



Board Report

File #: 2023-0319, **File Type:** Motion / Motion Response

Agenda Number: 23.

**EXECUTIVE MANAGEMENT COMMITTEE
OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE
JUNE 15, 2023**

SUBJECT: STATUS UPDATE - BUS STOP IMPROVEMENT PROGRAM

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Bus Stop Improvement Plan status report.

ISSUE

A great transit experience starts at the bus stop or rail station. While Metro provides the transit service, the responsibility for maintaining bus stops falls on the 88 local cities and unincorporated areas of LA County that Metro and local bus lines serve. However, Metro is committed to improving the experience of the region's bus customers by collaborating and coordinating with local jurisdictions to ensure their residents who ride Metro and local buses have access to bus stops that are comfortable, well-designed and well-maintained.

Staff researched bus stop locations throughout the County and identified several areas where coordination between Metro and local jurisdictions is limited. In response to Motion 20 (2023-0184) by Directors Hahn, Mitchell, Najarian, Dupont-Walker and Horvath (Attachment A), staff is developing a Bus Stop Improvement Program (BSIP) that will provide regional coordination and inspire local jurisdictions to install bus stops that meet bus customers' needs and expectations. These are in addition to the ongoing efforts already underway in multiple jurisdictions throughout Los Angeles County.

This Receive and File report provides a status on the Bus Stop Improvement Program.

BACKGROUND

Metro is Los Angeles County's largest transit provider, with over 110 local bus routes that serve customers at more than 12,000 bus stops that are owned by various local jurisdictions. Metro's extensive service coverage provides essential transportation for residents across the County, with bus riders accounting for at least 70% of total Metro ridership. In 2022, 83% of Metro Bus riders used the service at least three days a week.

Customers rely on Metro's service for a safe, reliable, and convenient transportation experience, and the agency is constantly working to improve services. Bus stop amenities that enhance the customer experience include street lighting, benches, shelters, and trash receptacles. However, Metro does not own or maintain the majority of bus stops served by Metro buses. While Metro owns the bus stop signs and signposts at most bus stops, each municipality is responsible for installing and maintaining bus stop infrastructure, including amenities and furniture. This leads to inconsistencies in the quality of bus stops across the region with many lacking the most basic amenities. Metro recognizes that municipalities have their unique priorities and competing needs.

There are numerous examples of Metro-initiated efforts that already provide guidance on how to enhance infrastructure, access, and experience at bus stops. These include:

- First/Last Mile Strategic Plan (2014),
- Transfers Design Guide (2018),
- Metro Program Management Plan (2016),
- Metro Vision 2028 Strategic Plan (2018),
- Understanding How Women Travel (2019),
- Metro Integrated Station Design Solutions (2018-2021),
- Customer Experience Plan (2020, 2022),
- Metro Sustainability Strategic Plan (2020),
- Metro Long-Range Transportation Plan (2020),
- Metro Transit Service Policies and Standards (2020),
- Better Bus Program Full Strategy (2021),
- Metro Adjacent Development Handbook (2021),
- LA28 Mobility Concept Plan (2022/23), and
- Gender Action Plan (2022).

Local jurisdictions develop guidelines for bus stop enhancements and determine funding sources as a possible means to implement bus stop improvements. Through the preceding programs, studies, and initiatives, Metro is committed to proactively continue working with local municipalities in finding ways to improve the customer experience at all bus stops in our region.

Funding sources such as Local Return from Proposition A, Proposition C, Measure R, and Measure M are eligible for bus stop improvements. Working together, Metro and local leaders can ensure that customers have access to safe and well-maintained bus stops that meet their needs.

By building strong relationships with municipalities and other regional transit providers who use city bus stops, Metro can work collaboratively to find innovative solutions to enhance bus stop infrastructure and amenities.

DISCUSSION

For the majority of Metro customers, bus stops are the point of entry into the Metro system, and a safe and comfortable waiting space is essential in encouraging people to choose public transit as their preferred mode of transportation. Prioritizing improvements at high-ridership bus stops and ensuring they are safe, accessible, and clean is of utmost importance. The absence of lighting at bus

stops creates a feeling of an unsafe environment, while the lack of shelters or shade exposes riders to extreme weather conditions. Additionally, a lack of seating can be particularly challenging for people with limited mobility and for older adults. Unclean bus stops also discourage residents from fully utilizing the Metro system. Waiting in the heat with no protection from the sun and no seat can be a difficult daily experience for many bus riders and can even deter some from taking public transit altogether. Considering that the average trip taken on Metro Bus is less than five miles, and around half of the journey time is spent waiting for the bus, the waiting environment significantly affects a bus rider's experience. Bus stops are also the visible face of Metro in many communities, and when the waiting environment is inviting and comfortable, it enhances the image of public transportation and Metro as a whole.

According to Metro's 2022 *Customer Experience Plan*, of the 12,268 bus stops, only 46% have seating, 24% have a shelter, 56% have streetlights within 50 feet, and more than half of stops lack important provisions for people with limited mobility.

To improve the regional bus stop infrastructure, staff continues to actively collaborate with the region's Councils of Government (COGs) and local jurisdictions and coordinate with other transit agencies that share bus stops with Metro. Working together is the key to ensuring the region's transit customers have access to safe, clean, and convenient bus stops that meet their needs.

In addition, the BSIP aims to improve regional bus stop infrastructure by gathering all available technical information and potential funding sources related to bus stops and their improvements and making it available in a portal. The BSIP provides a collective vision and approach that considers the needs of county residents who use Metro and other transit partners options daily, while balancing local jurisdictions operational constraints and realities. Through the BSIP, Metro aims to facilitate the implementation of strategies that will improve regional bus stop locations and enhance the overall transit experience for all bus riders.

Working with stakeholders in the City and County of Los Angeles, representatives from non-governmental and community-based organizations, and other stakeholders, Metro is developing the Bus Stop Improvement Program that includes the following:

- Methodology on how to prioritize bus stop investments in our region;
- Exploration of applicable *global* best practices that could further enhance the bus stop experience and increase bus stop investments;
- Partnering strategies with regional stakeholders to create community support and accountability in installing and maintaining bus stop investment benefits over time; and
- Explanation of Metro's funding role for bus stop investments.

Metro envisions bus stops as functioning community assets. Bus stops should inform users of upcoming arrivals or service disruptions; they should shelter riders from heat and rain; and they should be activated and transformed into points of civic pride. Metro is prioritizing improvements to bus stops in Equity Focused Communities (EFC).

