations based on the land use and operational context.

Driveways

Driveways and other curb cuts near transit stops or stations can pose safety hazards for customers getting on and off transit and for drivers of transit vehicles. There are six principles that guide the siting of stops in relation to driveways, illustrated below.

There may be locations where it is not possible to meet all six principles for driveway arrangements to create or preserve equal access to the transit stop. Safety and accessibility are the most important considerations when siting stops around driveways and curb cuts. In cases where stops are competing with driveways consistently along a corridor, driveway consolidation and access management, in coordination with municipal partner staff may be a beneficial solution.
This section reviews the location of stops at the intersection, and the configuration of stops within the right-of-way. It also gives guidance on setbacks from the crosswalk, and advantages and considerations for each stop locations and configuration.
LOCATIONS AT THE INTERSECTION

Determining where to locate stops and stations is one of the most important factors that makes transit run well. Transit stop placement involves balancing customer safety, accessibility, comfort and operational efficiency. A stop can be described in terms of its location along the block relative to the nearest intersection, and its configuration relative to the curb and the adjacent area. The dimensions included in this section are based on best practices but are subject to change based on site-specific constraints or opportunities. When placing at stop near an intersection, sometimes the placement may require that driveways need to be consolidated or closed to create room for transit vehicles to stop safely.

FAR-SIDE

Far-side stops are located past the intersection so vehicles move past the traffic signal and crosswalk before reaching the stop. This reduces delay by allowing the bus to resume its trip as soon as passengers have finished boarding, rather than having to then wait for a green light. Far-side bus stops are generally preferred as this placement increases visibility and reduces the chance of collisions between buses and right turning vehicles before the intersection.

NEAR-SIDE

Near-side stops are located before the intersection. These are not preferred, as vehicles may have to wait at a red light, which can impact speed and reliability. Other drivers may also try to merge in front of a stopped bus to make a right turn, which can create a safety concern or further delay the bus. To avoid this, near-side stops should be built to allow transit vehicles to stop as close to the intersection as possible, up to 10’ from the crosswalk. A near-side stop may be preferred if it is closest to the destination most riders are going to at the location.
Mid-block stops are not located at an intersection. They are typically only placed near important destinations or where longer block lengths do not allow for optimal stop spacings. These stops should be accompanied by mid-block crossings protected by signalized pedestrian crossings, or pedestrian crossing islands, in coordination with the City of Austin or other service member jurisdictions.

### Summary of Configuration Details

<table>
<thead>
<tr>
<th>Stop Placement</th>
<th>Rear Buffer from Crosswalk (ft)</th>
<th>Stopping Area (ft)</th>
<th>Front Buffer from Crosswalk (ft)</th>
<th>Total Length (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>40' Bus</td>
<td>60' Bus</td>
<td>40' Bus</td>
</tr>
<tr>
<td>Far-side</td>
<td>20</td>
<td>40</td>
<td>65</td>
<td>N/A</td>
</tr>
<tr>
<td>Far-side after Bus Left Turn</td>
<td>20</td>
<td>40</td>
<td>65</td>
<td>N/A</td>
</tr>
<tr>
<td>Far-side after Bus Right Turn</td>
<td>20</td>
<td>40</td>
<td>65</td>
<td>N/A</td>
</tr>
<tr>
<td>Near-side</td>
<td>N/A</td>
<td>40</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>Mid-block</td>
<td>N/A</td>
<td>40</td>
<td>55</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Values in table are approximate for planning purposes.*
The table below describes the trade-offs of these stop placements as well as important considerations for CapMetro when they are implemented.

<table>
<thead>
<tr>
<th>Stop Placement</th>
<th>Benefits</th>
<th>Considerations</th>
<th>Ideal Locations</th>
</tr>
</thead>
</table>
| Far-side       | • Riders exiting the bus will cross behind the bus, which is safer.  
                 • A bus can merge more easily back into a travel lane due to gaps created by the signal.  
                 • Consider traffic signal priority to increase likelihood bus makes it through an intersection.  
                 • If the stop is part of a high transfer stop pair, near-side may be preferable. | • Consider at all stop locations, but especially those with high right turn volumes or where bus travel time delay occurs. |
| Near-side      | • Not preferred, but may be best fit for places where transfer pairs would be improved, where space constraints limit far-side options or where it is closest to a destination many riders are going to.  
                 • Near-side stops may obscure the sightlines between pedestrians and drivers turning right.  
                 • Near-side stops may impact vehicle operations and schedule reliability.  
                 • Minimize space that would be left in front of stopped vehicles, so drivers do not attempt to turn in front of them. | • High transfer locations.  
                 • Locations with high bus left turns or high turn volumes.  
                 • Locations where preferred far-side placement is not feasible. |
| Mid-block      | • Allows a stop to be located directly in front of a high-demand destination even if not at an intersection.  
                 • Midblock stops allow buses to avoid complexity at intersections (turning vehicles, pedestrians, etc.).  
                 • Can be used to achieve desired spacing.  
                 • Mid-block placements require crossing treatments.  
                 • Drivers may not expect a bus to stop midblock.  
                 • Walking distance for transfers may increase. | • Where spacing guidelines and destinations dictate. |
BUS STOP & STATION CONFIGURATIONS

In-Lane Bus Stops & Stations

In-lane stops allow vehicles to stop in the travel lane. These stops do not require them to move into parking or bike lanes, reducing conflicts between pedestrians, cyclists and transit users. They help increase reliability and speed because buses do not have to wait to merge back into traffic and also provide more space to furnish amenities at the curb.

BUS BULB

A bus bulb is an extension of the curb into the parking lane which allows buses to stop against a curb without exiting the travel lane. Bus bulbs are typically used on lower speed roadways with speed limits less than 35 mph.

FLOATING

Floating bus stops are those on streets with dedicated bike facilities, which continue behind the waiting area of a bus stop. The preferred configuration includes separate spaces for the waiting area, bike lanes and the sidewalk, but if there is limited right-of-way available, sometimes these areas may share space. Floating stops should generally comply with the dimensions for bus bulbs.

Accessibility and universal design principles are important at these stops as they can be more difficult to understand for people with vision impairments due to the required crossing of bike facilities.
Out-of-Lane Bus Stops & Stations

Out-of-lane stops require transit vehicles to pull out of travel lanes to stop at the curb. These allow for continued traffic flow for other drivers but are generally less desirable as they may increase delays because buses need to merge back into traffic when departing the stop.

### CURBSIDE

Curbside stops are the most common stop configuration. At these stops, the bus pulls out of the travel lane, fully or partially, to the curb to serve riders. While these stops are common, they are not recommended on streets with a bike lane, or high vehicle speeds with higher potential for people driving to sideswipe or rear-end buses.

### PULLOUT

Pullout stops for on street configurations, or bus bays for off street, refer to stops where vehicles pull entirely out of the travel lane into a bus-only pull-out space. Typically, this stop configuration is not used by CapMetro due to the difficulty in merging back into traffic and the resulting delay riders experience. However, these stops are typically found at select locations where having the bus exit the travel lane is desirable for safety or operational reasons. These can also be an appropriate option at locations where longer dwell time can be expected for operator breaks or at timepoints. Typical dimensions for pullouts are shown below.

Values are approximate for planning purposes.
The table below summarizes the key considerations for CapMetro when these stop configurations are chosen.