In an attempt to develop an initial prioritized list of bus stop improvement locations to assist local

jurisdictions, Metro enhanced its existing GIS tool to map all the bus stops that are used by Metro including those shared with other transit providers in the region with multiple layers of data that include:

- Equity Focused Communities and Disadvantaged Communities (DAC) data,
- California Heat Assessment Tool (CHAT) data,
- Public Safety Incident reports from national, state, and local law enforcement agencies,
- Street Light Proximity,
- Tree canopy coverage, and
- Ridership.

Staff used the preceding as equally weighted criteria to rank the over 12,000 Metro bus stops. A total score was calculated for each bus stop, with a maximum possible normalized value of 100. All 12,000+ stops were then sorted by the total score; the bus stop with the highest score ranked first.

An initial list of 1,500 priority bus stop locations was identified. These include 750 stops within the City of Los Angeles, and 750 bus stops in unincorporated Los Angeles County. Staff has also mapped onto the GIS tool using the above criteria priority locations that could be found in each of the 62 other jurisdictions where Metro's buses stop. The intent of the initial mapping effort is to understand how bus stop investments already being addressed by the cities and the County of Los Angeles could align with those bus stops that Metro identified as high priority.

Attachment B lists the 153 bus stops in the region that have scored the highest based on the above criteria. This is an initial list based on the data available to staff and using the criteria and prioritization process described above. *The list is subject to re-prioritization as we engage with stakeholders based on location-specific information.*

REGIONAL BUS STOP PORTAL

Staff is developing a Bus Stop Resource Portal that will be a one-stop-shop for all the tools, resources, and information necessary to carry out regional bus stop improvement efforts. The portal will feature the Metro GIS tool with multiple analytical capabilities and map outputs, the documents previously mentioned, and other technical tools and best practice resources for bus stop design.

Additionally, the portal will include information on potential funding and grant sources for bus stop improvements and a directory of key staff working on bus stops in each of the local jurisdictions. Staff anticipates launching the portal in Fall 2023 and looks forward to providing this valuable resource to our stakeholders. This portal will be public facing with all the resources downloadable for use by anyone in the region; especially by our strategic partners who are involved in regional bus stop work and improvements.

BUS STOP SUMMIT

Metro serves a vast population of 13 million people, which necessitates the provision of inclusive services for all abilities.

On May 8, 2023, Metro staff kicked off the development of a bus stop summit to bring together stakeholders interested in improving bus stops. The summit will be held in Winter 2023/24. The summit is expected to consist of a series of charettes, plenary sessions, technical sessions, exhibitions, and field trips.

The charettes are planned to involve advocacy organizations, youth groups, staff from local jurisdictions, academic partners, and residents to discuss the needs of customers, particularly older adults and people with mobility impairments; and how bus stops can be improved to enhance access and safety for these users. The summit is also anticipated to feature several sessions, including plenary sessions, technical sessions, an exhibition of prototypes of bus stop amenities, and site visit field trips. The plenary sessions will have keynote speakers and industry leaders discussing a wide range of topics, such as new technologies, policy trends, and sustainable development related to bus stops. The technical sessions will have focused discussions on specific aspects of bus stops, allowing experts to share their knowledge and expertise.

Additionally, the exhibition is also expected to showcase the latest products and innovations related to bus stops. This will allow attendees to experience new technologies and products that can help improve bus stops and make them more accessible and user-friendly. Finally, the site visit field trips will allow participants to visit bus stop locations and better understand site-specific challenges associated with bus stops and amenities.

Staff has begun outreach to organize with and promote the summit to the Metro Sustainability Council, Metro's Technical Advisory Committee, City and County of LA, other cities in the County of LA, General Managers of regional transit providers, various Non-Governmental Organizations and Community-Based Organizations, aging and disabled community members, the region's colleges and universities, potential public and private partnership organizations, and others.

Staff is also exploring bus stop policy and infrastructure research collaboration work with UCLA and USC, alongside research institutions that are not based in universities.

FUNDING

Metro has implemented sales tax measures R (2008) and M (2016), and Proposition A (1980) and Proposition C (1990) to improve LA County's local public transit, paratransit, and related transportation infrastructure; an apportionment of funding is distributed directly as pass-through funds to municipalities on a per-capita basis as "Local Return" funding. Municipalities may utilize Local Return funding for bus stop improvements, but funding is discretionary, and cities may apply funding for other defined uses. Metro continues to compile an inventory of potential transportation funding sources to share with local jurisdictions and assist them in delivering bus stop improvements. These funding sources include Metro-controlled and pass-through sources as well as formula and competitive programs. Depending on the project, local return funding could be used by cities and municipal transit operators to fund their local bus stop capital, maintenance, and program expenses.

All available funding information, including potential grants, will be made available in the Regional

Bus Stop Portal as well as discussed in more detail during the Bus Stop Summit.

AUDIT

Metro conducts yearly audits of local return funding. As part of these audits moving forward, Metro will review if local jurisdictions spend their money on bus stop improvements.

The audit will help to identify how much money is being spent on bus stops and could identify areas where a jurisdiction is spending less on bus stops but with a high demand for public transportation. This would help inform which jurisdictions should allocate deobligated funds to improve the public transportation infrastructure in those areas.

Through Metro's intervention, a more coordinated effort could lead to a program that can adequately monitor and improve upon regional bus stop investment.

OTHER ACTIVITIES

Over and above these activities that respond to Board Motion 20, Metro staff is also tracking AB64 (Bryan) related to street furniture data. This bill requires the California Department of Transportation (Caltrans) to develop guidelines for data sharing, documentation, public access, quality control, and promotion of open-source and accessible platforms and decision support tools related to street furniture data; and requires Caltrans, in consultation with the Office of Planning and Research, to use the California Minimum General Transit feed Specification guidelines to integrate statewide and publicly accessible street furniture data on a statewide integrated data platform.

EQUITY PLATFORM

Demographic data from Metro's 2022 Customer Experience Rider Survey shows that:

- 83% of Metro riders reported a household income of under \$50,000 a year;
- 83% of riders use Metro Bus at least three days a week;
- Metro Bus service improvements implemented as part of the NextGen Bus Plan increased access to frequent service (10 minutes or better) by 20%.

Metro adopted Equity Focus Communities in 2019 to identify the greatest transportation needs and updated the designation in 2022. EFCs identify and focus improvements on locations where there are higher concentrations of residents with mobility barriers (households earning less than \$60,000 per year), Black, Indigenous, and People of Color (BIPOC) populations, and households that do not have a car. There are 6,559 Metro bus stops located in DACs and 4,673 Metro bus stops located in EFCs. Only approximately 15% of Metro bus stops in EFCs and 19% of Metro bus stops in DACs have a shelter or are located within two feet of tree canopy. Therefore, it is inevitable that these populations are most susceptible to the public health impacts of increasing temperatures brought about by extreme weather events.

The Bus Stop Shelter Improvement Program aims to provide the guidance and support to municipalities to enhance existing bus stop conditions in their jurisdictions. The program will provide the opportunity to improve upon the following baseline conditions based on the 2022 Customer

Experience Plan data:

- 24% Metro bus stops that have shelters;
- 46% Metro bus stops that have seating;
- 56% Metro bus stops that have street lights within 50 feet; and
- 2% Metro bus stops that have real-time information displays.

Many of the initially prioritized bus stop locations identified in EFCs will be receiving the greatest benefits from the implementation of the program. As DACs were also part of the analysis, ensuing programs, outreach, and investments are also areas that will benefit from this program as they also overlap with EFCs.

As Los Angeles prepares to host the 2028 Summer Olympic and Paralympic Games, enhancing regional bus stop infrastructure will require active facilitation with LA County and the 63 jurisdictions Metro serves, along with continuous coordination with the transit agencies that share bus stops with Metro. Metro embraces the opportunity to work collectively with county jurisdictions to provide world-class bus stops that residents of Los Angeles County need and deserve.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This report supports Metro's second and fourth Strategic Plan Goals. Goal 2: Deliver outstanding trip experiences for all users of the transportation system. Goal 4: Transform LA County through regional collaboration and national leadership.

Further, the Bus Stop Improvement Program is a direct response to the priority needs outlined in Motion 20, and those needs identified in Metro customer experience surveys and in the 2022 Metro Customer Experience Plan to improve bus stops as gateways to the Metro system. Consequently, improvement on Metro's bus stops will also translate to anticipated improvements on bus stops that Metro shares with other transit agencies.

NEXT STEPS

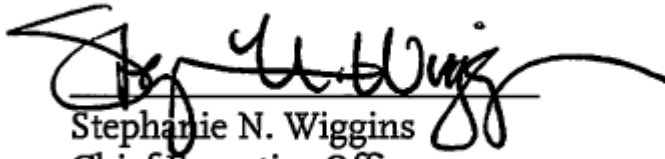
1. Continue outreach to local stakeholder groups, cities, and Councils of Governments.
2. Launch the bus stop information portal by Fall 2023
3. Host the bus stop summit in Fall/Winter 2023/2024

ATTACHMENTS

Attachment A - Motion 20, Bus Stop Shelter Motion
Attachment B - List of Prioritized Bus Stops in the Region

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**Board Report**

File #: 2023-0184, **File Type:** Motion / Motion Response**Agenda Number:** 20.

**EXECUTIVE MANAGEMENT COMMITTEE
MARCH 16, 2023****Motion by:****DIRECTORS HAHN, MITCHELL, NAJARIAN, DUPONT-WALKER, AND HORVATH****Metro Bus Shelters Motion**

The overwhelming majority of transit riders taking Metro depend on buses for their travel. In the final three months of 2022, Metro buses handled a weekday average of approximately 646,000 boardings every day. Metro operates more than 110 bus routes and serves over 12,000 bus stops, owned by 63 jurisdictions.

As part of Metro's "Shade for All" effort in its 2022 Customer Experience Plan, Metro estimates that only 24% of bus stops served by Metro buses and other municipal transit operators have shelters, and only 46% have seating, which exacerbates conditions for people with limited mobility and older adults. Moreover, in the summer most of Metro's bus stops are located in areas where temperatures average 97 degrees in the middle of the day, and a shade structure could lower that temperature by 25 to 40 degrees. Additionally, at night, many bus stops lack lighting that make transit riders feel safer and more visible.

Bus shelters are almost always the responsibility of the local jurisdiction in which they are located. Several cities have invested heavily in providing shelters to support transit riders, but more can be done. Each city in LA County receives a local return from LA County's Propositions A and C and Measures R and M, which helps fund things like bus shelters, benches, and other local transit needs.

Metro has committed to providing technical assistance to cities, which is a step in the right direction. However, in many cases, cities may still not recognize the need, or may face other constraints. In these circumstances, Metro can provide its data and expertise to alleviate this glaring challenge across the Metro system. Metro can also help local jurisdictions with scarce resources deliver bus stop improvements.

SUBJECT: METRO BUS SHELTERS MOTION**RECOMMENDATION****APPROVE** Motion by Directors Hahn, Mitchell, Najarian, Dupont-Walker, and Horvath that the Board

direct the Chief Executive Officer to:

- A. Identify priority bus stops within each local jurisdiction based upon data, including but not limited to:
1. Ridership per line and stop;
 2. Existing bus stop amenities such as seating, shelters, and lighting
 3. Heat island index
 4. EFCs
 5. Safety related incidents over the last three year
- B. Share all available bus stop data with each applicable jurisdiction;
- C. Inventory transportation funding sources which can be leveraged to help local jurisdictions deliver bus stop improvements, including Metro-controlled and pass-through sources as well as both formula and competitive programs;
- D. Recommend technical, financial, and other ways for Metro to support bus stop improvements by local jurisdictions, prioritizing such improvements in Equity Focus Communities;
- E. In consultation with jurisdictions, host a bus stop summit to review the state of bus shelters, including examples of best practices and a vendor showcase;
- F. As part of the annual local return audit, report on the progress of installing and maintaining bus stop amenities by jurisdiction; and
- G. Report back on the above action items in 120 days.