<table>
<thead>
<tr>
<th>Stop Config.</th>
<th>Type</th>
<th>Benefits</th>
<th>Considerations</th>
<th>Ideal Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-Lane</td>
<td>Bus Bulb                                                                                                                                     • Bus bulb stops can reallocate right-of-way to provide more amenities such as shelters and seating, as well as reduce delay by allowing the bus to stop in-lane.</td>
<td>• Coordination may be needed if parking spaces will be lost when implemented (Austin Transportation Department, property owners, etc.).</td>
<td>• At any locations where the bus experiences delay due to having to merge back into traffic. • Where there is not enough right-of-way behind the existing curb to install amenities that the stop warrants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Floating                                                                                                                                    • Floating stops eliminate or mitigate the conflicts between pedestrians, transit riders and cyclists by providing separate space.</td>
<td>• Some locations may lack the right of way needed for separate space for each mode; constrained floating bus stops with shared boarding/bike space is an option.</td>
<td>• Any stop where a bike lane exists or is proposed.</td>
</tr>
<tr>
<td></td>
<td>Out of Lane</td>
<td>Curbside                                                                                                                                    • Allowing the bus to pull out of traffic may be desirable at some locations for operational or safety reasons.</td>
<td>• May not be suitable for arterials that experience high amounts of traffic congestion or delay.</td>
<td>• Where there is not enough right-of-way to implement a full pullout stop.</td>
</tr>
</tbody>
</table>
COMMUTER RAIL STATIONS AND CROSSINGS

CapMetro currently operates nine commuter rail stations that provide riders a place to safely get on or off the Red Line and connect to the area’s walking network, trails, bus stops or a park-and-ride lot. There are usually one or two platforms at each station depending on the track configuration and operational requirements. Platform design including the width, length and layout will vary depending on the site needs. The configuration chosen depends on the right-of-way available, number of tracks, level of service provided, passenger capacity, vehicle size and capacity requirements, ADA and other contextual conditions.

CapMetro follows detailed guidance based on the technical requirements of commuter rail, and works closely with the public, officials and staff during planning and engineering phases to identify and analyze specific station locations. The types of commuter rail station configurations are outlined at a high level below.

CENTER PLATFORM

A center platform allows riders to access both the inbound and outbound trains from one platform when there are two tracks. This usually requires that riders cross the railroad in order to reach the platform unless there is an overpass or underpass. A benefit of this configuration is that riders do not need to decide between multiple platforms depending on which direction they are trying to ride. A disadvantage of this configuration is that it is difficult to handle a surge in riders due to limited space. A current example of this type of configuration is MLK Station on the Red Line.
A side platform configuration typically has a platform for each track. If there are 2 tracks, a station will have 2 platforms, one on each side, where riders access the inbound and outbound trains from separate platforms. Riders will need to know which platform to use based on their direction of travel. This usually requires that riders cross the railroad in order to reach the opposite platform absent an overpass or underpass. Where a single track is present there is only one platform. A current example of this type of configuration is Lakeline Station on the Red Line, where there is a single track and a side platform.
A center/side platform is a combination of the previous two configurations where there is both a center platform and a side platform, typically with one track in between platforms instead of two. A current example of this configuration is Downtown Station, which has a center platform that can be used for boarding and alighting for inbound and outbound trains, and a side platform for additional capacity for alighting in the future.
At-Grade Rail Crossings

CapMetro’s commuter rail shares tracks with freight and the rail corridor runs outside of general traffic except where it crosses streets and highways. All grade crossings should have full road crossing gates with flashers and warning bells. Pedestrian or bicyclist crossings of the railroad tracks occur only at approved locations, almost always where roadways intersect the railroad tracks, or at pedestrian crossings adjacent to station platforms. Medians or a four quadrant gate can be installed at crossings to prevent traffic from driving around the active gates. The type of treatments are determined on an individual basis after reviewing train speed, visibility, vehicle and pedestrian activity and more. All rail crossings follow federal, state and local standards to ensure compliance and the safety of those crossing the railroad.

Guidance

According to Section 6.2.3.4 of the TCM, Rail Crossings should:

- At-grade rail crossings shall conform to the latest edition of the Texas Manual on Uniform Traffic Control Devices (TMUTCD) standards and are subject to the required US DOT approval process.
- Slopes to at-grade crossings shall comply with grades to curb ramps and crossings shall be 12 ft. or 16 ft. wide depending on ridership and constructed of precast concrete panels.
- The crossing shall extend from the face of one platform to the face of the opposite platform at the same elevation as the top of rail.
- The platform shall be depressed to the crossing at a rate that does not exceed 8 in. rise for 16 ft. of run.
- Signalized crossings shall be provided at locations where two or more tracks are crossed; gates at crosswalks shall not be allowed at these locations.
- Cross track boarding is to be avoided and warning signals should be provided at all existing at-grade crossings.
- The number of at-grade crossings is based on the platform length and the maximum distance between at-grade crossings is 405 ft.
APPENDIX B
AMENITY ENHANCEMENT PROCESS
2023
TRANSIT AMENITY ENHANCEMENT

The prioritization process for transit stop and station amenity updates and upgrades gives each stop a score based on a multi-criteria analysis of existing stop conditions and its surrounding characteristics. The approach includes both quantitative and qualitative data to incorporate statistics based on Census and City data, as well as community input to provide valuable context to transit stop needs and the degree of urgency. As a next step, CapMetro will develop a strategy for implementing transit stop improvements, including innovative financing options.

Amenity Enhancement Components

The amenity enhancement process prioritizes transit stops based on several indicators that address the following criteria:

- **People With High Amenity Need: 60% of total score**
- **Transit Stop Use: 13% of total score**
- **Multimodal Access: 20% of total score**
- **Customer Requests: 7% of total score**

Weighting of indicators is based on a prioritization of equity considerations when distributing bus stop amenity upgrades and funding. The most weight went to people who would benefit most from amenity enhancements, followed by a stop’s access to infrastructure and services, how often a stop is used and whether the stop has received specific customer requests for amenity updates. Please refer to the Amenity Distribution Scoring Rubric below for a summary of all indicators, their groups and those groups’ weighting towards the final score.
People With High Amenity Need

People With High Amenity Need represents historically disadvantaged communities. This group also represents those who are more likely to rely on transit as their primary mode of transportation, making proper amenities at their transit stops a priority.

The table below presents criteria for bus stop scoring based on data that identifies transit reliant and historically disadvantaged communities:

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Indicator</th>
<th>Data Type</th>
<th>Points Criteria</th>
<th>Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest American Community Survey (ACS) 5-Year Census Data</td>
<td>BIPOC populations</td>
<td>Table B03002</td>
<td>2 points = 85th percentile or above</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Low-income households</td>
<td>Table B19001</td>
<td>1 point = Above average</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Zero vehicle households</td>
<td>Table B25044</td>
<td>0 points = Average or lower</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Older adults (65+)</td>
<td>Table B01001</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Youth (14 and younger)</td>
<td>Table B01001</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Individuals with disabilities</td>
<td>Table B23024</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Individuals with low English proficiency</td>
<td>Table B16004</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>USDOT Data</td>
<td>Justice40 disadvantaged communities</td>
<td>Justice40 Dataset</td>
<td>4 points = Disadvantaged tract</td>
<td>4</td>
</tr>
</tbody>
</table>

ACS

Each bus stop is assigned the Census Tract that it is within using a spatial join in GIS. All stop values are then compared to determine the average of the set of bus stops, as well as the 85th percentile value for each ACS indicator. Each bus stop is then assigned the corresponding points based on how it compares to those values.

Justice40

The Justice40 Initiative is an environmental justice-based Biden administration goal that 40% of the overall benefits of certain Federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.