Attachment B. List of Priority Bus Stop Locations in the Region

| STOP LOCATION | City | Council District | Supervisorial District | SCORE | | | | | | |
|--------------------------------|-----------------|------------------|------------------------|-------|-----------|---------------|-------|-------|-------|--------------|
| | | | | Light | Ridership | Public Safety | CHAT | DAC | EFC | Total Score* |
| WILSHIRE / ALVARADO | Los Angeles | 1 | 1 | 20.00 | 9.33 | 7.79 | 15.87 | 20.00 | 20.00 | 77.49 |
| WILSHIRE / ALVARADO | Los Angeles | 1 | 1 | 20.00 | 9.48 | 6.58 | 15.87 | 20.00 | 20.00 | 76.60 |
| 6TH / BONNIE BRAE | Los Angeles | 1 | 1 | 20.00 | 2.25 | 8.28 | 17.40 | 20.00 | 20.00 | 73.28 |
| PACIFIC / ZOE | Huntington Park | NA | 4 | 20.00 | 1.29 | 9.43 | 15.76 | 20.00 | 20.00 | 72.07 |
| 7TH / MAPLE | Los Angeles | 14 | 1 | 13.90 | 2.43 | 11.90 | 18.16 | 20.00 | 20.00 | 71.99 |
| GAGE / PACIFIC | Huntington Park | NA | 4 | 20.00 | 2.75 | 9.43 | 13.76 | 20.00 | 20.00 | 71.62 |
| 8TH / MAPLE | Los Angeles | 14 | 1 | 20.00 | 0.78 | 5.41 | 18.16 | 20.00 | 20.00 | 70.29 |
| VAN NUYS STATION | Los Angeles | 6 | 3 | 20.00 | 10.26 | 0.74 | 13.00 | 20.00 | 20.00 | 70.00 |
| 7TH / ALVARADO | Los Angeles | 1 | 1 | 20.00 | 5.80 | 4.78 | 13.36 | 20.00 | 20.00 | 69.95 |
| WESTERN / SLAUSON | Los Angeles | 8 | 2 | 19.71 | 5.97 | 3.84 | 13.80 | 20.00 | 20.00 | 69.43 |
| 8TH / SAN JULIAN | Los Angeles | 14 | 1 | 20.00 | 0.42 | 4.47 | 18.16 | 20.00 | 20.00 | 69.20 |
| TERMINAL 28 - EAST LOT | Los Angeles | 14 | 1 | 20.00 | 4.28 | 3.64 | 15.13 | 20.00 | 20.00 | 69.20 |
| SLAUSON / SOTO | Huntington Park | NA | 4 | 20.00 | 1.83 | 9.43 | 11.74 | 20.00 | 20.00 | 69.16 |
| CESAR E CHAVEZ / SOTO | Los Angeles | 14 | 1 | 18.18 | 5.90 | 2.20 | 16.18 | 20.00 | 20.00 | 68.71 |
| MARENGO / BRITTANIA | Los Angeles | 14 | 1 | 19.08 | 7.04 | 2.20 | 14.10 | 20.00 | 20.00 | 68.69 |
| SUNSET / WESTERN | Los Angeles | 13 | 3 | 20.00 | 3.85 | 5.97 | 12.58 | 20.00 | 20.00 | 68.67 |
| VAN NUYS / CHASE | Los Angeles | 6 | 3 | 20.00 | 5.81 | 2.90 | 13.57 | 20.00 | 20.00 | 68.56 |
| TERMINAL 28 - WEST LOT | Los Angeles | 14 | 1 | 20.00 | 3.59 | 3.55 | 15.13 | 20.00 | 20.00 | 68.55 |
| VERMONT / VERNON | Los Angeles | 9 | 2 | 20.00 | 4.63 | 2.09 | 15.51 | 20.00 | 20.00 | 68.52 |
| 6TH / WITMER | Los Angeles | 1 | 1 | 17.69 | 4.51 | 4.13 | 15.81 | 20.00 | 20.00 | 68.45 |
| SANTA MONICA / WESTERN | Los Angeles | 13 | 3 | 20.00 | 7.85 | 1.71 | 12.49 | 20.00 | 20.00 | 68.37 |
| HARBOR TRANSITWAY \ MANCHESTER | Los Angeles | 8 | 2 | 20.00 | 4.78 | 3.91 | 13.21 | 20.00 | 20.00 | 68.25 |
| SLAUSON / SEVILLE | Huntington Park | NA | 4 | 20.00 | 0.73 | 9.43 | 11.74 | 20.00 | 20.00 | 68.25 |
| SAN PEDRO / PICO | Los Angeles | 14 | 1 | 20.00 | 1.07 | 2.65 | 18.16 | 20.00 | 20.00 | 68.23 |
| 6TH / GRAND VIEW | Los Angeles | 1 | 1 | 20.00 | 0.66 | 7.83 | 13.36 | 20.00 | 20.00 | 68.21 |
| CENTRAL / OLYMPIC | Los Angeles | 14 | 1 | 20.00 | 1.67 | 1.98 | 18.16 | 20.00 | 20.00 | 68.17 |
| SOTO / SLAUSON | Huntington Park | NA | 4 | 20.00 | 0.61 | 9.43 | 11.74 | 20.00 | 20.00 | 68.15 |
| BROADWAY / WASHINGTON | Los Angeles | 9 | 2 | 20.00 | 3.33 | 3.32 | 14.88 | 20.00 | 20.00 | 67.94 |
| GRAND / 14TH | Los Angeles | 14 | 1 | 20.00 | 0.39 | 5.93 | 15.13 | 20.00 | 20.00 | 67.87 |
| ALVARADO / WILSHIRE | Los Angeles | 1 | 1 | 15.40 | 5.96 | 6.71 | 13.36 | 20.00 | 20.00 | 67.86 |
| GAGE / SALT LAKE | Huntington Park | NA | 4 | 20.00 | 0.12 | 9.43 | 11.87 | 20.00 | 20.00 | 67.84 |
| SLAUSON / BICKETT | Huntington Park | NA | 4 | 20.00 | 0.24 | 9.43 | 11.74 | 20.00 | 20.00 | 67.84 |
| FIRESTONE / GARDEN VIEW | South Gate | NA | 4 | 20.00 | 0.25 | 9.56 | 11.54 | 20.00 | 20.00 | 67.79 |
| FIRESTONE / GARDEN VIEW | South Gate | NA | 4 | 20.00 | 0.21 | 9.56 | 11.54 | 20.00 | 20.00 | 67.76 |
| VERMONT / 3RD | Los Angeles | 13 | 2 | 19.74 | 6.55 | 3.14 | 11.86 | 20.00 | 20.00 | 67.74 |
| CALIFORNIA / SOUTHERN | South Gate | NA | 4 | 20.00 | 0.18 | 9.56 | 11.36 | 20.00 | 20.00 | 67.58 |
| FLORENCE \ PACIFIC | Huntington Park | NA | 4 | 20.00 | 4.26 | 1.05 | 15.76 | 20.00 | 20.00 | 67.56 |
| SOTO / CESAR E CHAVEZ | Los Angeles | 14 | 1 | 15.65 | 6.91 | 2.22 | 16.18 | 20.00 | 20.00 | 67.47 |

*The total score is the sum of the six individual criteria scores, multiplied by a factor of 5/6, which normalizes the six criteria to a scale with a maximum score of 100.

| STOP LOCATION | City | Council District | Supervisorial District | SCORE | | | | | | |
|---|-----------------|------------------|------------------------|-------|-----------|---------------|-------|-------|-------|--------------|
| | | | | Light | Ridership | Public Safety | CHAT | DAC | EFC | Total Score* |
| WESTERN / HOLLYWOOD | Los Angeles | 13 | 3 | 20.00 | 3.01 | 5.12 | 12.58 | 20.00 | 20.00 | 67.26 |
| WESTERN / SLAUSON | Los Angeles | 8 | 2 | 20.00 | 3.05 | 3.84 | 13.80 | 20.00 | 20.00 | 67.24 |
| FLORENCE \ SEVILLE | Huntington Park | NA | 4 | 20.00 | 3.62 | 1.30 | 15.76 | 20.00 | 20.00 | 67.23 |
| SAN PEDRO / 14TH | Los Angeles | 14 | 1 | 20.00 | 0.38 | 2.07 | 18.16 | 20.00 | 20.00 | 67.17 |
| 7TH / GARLAND | Los Angeles | 1 | 1 | 20.00 | 1.04 | 7.05 | 12.51 | 20.00 | 20.00 | 67.16 |
| HARBOR TRANSITWAY \ SLAUSON | Los Angeles | 9 | 2 | 20.00 | 3.48 | 2.60 | 14.51 | 20.00 | 20.00 | 67.16 |
| VERMONT / VENICE | Los Angeles | 1 | 1 | 20.00 | 4.77 | 1.82 | 13.96 | 20.00 | 20.00 | 67.12 |
| MAIN / CESAR E CHAVEZ | Los Angeles | 14 | 1 | 20.00 | 0.00 | 6.98 | 13.55 | 20.00 | 20.00 | 67.11 |
| FIRESTONE / RHEEM | South Gate | NA | 4 | 20.00 | 0.27 | 9.56 | 10.68 | 20.00 | 20.00 | 67.10 |
| FIRESTONE / ALEXANDER | South Gate | NA | 4 | 20.00 | 0.27 | 9.56 | 10.68 | 20.00 | 20.00 | 67.10 |
| GAGE / PACIFIC | Huntington Park | NA | 4 | 14.56 | 2.68 | 9.43 | 13.76 | 20.00 | 20.00 | 67.02 |
| WILSHIRE / VERMONT | Los Angeles | 10 | 2 | 14.48 | 4.62 | 5.32 | 15.94 | 20.00 | 20.00 | 66.96 |
| WESTERN / OLYMPIC | Los Angeles | 10 | 2 | 20.00 | 4.35 | 3.03 | 12.95 | 20.00 | 20.00 | 66.94 |
| SAN PEDRO / 12TH | Los Angeles | 14 | 1 | 18.34 | 0.61 | 3.21 | 18.16 | 20.00 | 20.00 | 66.93 |
| PICO / UNION | Los Angeles | 1 | 1 | 20.00 | 3.23 | 2.20 | 14.86 | 20.00 | 20.00 | 66.91 |
| VERMONT / MARTIN LUTHER KING JR | Los Angeles | 9 | 2 | 20.00 | 5.45 | 1.41 | 13.40 | 20.00 | 20.00 | 66.88 |
| VENICE / WESTERN | Los Angeles | 10 | 2 | 20.00 | 4.82 | 1.75 | 13.66 | 20.00 | 20.00 | 66.86 |
| WESTERN / EXPOSITION | Los Angeles | 8 | 2 | 17.14 | 8.72 | 1.84 | 12.49 | 20.00 | 20.00 | 66.82 |
| WILLOWBROOK - ROSA PARKS STATION - WEST | Unincorporated | NA | 2 | 20.00 | 6.94 | 2.72 | 10.48 | 20.00 | 20.00 | 66.78 |
| 8TH / ALVARADO | Los Angeles | 1 | 1 | 14.78 | 2.66 | 4.62 | 17.85 | 20.00 | 20.00 | 66.60 |
| CRENSHAW / SLAUSON | Los Angeles | 8 | 2 | 20.00 | 5.17 | 1.98 | 12.71 | 20.00 | 20.00 | 66.55 |
| GRAND / PICO | Los Angeles | 14 | 1 | 16.45 | 0.24 | 8.01 | 15.13 | 20.00 | 20.00 | 66.52 |
| PACIFIC / FLORENCE | Unincorporated | NA | 4 | 20.00 | 7.15 | 1.10 | 11.43 | 20.00 | 20.00 | 66.40 |
| CENTRAL / 12TH | Los Angeles | 14 | 1 | 20.00 | 0.53 | 0.97 | 18.16 | 20.00 | 20.00 | 66.38 |
| VERMONT / ADAMS | Los Angeles | 8 | 2 | 20.00 | 5.62 | 2.18 | 11.81 | 20.00 | 20.00 | 66.34 |
| FLORENCE \ PACIFIC | Unincorporated | NA | 4 | 20.00 | 6.77 | 1.30 | 11.46 | 20.00 | 20.00 | 66.28 |
| SANTA ANA / CALIFORNIA | Huntington Park | NA | 4 | 20.00 | 0.13 | 9.43 | 9.98 | 20.00 | 20.00 | 66.28 |
| VERMONT / MANCHESTER | Los Angeles | 8 | 2 | 20.00 | 3.68 | 2.27 | 13.55 | 20.00 | 20.00 | 66.24 |
| FLORENCE / BROADWAY | Los Angeles | 9 | 2 | 20.00 | 2.76 | 2.20 | 14.53 | 20.00 | 20.00 | 66.24 |
| 6TH / BROADWAY | Los Angeles | 14 | 1 | 16.63 | 4.57 | 18.25 | 0.00 | 20.00 | 20.00 | 66.21 |
| SAN PEDRO / PICO | Los Angeles | 14 | 1 | 18.36 | 0.35 | 2.51 | 18.16 | 20.00 | 20.00 | 66.16 |
| SANTA MONICA / VINE | Los Angeles | 13 | 3 | 20.00 | 4.70 | 2.42 | 12.25 | 20.00 | 20.00 | 66.14 |
| 7TH / CENTRAL | Los Angeles | 14 | 1 | 16.66 | 1.31 | 3.23 | 18.16 | 20.00 | 20.00 | 66.13 |
| OLYMPIC / UNION | Los Angeles | 1 | 1 | 20.00 | 1.06 | 3.73 | 14.46 | 20.00 | 20.00 | 66.04 |
| GRAND / 23RD | Los Angeles | 9 | 1 | 20.00 | 1.76 | 2.60 | 14.88 | 20.00 | 20.00 | 66.04 |
| PICO / FIGUEROA | Los Angeles | 14 | 1 | 15.31 | 2.96 | 5.79 | 15.13 | 20.00 | 20.00 | 66.00 |
| TWEEDY / ALEXANDER | South Gate | NA | 4 | 20.00 | 0.29 | 9.56 | 9.29 | 20.00 | 20.00 | 65.95 |
| BROADWAY / VERNON | Los Angeles | 9 | 2 | 20.00 | 2.73 | 1.89 | 14.49 | 20.00 | 20.00 | 65.92 |
| SAN PEDRO / 9TH | Los Angeles | 14 | 1 | 17.01 | 1.97 | 1.93 | 18.16 | 20.00 | 20.00 | 65.90 |
| WESTERN / FLORENCE | Los Angeles | 8 | 2 | 20.00 | 3.60 | 2.07 | 13.41 | 20.00 | 20.00 | 65.90 |