Justice40 data is collected at the federal level and highlights disadvantaged Census Tracts that meet the thresholds for at least one of the tool’s categories of burden, or if they are on land within the boundaries of Federally Recognized Tribes. The categories of burden are Climate Change, Energy, Health, Housing, Legacy Pollution, Transportation, Water & Wastewater, or Workforce Development. The Justice40 indicator uses GIS to determine whether a bus stop is within a Census Tract that is designated as “disadvantaged” in the Justice40 dataset.
Transit Stop Use

This indicator measures the proportion of total transit trips to a stop that ended up serving at least one customer. The intention of the indicator is to balance bus stops with low boardings that occur frequently with bus stops that have high boardings that occur infrequently.

This indicator determines transit stop use reliability through a two-step process:

1. Assess whether each trip at a stop resulted in at least one boarding or one alighting. If there was either one boarding or one alighting, a value of 1 is assigned to the stop for the trip; if either is false, a value of 0 is assigned to the stop for the trip.

2. Sum the total of the trip values from Step #1 and divide it by the total number of trips serving the bus stop for the period of time evaluated.

The resulting value is a percentage, which is then compared to the use at all stops, and given a score from 1 to 4 depending on what quartile a stop falls in.

Below are two hypothetical examples of calculating stop use.

**HOURLY WEEKDAY SERVICE**

<table>
<thead>
<tr>
<th>7am</th>
<th>8am</th>
<th>9am</th>
<th>10am</th>
<th>11am</th>
<th>12pm</th>
<th>1pm</th>
<th>2pm</th>
<th>3pm</th>
<th>4pm</th>
<th>5pm</th>
<th>6pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Value Total = 4 boardings or alightings

Transit Stop Use = 33% (4 boardings or alightings/12 daily trips)

**PEAK PERIOD WEEKDAY SERVICE**

<table>
<thead>
<tr>
<th>7am</th>
<th>8am</th>
<th>9am</th>
<th>10am</th>
<th>11am</th>
<th>12pm</th>
<th>1pm</th>
<th>2pm</th>
<th>3pm</th>
<th>4pm</th>
<th>5pm</th>
<th>6pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Value Total = 4 boardings or alightings

Transit Stop Use = 66% (4 boardings or alightings/6 daily trips)

To calculate this indicator, CapMetro uses Automatic Passenger Count (APC) data that assigns an ID for each transit trip at each stop and the boarding/alighting for each trip at each stop for all CapMetro services. The table below summarizes the Transit Stop Use Reliability indicator.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Indicator</th>
<th>Data Type</th>
<th>Points Criteria</th>
<th>Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapMetro</td>
<td>Transit Stop Use</td>
<td>APC Data</td>
<td>4 points = Very High</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 points = High</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 points = Medium</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 point = Low</td>
<td></td>
</tr>
</tbody>
</table>
Multimodal Access

Multimodal Access indicators focus on surrounding infrastructure, services, and facilities to prioritize bus stops based on sidewalk connectivity and the stop’s proximity to destinations people would use transit to reach. The table below provides a summary of the indicators and how they are scored.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Indicator</th>
<th>Data Type</th>
<th>Points Criteria</th>
<th>Possible Points</th>
</tr>
</thead>
</table>
| City of Austin| Sidewalk Reliability           | City of Austin’s Strategic Measure; Sidewalk Segment Data | 2 points = 85th percentile or above  
1 point = Above average  
0 points = Average or below | 2               |
| City of Austin| Proximity to Key Destinations  | Key Destination GIS layer         | 4 points = 2+ types of destinations within 1/2 mile  
2 points = 1 type of destination within 1/2 mile  
0 points = No key destinations within 1/2 mile | 4               |

Sidewalk Reliability

The value of comparison for each bus stop’s sidewalk reliability score is the ratio of “Absent” sidewalk segments to total sidewalk segments within ¼ mile of the stop.

Proximity to Key Destinations

Using GIS, key destination data from City of Austin is geospatially analyzed to identify every transit stop’s proximity to these key services and facilities. In GIS, each stop is given a ½-mile radius buffer and is assigned a score based on how many and what type of destinations fall within that radius.

The following services are considered key destinations for this indicator:

- Libraries
- Recreation Centers
- Schools
- Hospitals
- Childcare centers
- Employment centers
- Parks

Each bus stop is given a score of 1 if one type of destination is within a ½ mile radius and 2 points if two or more types of destinations are within a ½ mile radius.

Customer Requests

The customer feedback indicator offers community input in the prioritization process for stop amenity distribution. The indicator will score stops by reviewing customer call reports that request amenities at bus stops. Bus stops with one amenity-related call receive 1 point, while bus stops with more than one amenity-related call receive 2 points.
About Bicycle Access

Bicycle access to transit is an important component of a well-functioning transportation system, as both modes together provide reliable coverage to areas that transit could not serve alone. People who bike to transit and people who walk or take rideshare to transit deserve the same amenities regardless of the mode used to access transit except for bike parking. Bike access is not part of the evaluation process for amenity enhancement because the proximity of a transit stop to protected bicycle infrastructure does not influence the relative need for upgrading the amenities at that stop. Bike parking is an important amenity for people using a bike to access transit, however, it should be placed on a case by case basis according to measured or predicted cycling use for the system at large and by the amount of space available at the stop or station. Any increased use of a given stop or station caused by greater density of protected bicycle infrastructure nearby is captured in the ridership metric used to assign stop type, and directly influences amenity levels provided at that stop or station.

PROCESS IMPLEMENTATION

The Amenity Enhancement components work together to identify the amenity needs of all CapMetro transit stops and score the stops to determine which needs should be met with the resources available. This makes it easier for CapMetro to make cohesive decisions and be more transparent with the public.

Each stop is classified into types based on ridership and service type, as stated in the Transit Stop and Station Design Guide. These are the following steps for amenity distribution process.

**Step 1 – Identify Amenity Needs**

Using stop inventory data developed and maintained by the agency, a list of amenity needs can be created for each stop. If unit costs are documented for each amenity type, total costs to meet stop type amenities levels can be developed to understand the level of investment required at each stop.

**Step 2 – Prioritize Stops**

All stops in the system are scored and prioritized based on the Amenity Enhancement Process also described in detail in the Methodology section.

**Step 3 – Allocate Resources**

Based on the time when financial resources become available, funds can be distributed starting with the top priority stops to purchase amenities to bring the stops up to the newly established stop type amenity standards. CapMetro may determine to allocate funds in buckets based on classification type, or solely based on priority scoring. With over 2,500 transit stops, this process will take time and be repeated as more funds are available to bring stops up to the standards incrementally over time.

Stop Type Classification should be completed on at least an annual basis to ensure that stop types are upgraded as needed, which will increase the expected amenities. In some instances, it will also trigger needed updates including new stops and service type upgrades.
Exceptions

New Stops

New stops in previously unserved areas will not have ridership numbers or measured frequency to go on. Therefore, staff will need to assign an initial stop type based on like service from another corridor. Once the service has matured, after 12 – 24 months, the stop type should be reassessed with actual stop data.

Service Type Upgrades

If a specific route receives service changes or improvements like increasing the route frequency, the stops in that route should go through the amenities enhancement process again to ensure they account for the new appropriate amenity level needed. For example, if a stop had previously been served by only local service, and a new MetroRapid service is implemented, it will become a Transit Station stop type with different amenity requirements.