*The total score is the sum of the six individual criteria scores, multiplied by a factor of 5/6, which normalizes the six criteria to a scale with a maximum score of 100.

| STOP LOCATION | City | Council District | Supervisorial District | SCORE | | | | | | |
|-----------------------------|-----------------|------------------|------------------------|-------|-----------|---------------|-------|-------|-------|--------------|
| | | | | Light | Ridership | Public Safety | CHAT | DAC | EFC | Total Score* |
| VERMONT / PICO | Los Angeles | 1 | 1 | 20.00 | 2.66 | 2.40 | 13.96 | 20.00 | 20.00 | 65.85 |
| HILL / ORD | Los Angeles | 1 | 1 | 20.00 | 2.04 | 3.39 | 13.55 | 20.00 | 20.00 | 65.81 |
| BROADWAY / VENICE | Los Angeles | 14 | 1 | 13.88 | 6.71 | 3.25 | 15.13 | 20.00 | 20.00 | 65.81 |
| FIGUEROA / 23RD | Los Angeles | 9 | 1 | 20.00 | 1.91 | 2.18 | 14.88 | 20.00 | 20.00 | 65.81 |
| ARTESIA / OBISPO | Long Beach | NA | 4 | 20.00 | 0.24 | 7.83 | 10.87 | 20.00 | 20.00 | 65.79 |
| GAGE / MARCONI | Huntington Park | NA | 4 | 16.53 | 0.30 | 9.43 | 12.67 | 20.00 | 20.00 | 65.77 |
| HARBOR TRANSITWAY \ SLAUSON | Los Angeles | 9 | 2 | 20.00 | 3.88 | 2.00 | 13.05 | 20.00 | 20.00 | 65.77 |
| ARTESIA / PARAMOUNT | Long Beach | NA | 4 | 20.00 | 0.30 | 7.83 | 10.72 | 20.00 | 20.00 | 65.71 |
| GAGE / VERMONT | Los Angeles | 8 | 2 | 20.00 | 0.96 | 2.81 | 15.02 | 20.00 | 20.00 | 65.66 |
| VERNON / AVALON | Los Angeles | 9 | 2 | 20.00 | 3.23 | 1.98 | 13.54 | 20.00 | 20.00 | 65.62 |
| ARBOR VITAE / HINDRY | Inglewood | NA | 2 | 20.00 | 0.42 | 7.30 | 10.96 | 20.00 | 20.00 | 65.56 |
| FIGUEROA / 41ST | Los Angeles | 9 | 2 | 20.00 | 0.58 | 2.58 | 15.48 | 20.00 | 20.00 | 65.53 |
| 8TH / BURLINGTON | Los Angeles | 1 | 1 | 17.85 | 1.69 | 4.29 | 14.78 | 20.00 | 20.00 | 65.50 |
| CRENSHAW / HYDE PARK | Los Angeles | 8 | 2 | 20.00 | 1.28 | 3.08 | 14.16 | 20.00 | 20.00 | 65.43 |
| GRAND / 23RD | Los Angeles | 9 | 1 | 20.00 | 1.18 | 2.45 | 14.88 | 20.00 | 20.00 | 65.42 |
| COMPTON / FLORENCE | Unincorporated | NA | 2 | 20.00 | 1.93 | 2.29 | 14.21 | 20.00 | 20.00 | 65.36 |
| BROADWAY / SLAUSON | Los Angeles | 9 | 2 | 20.00 | 1.88 | 2.02 | 14.51 | 20.00 | 20.00 | 65.34 |
| FIGUEROA / VENICE | Los Angeles | 9 | 1 | 20.00 | 0.63 | 2.63 | 15.13 | 20.00 | 20.00 | 65.32 |
| ATLANTIC / WHITTIER | Unincorporated | NA | 1 | 20.00 | 3.34 | 2.63 | 12.42 | 20.00 | 20.00 | 65.31 |
| VERMONT / 66TH | Los Angeles | 8 | 2 | 20.00 | 0.61 | 2.74 | 15.02 | 20.00 | 20.00 | 65.31 |
| GAGE / VERMONT | Los Angeles | 9 | 2 | 20.00 | 1.11 | 2.74 | 14.51 | 20.00 | 20.00 | 65.30 |
| CENTRAL / 114TH | Los Angeles | 15 | 2 | 20.00 | 0.49 | 2.31 | 15.42 | 20.00 | 20.00 | 65.19 |
| CRENSHAW / 67TH | Los Angeles | 8 | 2 | 20.00 | 0.79 | 2.11 | 15.31 | 20.00 | 20.00 | 65.17 |
| 5TH / MAIN | Los Angeles | 14 | 1 | 20.00 | 2.56 | 15.65 | 0.00 | 20.00 | 20.00 | 65.17 |
| ATLANTIC / WHITTIER | Unincorporated | NA | 1 | 20.00 | 3.29 | 3.05 | 11.80 | 20.00 | 20.00 | 65.11 |
| FLORENCE / MIRAMONTE | Unincorporated | NA | 2 | 20.00 | 1.89 | 2.63 | 13.61 | 20.00 | 20.00 | 65.11 |
| WASHINGTON / GRAND | Los Angeles | 9 | 1 | 20.00 | 0.96 | 2.27 | 14.88 | 20.00 | 20.00 | 65.09 |
| VERNON / BROADWAY | Los Angeles | 9 | 2 | 20.00 | 1.62 | 2.00 | 14.49 | 20.00 | 20.00 | 65.08 |
| VERMONT / VENICE | Los Angeles | 1 | 2 | 20.00 | 4.73 | 1.64 | 11.71 | 20.00 | 20.00 | 65.06 |
| SANTA MONICA / NORMANDIE | Los Angeles | 13 | 1 | 20.00 | 4.21 | 2.07 | 11.79 | 20.00 | 20.00 | 65.05 |
| ADAMS / GRAND | Los Angeles | 9 | 2 | 20.00 | 1.09 | 2.07 | 14.88 | 20.00 | 20.00 | 65.03 |
| 23RD / GRAND | Los Angeles | 9 | 1 | 20.00 | 0.73 | 2.40 | 14.88 | 20.00 | 20.00 | 65.02 |
| SUNSET / VINE | Los Angeles | 13 | 3 | 20.00 | 2.09 | 4.00 | 11.93 | 20.00 | 20.00 | 65.01 |
| SLAUSON / WESTERN | Los Angeles | 8 | 2 | 17.72 | 3.39 | 3.86 | 13.04 | 20.00 | 20.00 | 65.01 |
| 3RD / UNION | Los Angeles | 1 | 1 | 20.00 | 1.76 | 2.47 | 13.74 | 20.00 | 20.00 | 64.97 |
| SLAUSON / COMPTON | Unincorporated | NA | 2 | 20.00 | 2.70 | 1.23 | 14.01 | 20.00 | 20.00 | 64.96 |
| AVALON / ANAHEIM | Los Angeles | 15 | 4 | 20.00 | 0.98 | 2.81 | 14.14 | 20.00 | 20.00 | 64.94 |
| FLORENCE / ALAMEDA | Huntington Park | NA | 4 | 20.00 | 2.18 | 2.49 | 13.22 | 20.00 | 20.00 | 64.91 |
| VERMONT / CENTURY | Los Angeles | 8 | 2 | 20.00 | 4.22 | 1.64 | 12.03 | 20.00 | 20.00 | 64.90 |
| VERMONT / WASHINGTON | Los Angeles | 1 | 1 | 20.00 | 4.42 | 1.19 | 12.24 | 20.00 | 20.00 | 64.87 |

*The total score is the sum of the six individual criteria scores, multiplied by a factor of 5/6, which normalizes the six criteria to a scale with a maximum score of 100.

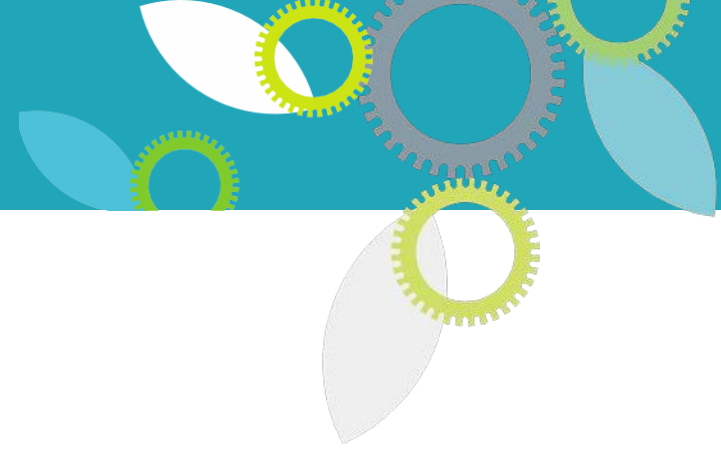
| STOP LOCATION | City | Council District | Supervisorial District | SCORE | | | | | | |
|-----------------------------------|-----------------|------------------|------------------------|-------|-----------|---------------|-------|-------|-------|--------------|
| | | | | Light | Ridership | Public Safety | CHAT | DAC | EFC | Total Score* |
| WHITTIER / ARIZONA | Unincorporated | NA | 1 | 20.00 | 2.54 | 2.85 | 12.44 | 20.00 | 20.00 | 64.86 |
| VERMONT / 7TH | Los Angeles | 10 | 2 | 15.86 | 0.87 | 5.14 | 15.94 | 20.00 | 20.00 | 64.84 |
| VERNON / HOOVER | Los Angeles | 9 | 2 | 20.00 | 0.63 | 1.66 | 15.51 | 20.00 | 20.00 | 64.83 |
| MELROSE / WESTERN | Los Angeles | 13 | 3 | 20.00 | 1.73 | 2.33 | 13.72 | 20.00 | 20.00 | 64.81 |
| COMPTON / GAGE | Unincorporated | NA | 2 | 20.00 | 1.37 | 2.18 | 14.21 | 20.00 | 20.00 | 64.80 |
| WESTERN / ROMAINE | Los Angeles | 13 | 3 | 20.00 | 1.05 | 2.85 | 13.80 | 20.00 | 20.00 | 64.76 |
| WESTERN / VERNON | Los Angeles | 8 | 2 | 20.00 | 3.82 | 1.89 | 11.99 | 20.00 | 20.00 | 64.75 |
| HILL / VENICE | Los Angeles | 14 | 1 | 17.98 | 0.94 | 3.64 | 15.13 | 20.00 | 20.00 | 64.74 |
| ADAMS / SAN PEDRO | Los Angeles | 9 | 2 | 20.00 | 1.41 | 1.93 | 14.34 | 20.00 | 20.00 | 64.73 |
| MAPLE LOT | Los Angeles | 14 | 1 | 20.00 | 5.02 | 12.64 | 0.00 | 20.00 | 20.00 | 64.71 |
| WILLOWBROOK / COMPTON | Compton | NA | 2 | 20.00 | 0.05 | 4.20 | 13.36 | 20.00 | 20.00 | 64.67 |
| VERNON / AVALON | Los Angeles | 9 | 2 | 20.00 | 1.49 | 1.89 | 14.21 | 20.00 | 20.00 | 64.66 |
| FLORENCE / STAFFORD | Huntington Park | NA | 4 | 20.00 | 0.92 | 0.88 | 15.76 | 20.00 | 20.00 | 64.62 |
| FLORENCE / SANTA FE | Huntington Park | NA | 4 | 20.00 | 1.85 | 2.47 | 13.22 | 20.00 | 20.00 | 64.62 |
| HARBOR TRANSITWAY \ 37TH ST \ USC | Los Angeles | 9 | 2 | 20.00 | 2.40 | 2.07 | 13.06 | 20.00 | 20.00 | 64.61 |
| FLORENCE / JABONERIA | Bell Gardens | NA | 4 | 20.00 | 0.85 | 4.89 | 11.79 | 20.00 | 20.00 | 64.61 |
| ADAMS / MAPLE | Los Angeles | 9 | 2 | 20.00 | 0.93 | 1.71 | 14.88 | 20.00 | 20.00 | 64.60 |
| GAGE / ATLANTIC | Bell | NA | 4 | 20.00 | 1.57 | 4.53 | 11.35 | 20.00 | 20.00 | 64.54 |
| HOOVER / PICO | Los Angeles | 1 | 1 | 19.52 | 1.08 | 2.74 | 14.10 | 20.00 | 20.00 | 64.53 |
| FIGUEROA / 47TH | Los Angeles | 9 | 2 | 20.00 | 0.51 | 1.98 | 14.95 | 20.00 | 20.00 | 64.53 |
| FIGUEROA / 79TH | Los Angeles | 8 | 2 | 18.30 | 1.08 | 4.06 | 13.99 | 20.00 | 20.00 | 64.53 |
| CENTRAL / IMPERIAL | Los Angeles | 15 | 2 | 20.00 | 0.26 | 1.71 | 15.42 | 20.00 | 20.00 | 64.49 |
| MARTIN LUTHER KING JR / WESTERN | Los Angeles | 8 | 2 | 20.00 | 2.60 | 2.78 | 11.99 | 20.00 | 20.00 | 64.47 |
| PICO / GRAND | Los Angeles | 14 | 1 | 12.70 | 0.88 | 8.64 | 15.13 | 20.00 | 20.00 | 64.46 |
| FIGUEROA / WASHINGTON | Los Angeles | 9 | 1 | 17.06 | 2.61 | 2.78 | 14.88 | 20.00 | 20.00 | 64.44 |
| ADAMS / MAPLE | Los Angeles | 9 | 2 | 20.00 | 0.87 | 2.11 | 14.34 | 20.00 | 20.00 | 64.44 |