Customer Requests

Customer requests should be added and scoring updated at regular intervals, before new batches of funding are allocated to amenity enhancements.
# AMENITY DISTRIBUTION SCORING RUBRIC

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Possible Points</th>
<th>Overall Weight in Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity Indicators</strong></td>
<td>BIPOC populations</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-income households</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zero vehicle households</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Older adults (65+)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Youth (14 and younger)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Individuals with disabilities</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Individuals with low English proficiency</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Justice40 disadvantaged communities</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>60%</strong></td>
</tr>
<tr>
<td><strong>Stop Use &amp; Accessibility Indicators</strong></td>
<td>Transit Stop Use</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sidewalk Reliability</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proximity to Key Destinations</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>33%</strong></td>
</tr>
<tr>
<td><strong>Customer Feedback</strong></td>
<td>Customer Feedback</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>7%</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td><strong>30</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Board of Directors</td>
<td>Item #: AI-2023-804</td>
<td>Agenda Date: 6/26/2023</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
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<td>------------------------</td>
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</tr>
<tr>
<td>Sustainability Program Update</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sustainability Vision Plan Update

June 26, 2023
CapMetro Board Meeting
Sustainability Vision Plan Overview

- Aligned with CapMetro Strategic Plan
SUSTAINABILITY PLAN IMPLEMENTATION

Vision
To build and operate sustainable transit infrastructure that keeps communities connected, protects and restores our natural systems and environment, and helps grow a vibrant economy.

Sustainability Goals

GREENHOUSE GAS EMISSIONS (GHG)/ CARBON NEUTRAL GOAL:
Carbon Neutral by 2050, consistent with Austin Climate Equity Plan.

ZERO WASTE GOAL:
90% reduction of waste to landfills by 2040, consistent with Austin Zero Waste Plan.

WATER AND NATURE GOAL:
Sustainably manage water resources and enhance nature and natural systems through conservation and green infrastructure.

SUSTAINABLE BUILDINGS AND INFRASTRUCTURE GOAL:
Use sustainable design guidelines and rating systems (Envision, Austin Energy Green Building, LEED) to guide all capital projects.

EQUITY AND LIVABLE COMMUNITIES:
Leverage transit resources to enhance sustainability, connectivity, access to opportunities, and create livable places, especially in historically disinvested communities.

Action Areas

- ENERGY: CONSERVATION, EFFICIENCY, RENEWABLES
- SUSTAINABLE AND ZERO EMISSION FLEET
- WATER AND NATURAL WORLD
- ZERO WASTE, NATURAL RESOURCE MANAGEMENT
- GREEN BUILDING AND INFRASTRUCTURE
- ACTIVE TRANSPORTATION
- ENVIRONMENTAL AND SUSTAINABILITY MANAGEMENT
2022 Progress
Sustainability Vision Plan Action Areas: 2022 Results

- **Used 25% less water; or 5,783,000 fewer gallons**
- **Reduced energy use by 90,538 kWh**
- **Reduced air pollutants by 54%, or 213 metric tons**
- **Used 12% less fuel; or 547,367 gallons**
- **Diverted 118,640 pounds of municipal waste from the landfill by recycling and composting**
- **Purchased 8,430,635 kWh of Green Choice, renewable energy**

vs. 2016 baseline
Reporting our Progress to Zero Net Carbon

- In 2022, CapMetro reduced GHG emissions by over **10,000 metric tons** per year, or **14% from** 2016 baseline.

- Vehicle emissions are the largest single contributor to CapMetro's greenhouse gas (GHG) emissions.

- Converting our fleet to zero/near-zero emissions is critical to meet our goals and is underway.
Even with growth, our facilities are using about the same amount of energy as we did in 2016.

We are sourcing more renewable energy.

- In 2022: Purchased 8,430,635 kWh Green Choice energy.
- In 2023: Pursuing renewable sources – Bluebonnet Coop, Pedernales Coop, and Texas Gas.

Continued focus on energy efficiency, reducing peak demand, and on-site renewable generation.
Diesel usage has been reduced as we add electric buses to the fleet.

Electric buses are powered by Austin Energy Green Choice renewable wind energy.

Energy Use - Electric Buses

<table>
<thead>
<tr>
<th>Year</th>
<th>kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>552,455</td>
</tr>
<tr>
<td>2022</td>
<td>599,545</td>
</tr>
</tbody>
</table>
Lower emission buses provide a cleaner way to get around and a benefit to the community:
- Reduced smog forming emissions.
- Reduced health impacts such as respiratory and heart disease.

We do this by replacing less efficient buses and making engine improvements: **our entire bus fleet is now on par with 10 DMUs.**
We conserve water through design and facility improvements:

- Upgrade to more efficient bus wash equipment/bus wash best practices.
- Continue to design sustainable, native landscapes and green infrastructure.
- Use reclaimed water.
Expanding our Zero Waste capacity:

- Getting to **zero waste** will require recycling at our stops/stations: an estimated 60% of material collected at our public facilities is recyclable.

- Measuring waste reduction not currently reflected, including surplusing, repurposing, and recycling buses, computers, uniforms, demolition waste.
2023 Sustainability Projects
2023 Sustainability Projects
Service Supportive

**North Ops Solar Array**
- Building solar generation and shading our buses in the yard
- 4.2 MW solar capacity

**Solar Bus Stops**
- 30 solar powered Rapid stations powering lights, amenities and comms
- Innovative thin film technology

**Electric Bus Transition**
- Electric Bus fleet expansion in FY 2023/FY 2024
- Charging Infrastructure installation at N. Ops, 2910, Rapid end-of-line charging
## 2023 Sustainability Projects
### Recycling, Renewables & Infrastructure

<table>
<thead>
<tr>
<th>Recycling</th>
<th>Expand Purchases of Renewable Energy</th>
<th>Green Building and Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pilot program at 4 park and ride locations</td>
<td>• AE Green Choice</td>
<td>• <em>Envision</em> for Sustainable Infrastructure – McKalla Station</td>
</tr>
<tr>
<td>• Plan for expansion including Rapid</td>
<td>• Pursue renewable options: Bluebonnet Coop and Pedernales Coop</td>
<td>• Finalize sustainability design guidelines, criteria, standards</td>
</tr>
<tr>
<td></td>
<td>• Explore renewable natural gas</td>
<td>• Workforce training programs for Envision ISI and LEED</td>
</tr>
</tbody>
</table>

### Recycling
- [Image of recycling logo]
- [Image of recycling materials]

### Expand Purchases of Renewable Energy
- AE Green Choice
- Pursue renewable options: Bluebonnet Coop and Pedernales Coop
- Explore renewable natural gas

### Green Building and Infrastructure
- *Envision* for Sustainable Infrastructure – McKalla Station
- Finalize sustainability design guidelines, criteria, standards
- Workforce training programs for Envision ISI and LEED
2023 Sustainability Projects
Governance, Community & Partnerships

Measuring Carbon and Sustainability

- Increase transparency, accounting, and governance by using the Climate Registry government reporting protocol
- Sharing best practices through local peer working group with CoA, Travis County, University of Texas

MetroBike Expansion

- Incorporating e-bikes and expanding a new mode for our customers
- Electrification of e-bikes and stations will be Green Choice, renewable energy.

Sustainability Partnerships

- Built Environment, Equity, Sustainability (BEES) working group
- Texan by Nature
- Air Central Texas/Clean Air Force

THE CLIMATE REGISTRY
We are making progress: To build and operate sustainable transit infrastructure that keeps communities connected, protects, and restores our natural systems and environment, and helps grow a vibrant local economy.
Thank you!
President & CEO Monthly Update
Memo: Capital Projects Portfolio, April Year-to-Date (June 20, 2023)
To: CapMetro Board of Directors  
From: Catherine Walker, CapMetro, EVP Chief Financial & Risk Officer  
Date: June 20, 2023  
Re: Capital Project Portfolio, April Year-to-Date

The purpose of this memo is to provide an updated view of CapMetro’s current capital project portfolio. At the May FAA Committee, FAA Chair Matt Harris had asked to see a list of projects for the current fiscal year, and we are sharing that list with the full board.