| ORD / BROADWAY | Los Angeles | 1 | 1 | 20.00 | 0.12 | 3.66 | 13.55 | 20.00 | 20.00 | 64.43 |
| GAGE / BROADWAY | Los Angeles | 9 | 2 | 20.00 | 0.92 | 1.91 | 14.49 | 20.00 | 20.00 | 64.43 |
| VERMONT / ATHENS STATION | Los Angeles | 15 | 2 | 20.00 | 3.62 | 1.57 | 12.11 | 20.00 | 20.00 | 64.42 |
| ATLANTIC / SLAUSON | Maywood | NA | 4 | 20.00 | 3.33 | 1.98 | 11.98 | 20.00 | 20.00 | 64.40 |
| FIGUEROA / 76TH | Los Angeles | 8 | 2 | 20.00 | 0.51 | 4.20 | 12.57 | 20.00 | 20.00 | 64.40 |
| CENTRAL / 112TH | Los Angeles | 15 | 2 | 20.00 | 0.37 | 1.48 | 15.42 | 20.00 | 20.00 | 64.40 |
| FIGUEROA / 76TH | Los Angeles | 8 | 2 | 20.00 | 0.51 | 3.34 | 13.41 | 20.00 | 20.00 | 64.38 |
| FIGUEROA / 79TH | Los Angeles | 8 | 2 | 18.95 | 0.81 | 4.04 | 13.41 | 20.00 | 20.00 | 64.34 |
| ROSECRANS / KINGSLEY | Gardena | NA | 2 | 20.00 | 0.08 | 6.82 | 10.30 | 20.00 | 20.00 | 64.34 |

California Heat Assessment Tool (CHAT): CHAT was funded by the California Natural Resources Agency and was developed in 2019 to help state and local public health officials understand how heat vulnerability will change with increasing temperatures due to climate change. Metro’s bus stops were rated based on heat index, using data from the CHAT. CHAT’s Heat Health Action Index is a statistically weighted result of the social vulnerability, health, and environmental factors (including tree canopy) for each Census Tract and is intended to represent a community’s overall heat vulnerability. The Heat Health Action Index ranges from 0 to 100.

**The total score is the sum of the six individual criteria scores, multiplied by a factor of 5/6, which normalizes the six criteria to a scale with a maximum score of 100.*



Metro



Bus Stop Improvements Plan Report Back

Cris Liban, Sustainability Officer

June 15, 2023



Metro's Commitment: Improving the experience of our bus riders by collaborating and coordinating with local jurisdictions to ensure their residents who ride Metro and local buses have access to bus stops that are comfortable, well-designed and well-maintained.

Addressing Bus Stop Needs

Metro does not own the bus stop locations

- Shelter and Seating: Providing comfort for waiting passengers
- Safety and Security: Ensuring a secure environment
- Customer Experience: Enhancing overall satisfaction

Key to Success

Collaborating with local jurisdictions

- Jurisdictional Priorities: Recognizing differing needs and preferences
- Scarce Resources: Working together to optimize resource allocation
- Ensuring Sustainability: Maintenance is a crucial factor for long-term benefits



Metro

Bus Stop Related Activities

- Metro Initiatives and Technical Documents
- Metro Board Motions and Staff Response/Outcomes
 - Including Motion 20, March 2023 on Bus Stop Improvements
- Outreach and collaboration
 - Collaborating with stakeholders for input and feedback, working together to achieve common goals
- Bus Stop Portal
 - Centralized Information Hub, access to bus stop-related resources, interactive Maps
- Bus Stop Summit
 - Bringing together stakeholders for discussions and solutions through workshops and presentations, sharing best practices and innovative ideas



Near Term Timeline

Metro