Capital project funding is bucketed into nine categories or portfolios, as follows: Vehicles, Facilities, Contingency, Information Technology, Freight Railroad, Project Connect, Commuter Rail, Property and Asset Management, and Security. Each quarter we present a summary year-to-date view of these portfolios to the FAA Committee and/or Board, showing a comparison of the year-to-date expenses plus outstanding known commitments (i.e., purchase orders that have been issued), versus the annual capital budget. Outlined below is a list of all the budgeted projects for each of the 9 portfolios, ordered by annual budget size. Many of these projects are multi-year projects, so the expenses reflected here are only for the current budget year. Also note that the contingency budget may fluctuate based on the need to add or fund a project in one of the other eight portfolios, for the addition of smaller miscellaneous projects, as projects are reprioritized out to future years, or when projects are removed from scope entirely.

If you have any questions regarding any specific project, please contact Ed.Easton@capmetro.org. Ed will work to ensure your questions and comments are addressed by the appropriate CapMetro staff.

### Capital Project Details - Gross Expenses

<table>
<thead>
<tr>
<th>Category</th>
<th>FY23 Actual</th>
<th>FY23 Apr YTD</th>
<th>FY23 Apr YTD Committments</th>
<th>FY23 Budget</th>
<th>FY23 YTD % of Budget Incl. Commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Buses - FY2022 Electric Bus Replacements</td>
<td>7,059,434</td>
<td>7,301,768</td>
<td>42,034,000</td>
<td>7,059,434</td>
<td>34.17%</td>
</tr>
<tr>
<td>Electric Bus Chargers</td>
<td>80,570</td>
<td>0</td>
<td>10,645,000</td>
<td>80,570</td>
<td>0.76%</td>
</tr>
<tr>
<td>Paratransit Van Replacement</td>
<td>0</td>
<td>0</td>
<td>6,863,000</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Paratransit Fleet Expansion</td>
<td>73,125</td>
<td>3,932,020</td>
<td>5,051,500</td>
<td>73,125</td>
<td>79.29%</td>
</tr>
<tr>
<td>Heavy Duty Driver Barriers</td>
<td>1,697,304</td>
<td>779,969</td>
<td>2,433,440</td>
<td>1,697,304</td>
<td>101.80%</td>
</tr>
<tr>
<td>Non-revenue Vehicle Replacement</td>
<td>873,227</td>
<td>969,476</td>
<td>2,154,600</td>
<td>873,227</td>
<td>85.52%</td>
</tr>
<tr>
<td>Transmission Dyno Replacement</td>
<td>0</td>
<td>0</td>
<td>350,000</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Vehicle Maintenance Bus Frame Machine</td>
<td>0</td>
<td>38,580</td>
<td>50,000</td>
<td>0</td>
<td>77.16%</td>
</tr>
<tr>
<td><strong>Total Vehicles</strong></td>
<td><strong>$9,783,660</strong></td>
<td><strong>$13,021,813</strong></td>
<td><strong>$69,581,540</strong></td>
<td><strong>$9,783,660</strong></td>
<td><strong>32.78%</strong></td>
</tr>
<tr>
<td>Facilities</td>
<td>Budget 2023</td>
<td>Budget 2024</td>
<td>Budget 2025</td>
<td>Populated %</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Bus Electrification Infrastructure Phase 2</td>
<td>1,918,273</td>
<td>8,845,472</td>
<td>49,402,013</td>
<td>21.79%</td>
<td></td>
</tr>
<tr>
<td>Demand Response South Base</td>
<td>0</td>
<td>0</td>
<td>17,250,000</td>
<td>0.00%</td>
<td></td>
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<tr>
<td>Bus Garage 3</td>
<td>0</td>
<td>0</td>
<td>5,000,000</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>Airport Lamar Red Line Grade Separation</td>
<td>79,221</td>
<td>3,908,328</td>
<td>4,571,309</td>
<td>87.23%</td>
<td></td>
</tr>
<tr>
<td>CPO and CMTA Bus Stop Coordination Construction</td>
<td>0</td>
<td>0</td>
<td>3,500,000</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>Existing Bus Stop Shelters Improvements</td>
<td>101,696</td>
<td>1,817,367</td>
<td>3,364,410</td>
<td>57.04%</td>
<td></td>
</tr>
<tr>
<td>Bus Stop Enhancements</td>
<td>231,498</td>
<td>1,360,978</td>
<td>3,294,000</td>
<td>48.34%</td>
<td></td>
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<tr>
<td>2910 New Bus O&amp;M Facility</td>
<td>0</td>
<td>0</td>
<td>2,500,000</td>
<td>0.00%</td>
<td></td>
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<tr>
<td>Monuments and Signs Rebranding</td>
<td>0</td>
<td>0</td>
<td>2,000,000</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>Double Tracking from East Timbes to 7th St Underpass</td>
<td>218,576</td>
<td>198,725</td>
<td>1,730,000</td>
<td>24.12%</td>
<td></td>
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<tr>
<td>Small Scale Transit Hubs</td>
<td>319,230</td>
<td>486,202</td>
<td>1,660,000</td>
<td>48.52%</td>
<td></td>
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<tr>
<td>Double Tracking from Adelphi Lane - Loop 1 to McNeil Drive</td>
<td>470,658</td>
<td>467,950</td>
<td>1,322,710</td>
<td>70.96%</td>
<td></td>
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<tr>
<td>Office Space Re-Configuration (Headquarters Facility)</td>
<td>1,488,316</td>
<td>353,322</td>
<td>1,176,641</td>
<td>156.52%</td>
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</tr>
<tr>
<td>North Lamar Transit Center Redevelopment</td>
<td>0</td>
<td>0</td>
<td>1,000,000</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>Double Tracking from Onion St to East Timbes and Plaza Saltillo Station</td>
<td>185,917</td>
<td>370,994</td>
<td>705,17</td>
<td>78.94%</td>
<td></td>
</tr>
<tr>
<td>MetroBike Station Expansion and Replacement</td>
<td>0</td>
<td>14,248</td>
<td>630,000</td>
<td>2.26%</td>
<td></td>
</tr>
<tr>
<td>Rail Storage Facility at Austin Wye</td>
<td>0</td>
<td>0</td>
<td>625,000</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>4th and Sabine New Crossing Gates</td>
<td>54,351</td>
<td>64,820</td>
<td>551,623</td>
<td>21.60%</td>
<td></td>
</tr>
<tr>
<td>Bus Stop Construction and Related Infrastructure Improvement</td>
<td>360,428</td>
<td>97,701</td>
<td>500,000</td>
<td>91.63%</td>
<td></td>
</tr>
<tr>
<td>UT Dean Keeton MetroRapid Stations Relocation</td>
<td>0</td>
<td>0</td>
<td>500,000</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>Lakeline Station East Side Platform Project - Design and Construction</td>
<td>0</td>
<td>315,853</td>
<td>500,000</td>
<td>63.17%</td>
<td></td>
</tr>
<tr>
<td>Rebranding of MetroRapid and Local Shelters</td>
<td>0</td>
<td>0</td>
<td>500,000</td>
<td>0.00%</td>
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<tr>
<td>Park and Ride ePaper Installations</td>
<td>62,111</td>
<td>30,030</td>
<td>400,000</td>
<td>23.04%</td>
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<tr>
<td>DT Station-Pedestrian Crossings</td>
<td>34,849</td>
<td>34,244</td>
<td>378,943</td>
<td>18.23%</td>
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<tr>
<td>Broadmoor Station and double track</td>
<td>0</td>
<td>0</td>
<td>300,000</td>
<td>0.00%</td>
<td></td>
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<tr>
<td>MetroRapid Stations Relocation</td>
<td>59,171</td>
<td>176,321</td>
<td>238,000</td>
<td>98.95%</td>
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<tr>
<td>Saltillo Development Navasota and 5th intersection bulb out</td>
<td>0</td>
<td>0</td>
<td>175,000</td>
<td>0.00%</td>
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<tr>
<td>Bus Stop Signage</td>
<td>19,725</td>
<td>100,782</td>
<td>123,940</td>
<td>97.23%</td>
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<tr>
<td>Auxiliary Power Cords for DT Station</td>
<td>34,229</td>
<td>0</td>
<td>34,230</td>
<td>100.00%</td>
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<tr>
<td>North Lamar Mobility Hub - Construction</td>
<td>0</td>
<td>17</td>
<td>4,777</td>
<td>0.35%</td>
<td></td>
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<tr>
<td>Return Track at Rail Maintenance Facility</td>
<td>32,328</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
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</tbody>
</table>

| Total Facilities                                                         | $5,670,576  | $18,643,352 | $103,938,113| 23.39%      |
## Contingency

<table>
<thead>
<tr>
<th>Description</th>
<th>Budgeted</th>
<th>Actual</th>
<th>Variance</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Project Contingency FY23</td>
<td>0</td>
<td>10,247,677</td>
<td>0.00%</td>
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</tr>
<tr>
<td>FY2023 Capital Project Multiyear Rollover and Miscellaneous</td>
<td>0</td>
<td>592,934</td>
<td>0.00%</td>
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</tr>
<tr>
<td><strong>Total Contingency</strong></td>
<td><strong>$0</strong></td>
<td><strong>$10,840,611</strong></td>
<td><strong>0.00%</strong></td>
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</tr>
</tbody>
</table>

### Information Technology

<table>
<thead>
<tr>
<th>Description</th>
<th>Budgeted</th>
<th>Actual</th>
<th>Variance</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Resource Planning System</td>
<td>4,459,039</td>
<td>1,692,404</td>
<td>2,766,635</td>
<td>143.95%</td>
</tr>
<tr>
<td>Data Warehouse and Business Intelligence Enhancements</td>
<td>1,326,467</td>
<td>1,643,212</td>
<td>316,745</td>
<td>102.12%</td>
</tr>
<tr>
<td>Customer Payment Systems</td>
<td>300,886</td>
<td>818,719</td>
<td>517,833</td>
<td>160.50%</td>
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<tr>
<td>Enterprise Customer Relationship Management System</td>
<td>984,792</td>
<td>17,716</td>
<td>967,076</td>
<td>91.09%</td>
</tr>
<tr>
<td>Enterprise Asset Management System</td>
<td>64,455</td>
<td>46,607</td>
<td>17,848</td>
<td>48.04%</td>
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<tr>
<td>Data Center Infrastructure</td>
<td>0</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>0.00%</td>
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<tr>
<td>Network Infrastructure Replacement</td>
<td>522,660</td>
<td>306,746</td>
<td>215,914</td>
<td>41.17%</td>
</tr>
<tr>
<td>Rail Dispatch Control System Replacement</td>
<td>4,542</td>
<td>85,222</td>
<td>80,680</td>
<td>177.86%</td>
</tr>
<tr>
<td>High Frequency TVM Expansion</td>
<td>0</td>
<td>780,000</td>
<td>780,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Demand Response Transit System</td>
<td>29,443</td>
<td>591,102</td>
<td>561,659</td>
<td>188.15%</td>
</tr>
<tr>
<td>ePaper DMS for BRT &amp; Rail Plus IDIQ</td>
<td>0</td>
<td>500,000</td>
<td>500,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>CAD_AVL, APC and ITS Systems Replacement</td>
<td>0</td>
<td>500,000</td>
<td>500,000</td>
<td>0.00%</td>
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<tr>
<td>Project Portfolio Management System</td>
<td>296,441</td>
<td>423,100</td>
<td>126,659</td>
<td>42.60%</td>
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<tr>
<td>Single Sign-On Solution</td>
<td>0</td>
<td>400,000</td>
<td>400,000</td>
<td>0.00%</td>
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<tr>
<td>On Board Fare Validator Expansion</td>
<td>28,379</td>
<td>364,070</td>
<td>335,691</td>
<td>118.11%</td>
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<tr>
<td>Rail Configuration Management System</td>
<td>0</td>
<td>350,000</td>
<td>350,000</td>
<td>0.00%</td>
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<tr>
<td>Enterprise Audio Visual Solution</td>
<td>0</td>
<td>294,712</td>
<td>294,712</td>
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<tr>
<td>MetroBike software and hardware licensing agreement</td>
<td>0</td>
<td>250,000</td>
<td>250,000</td>
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<tr>
<td>Agency Wide Messaging System</td>
<td>0</td>
<td>225,000</td>
<td>225,000</td>
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<tr>
<td>Mobile On Time Performance System Expansion</td>
<td>2,360</td>
<td>208,500</td>
<td>206,140</td>
<td>8.69%</td>
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<td>Cap Metro Station WiFi</td>
<td>122,003</td>
<td>181,500</td>
<td>59,497</td>
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<td>Phone System Replacement</td>
<td>276,988</td>
<td>174,245</td>
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<td>SharePoint Platform Infrastructure and System wide configuration</td>
<td>0</td>
<td>150,000</td>
<td>150,000</td>
<td>0.00%</td>
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<tr>
<td>Governance Risk and Compliance Software Project</td>
<td>313,283</td>
<td>150,000</td>
<td>163,283</td>
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<tr>
<td>Rail Scheduling Software</td>
<td>0</td>
<td>140,000</td>
<td>140,000</td>
<td>0.00%</td>
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<tr>
<td>Police Department Office Productivity</td>
<td>0</td>
<td>125,000</td>
<td>125,000</td>
<td>0.00%</td>
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<tr>
<td>Operator Remote Scheduling - Trapeze OPS Web</td>
<td>0</td>
<td>125,000</td>
<td>125,000</td>
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<tr>
<td>Web GIS ArcSDE ArcGIS Server Portal Upgrade</td>
<td>0</td>
<td>100,000</td>
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<tr>
<td>CapMetro Website Platform Upgrade</td>
<td>68,658</td>
<td>92,800</td>
<td>24,142</td>
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<tr>
<td>Digital Asset Management</td>
<td>0</td>
<td>91,796</td>
<td>91,796</td>
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<tr>
<td>Stadler DMU RCU Upgrade</td>
<td>0</td>
<td>89,400</td>
<td>89,400</td>
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Page 3 of 5
### Information Technology (continued)

<table>
<thead>
<tr>
<th>Description</th>
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<th>Budget</th>
<th>% Increase/Decrease</th>
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</thead>
<tbody>
<tr>
<td>Police Department Radio/Recording</td>
<td>0</td>
<td>0</td>
<td>75,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Police Department Evidence Control System</td>
<td>0</td>
<td>0</td>
<td>75,000</td>
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<tr>
<td>Police Department CAD &amp; RMS</td>
<td>0</td>
<td>0</td>
<td>62,500</td>
<td>0.00%</td>
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<tr>
<td>Police Department Body Cameras</td>
<td>0</td>
<td>0</td>
<td>62,500</td>
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<td>Access Request System Replacement to AX</td>
<td>52,314</td>
<td>18,130</td>
<td>60,000</td>
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<tr>
<td>Community Engagement Software</td>
<td>0</td>
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<tr>
<td>IT ServiceDesk System Replacement (ServiceNow replacement)</td>
<td>0</td>
<td>0</td>
<td>40,000</td>
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<tr>
<td>Police Department Cell phone &amp; Related Applications</td>
<td>0</td>
<td>0</td>
<td>25,000</td>
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<tr>
<td>Transit On-Demand Software</td>
<td>0</td>
<td>21,916</td>
<td>21,916</td>
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<td>Bytemark Mobile Point of Sale</td>
<td>78,629</td>
<td>9,318</td>
<td>15,400</td>
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<tr>
<td>Police Department In-Car Video Systems</td>
<td>0</td>
<td>0</td>
<td>15,000</td>
<td>0.00%</td>
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<tr>
<td>APC Real Time</td>
<td>45,414</td>
<td>20,346</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Board Management System Replacement</td>
<td>15,189</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
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<tr>
<td><strong>Total Information Technology</strong></td>
<td>$8,991,942</td>
<td>$5,922,058</td>
<td>$22,788,783</td>
<td>65.44%</td>
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### Freight Railroad

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<th>Budget</th>
<th>% Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Replacement</td>
<td>0</td>
<td>30,288</td>
<td>1,742,329</td>
<td>1.74%</td>
</tr>
<tr>
<td>Crossings Improvements Reimbursed by TxDOT</td>
<td>0</td>
<td>0</td>
<td>45,000</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total Freight Railroad</strong></td>
<td>$0</td>
<td>$30,288</td>
<td>$1,787,329</td>
<td>1.69%</td>
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### Project Connect

<table>
<thead>
<tr>
<th>Description</th>
<th>Initial</th>
<th>Final</th>
<th>Budget</th>
<th>% Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>MetroRapid Pleasant Valley</td>
<td>3,544,050</td>
<td>6,938,291</td>
<td>36,724,000</td>
<td>28.54%</td>
</tr>
<tr>
<td>MetroRapid Expo Center</td>
<td>5,158,558</td>
<td>8,575,649</td>
<td>34,516,000</td>
<td>39.79%</td>
</tr>
<tr>
<td>McKalla Double Track Drainage and Signals</td>
<td>14,123,830</td>
<td>7,918,600</td>
<td>23,200,000</td>
<td>95.01%</td>
</tr>
<tr>
<td>MetroRapid Menchaca-South Lamar</td>
<td>378,247</td>
<td>378,836</td>
<td>18,000,000</td>
<td>4.21%</td>
</tr>
<tr>
<td>Project Connect - Orange Line</td>
<td>6,311,153</td>
<td>4,727,074</td>
<td>16,000,000</td>
<td>68.99%</td>
</tr>
<tr>
<td>MR Expo &amp; PV P&amp;R and EOL Charging</td>
<td>1,255,092</td>
<td>1,112,614</td>
<td>16,000,000</td>
<td>14.80%</td>
</tr>
<tr>
<td>MLS Rail Station</td>
<td>8,053,035</td>
<td>7,887,978</td>
<td>15,100,000</td>
<td>105.57%</td>
</tr>
<tr>
<td>Project Connect - Blue Line</td>
<td>6,893,313</td>
<td>4,206,158</td>
<td>15,000,000</td>
<td>74.00%</td>
</tr>
<tr>
<td>MetroRapid Gold Line</td>
<td>153,495</td>
<td>553,206</td>
<td>11,000,000</td>
<td>6.42%</td>
</tr>
<tr>
<td>Broadmoor Rail Development</td>
<td>239,225</td>
<td>0</td>
<td>10,800,000</td>
<td>2.22%</td>
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<tr>
<td>Project Connect – Program Management</td>
<td>4,310,630</td>
<td>2,361,118</td>
<td>10,000,000</td>
<td>66.72%</td>
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<tr>
<td>MR S Lamar &amp; Gold Lines P&amp;R and EOL Charging</td>
<td>0</td>
<td>1,951</td>
<td>8,900,000</td>
<td>0.02%</td>
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<tr>
<td>MetroExpress Park &amp; Rides</td>
<td>(2,763)</td>
<td>2,800</td>
<td>100,000</td>
<td>0.04%</td>
</tr>
<tr>
<td><strong>Total Project Connect</strong></td>
<td>$50,417,865</td>
<td>$44,664,275</td>
<td>$215,340,000</td>
<td>44.15%</td>
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### Commuter Rail

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Good Repair - Bridge and Track</td>
<td>0</td>
<td>4,939</td>
<td>4,019,838</td>
<td>0.12%</td>
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<tr>
<td>Domain Area Quiet Zone</td>
<td>0</td>
<td>740,000</td>
<td>2,200,000</td>
<td>33.64%</td>
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<tr>
<td>Lakeline Leander Siding</td>
<td>1,217,600</td>
<td>161,024</td>
<td>1,984,164</td>
<td>69.48%</td>
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<tr>
<td>Track Undercutting</td>
<td>123,400</td>
<td>790,000</td>
<td>1,500,000</td>
<td>60.89%</td>
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<tr>
<td>Grade Crossing Signal Health Monitoring</td>
<td>0</td>
<td>0</td>
<td>1,300,000</td>
<td>0.00%</td>
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<tr>
<td>PTC Optimization</td>
<td>0</td>
<td>395,621</td>
<td>1,028,000</td>
<td>38.48%</td>
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<tr>
<td>State of Good Repair for Rail Grade Crossings</td>
<td>376,883</td>
<td>2,252</td>
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<td>54.95%</td>
</tr>
<tr>
<td>Crossings Improvements Reimbursed by TxDOT</td>
<td>0</td>
<td>0</td>
<td>300,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Air Treatment System</td>
<td>0</td>
<td>0</td>
<td>240,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Laptops - Commuter Rail Vehicle Maintenance</td>
<td>0</td>
<td>0</td>
<td>150,000</td>
<td>0.00%</td>
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<tr>
<td>Rail Signal Vital Sim Software</td>
<td>0</td>
<td>0</td>
<td>15,000</td>
<td>0.00%</td>
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<tr>
<td>Rail Vehicle Engineering and Commissioning Support</td>
<td>4,891</td>
<td>1,320</td>
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<td>0.00%</td>
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<tr>
<td>DMU Cooling Modification</td>
<td>165,560</td>
<td>740</td>
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**Total Commuter Rail**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>$1,888,333</td>
<td>$2,095,895</td>
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### Property & Asset Management

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Response Operations &amp; Maintenance Facility Replacement</td>
<td>777,995</td>
<td>508,715</td>
<td>15,098,895</td>
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<td>Realignment Additional Lease Space</td>
<td>0</td>
<td>0</td>
<td>5,500,000</td>
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<tr>
<td>1705 Guadalupe Level 1 Purchase</td>
<td>0</td>
<td>117,845</td>
<td>4,649,400</td>
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<td>PAM Enhancement Capital Program</td>
<td>396,070</td>
<td>806</td>
<td>4,101,226</td>
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<tr>
<td>PAM SOGR Capital Program</td>
<td>192,954</td>
<td>103,339</td>
<td>2,707,567</td>
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<tr>
<td>Transit Police Station</td>
<td>0</td>
<td>0</td>
<td>1,477,000</td>
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<td>PAM Safety Capital Program</td>
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<td>690,200</td>
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<tr>
<td>Maintenance Office Renovation</td>
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<td>490,000</td>
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<td>Health Clinic</td>
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<td>162,417</td>
<td>375,000</td>
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<tr>
<td>MetroBike New Operations and Admin Facility Lease Remodel</td>
<td>0</td>
<td>0</td>
<td>375,000</td>
<td>0.00%</td>
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<tr>
<td>Space Utilization Change Management Related Renovations at 209, 507, 51</td>
<td>1,677</td>
<td>44,658</td>
<td>375,000</td>
<td>12.36%</td>
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</table>

**Total Property & Asset Management**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$1,451,700</td>
<td>$982,780</td>
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### Security

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
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<th>Total Cost</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video System Integration Software</td>
<td>0</td>
<td>0</td>
<td>542,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Access Control System Replacement</td>
<td>0</td>
<td>0</td>
<td>300,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Camera Replacements and Enhancements</td>
<td>61,432</td>
<td>0</td>
<td>260,000</td>
<td>23.63%</td>
</tr>
<tr>
<td>Rapid Deployable Video System</td>
<td>22,329</td>
<td>0</td>
<td>150,000</td>
<td>14.89%</td>
</tr>
<tr>
<td>Vehicle Camera System</td>
<td>4</td>
<td>0</td>
<td>100,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Rail House Signal Security Enhancements</td>
<td>6,196</td>
<td>56,315</td>
<td>63,000</td>
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<tr>
<td>Lobby Check in System</td>
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**Total Security**

<table>
<thead>
<tr>
<th>Quantity</th>
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<th>Total Cost</th>
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</thead>
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<tr>
<td></td>
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<td>$89,961</td>
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### Grand Total

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<td>$88,077,696</td>
<td>$98,438,589</td>
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<tr>
<td>Board of Directors</td>
<td><strong>Item #:</strong> AI-2023-839</td>
<td><strong>Agenda Date:</strong> 6/26/2023</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------</td>
<td>--------------------------</td>
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</tr>
<tr>
<td></td>
<td><strong>Memo:</strong> May Board Follow-up (June 26, 2023)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To: CapMetro Board of Directors
From: Kerri Butcher, Deputy CEO
Date: June 26, 2023
Subject: May Board meeting Follow Up

During the May 2023 meeting of the CapMetro Board of Directors, several public speakers discussed their concerns on a few topics. Additional information on these topics is provided here for your review. If you are interested in additional details or a briefing, please contact Ed Easton (Ed.Easton@CapMetro.org). Topics covered in this memo include:

- Mueller Neighborhood Association
- Bus stops and benches
- Data dashboard

**Mueller Neighborhood Association**

Ms. May Taylor, a member of the Mueller Neighborhood Association, mentioned in her public comment, a letter sent to the Board on May 22 from the Mueller Neighborhood Association Chair, Greg Keller. The letter references the August 2023 proposed service changes and bus stop upgrades for the CapMetro Rapid routes in the neighborhood. Specifically, Ms. Taylor spoke about route 335 and the temporary reduction in service, operating on a 30-minute frequency rather than 15 minutes.

CapMetro continues to be cautious regarding restoring service. We are seeing improved service delivery each day thanks to the improvements in operator and mechanic recruiting and retention, but we are not yet equipped to provide additional service on Route 335 along with Route 18, Express & E-Bus. Weekend service is also still reduced on multiple high-frequency routes. The process of when and how we restore service is proving to be iterative and somewhat unpredictable given the number of factors that influence this process -- recruitment, successful hiring, availability of vehicles, and replacements parts to name a few. CapMetro wants to ensure that the restoration of these services does not negatively impact our ability to deliver service as our recent improvements in service delivery is resulting in increased ridership.

Specific to Route 335, it has seen lower ridership recovery than other frequent routes. Even prior to the pandemic, 335 ridership was the lowest among CapMetro’s high-frequency routes. A key metric, riders per service hour, demonstrates that there is no justification at this time for increasing frequency on this route when compared to other resource needs. While we have made great strides towards having stable vehicle, operator and mechanic availability, we are not operating in excess and still must consider factors such as these when determining which routes receive our limited resources. We will continue to monitor the 335 and other reduced frequency services.
The letter also requests that stop amenities in the neighborhood planned for the CapMetro Rapid routes are upgraded to include shade shelters, trash cans, etc. The association is further requesting the prompt installation of these amenities so riders can begin using them.

Four of the six CapMetro Rapid Station platforms assigned to the Mueller neighborhood have been constructed. The remaining two platforms (Barbara Jordan) will be completed in the next few months. All six locations will also be utilized by regular fixed route service. We intend to install the amenities in advance of the planned 2025 launch of the CapMetro Rapid service. Our CapMetro Rapid shelters, benches, etc. are in production now and we are targeting their installation at the Mueller area stations this fall.

A response letter detailing these updates was sent to the Mueller Neighborhood Association on June 8th.

**Bus stops and benches**

Ms. Sara Black advised that there is no bus stop across from the CapMetro bus stop ID 5558. Her concerns were specifically for her friend with a disability who, to have a shorter walk, must take an extra bus to get to his destination. In addition, she observed that benches were recently taken away at CapMetro bus stop ID 6183 at Loyola and Decker and the corresponding stop across the street.

We recognize that a stop across from Stop ID 5558, west of Johnny Morris on Loyola, would be useful for our customers. We have not installed a stop at this location due to concerns about a safe crossing on Loyola. The City of Austin’s Transit Enhancement Program also recognizes this concern, and the need for a stop. The draft Transit Enhancement Report will recommend an enhanced pedestrian crossing at this location and a new eastbound bus stop. The report should be finalized this summer and the top projects will be prioritized for design and construction in FY 24-25. As a reminder, the Transit Enhancement Program was funded at $19M with the 2020 Mobility Bond.

Moreover, the benches at Loyola and Decker were removed due to a temporary safety issue at both locations. The benches were replaced within 48 hours of Ms. Black’s public comment to the Board.

**Data Dashboard**

Mr. Ruven Brooks commented on CapMetro’s new performance dashboard. Specifically, his concerns were that the data is no longer available monthly, and the limited opportunities made available for the community to provide input. He states he was aware of only one public meeting. Mr. Brooks also requested at-stop level data to be added to the dashboard.

**Monthly Data**

As part of CapMetro’s continuing commitment to transparency, we have rolled out a new and improved performance dashboard with access to useful data to help key stakeholders
better understand how our organization is performing. Additionally, the performance dashboard is more digitally accessible than ever before to make the information more usable and accessible to all members in the community, including those with disabilities.

The new dashboards have been developed with the previous model in mind. Monthly ridership data is available to the public on the new dashboard and CapMetro has included different dimensions of data available to the consumers of the data. We have included ridership by month, route, and mode.

**Public Involvement**

CapMetro appreciates the value of public comment and involvement in projects that impact the public. In this process, staff sought the advice of both board appointed citizen advisory committees to provide input and advise on developing the dashboard tool. The dashboard was presented to both the Customer Satisfaction Advisory Committee and the Access Advisory committee. Staff will consider the expanded communication opportunities for any future roll out of the dashboard.

**Data Request**

CapMetro will consider stop level data in a future expansion of the dashboards. For now, the public is welcome to make stop level data requests on an as-needed basis. With over 3,500 bus stops across the service area, given the level of data granularity, bus stop level data was not considered for the initial project scope.

In the next few months, staff will also be introducing a dashboard to measure the performance of the key performance indicators outlined in the strategic plan. This dashboard will serve as a scorecard to ensure staff are focusing on the performance of key initiatives highlighted in the strategic plan.