



Board Report

File #: 2023-0220, File Type: Informational Report

Agenda Number: 39.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE APRIL 20, 2023

SUBJECT: NEXTGEN SPEED & RELIABILITY PROGRAM UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the NextGen Speed & Reliability Program Update.

ISSUE

The NextGen Bus Plan is a reimagining of the Metro bus system. It includes a redesign of the bus route network and a capital program to improve the speed and reliability of the network. As of March 31, 2023, 31 miles of bus priority lanes are operational, increasing speed and reliability by up to 15%. Another 64 miles of bus priority lanes are in the planning stage. A Line (Blue) travel corridor time has been reduced by 15%. This report provides an update on the NextGen Speed and Reliability Program initiatives, including bus priority lanes, camera enforcement, and transit signal priority improvements.

BACKGROUND

The NextGen Bus Plan was initiated in 2018 and approved by the Metro Service Councils in September 2020 followed by Metro Board adoption in October 2020. A key part of the plan was to establish a fast, frequent, and reliable network of bus services capable of competing effectively in the overall market for travel to grow Metro bus ridership. This network was largely implemented between December 2020 and December 2021.

As part of NextGen, a Bus Speed and Reliability Program, focused on quick-build, tactical transit engineering, was established to accelerate design and implementation of initiatives to improve the speed and reliability of the bus system. These approaches can also be applied to street-running rail operations, resulting in operational improvements for Metro's light rail system as well.

In July 2018, the Board adopted Motion 38.1 (Attachment A) by Garcetti, Kuehl, Bonin and Garcia as amended by Barger, endorsing travel speed, service frequency, and system reliability as the highest priority service design objectives for the NextGen Bus Study. These objectives were incorporated into the NextGen Regional Service Concept approved by the Board in July 2019. This provided the

framework for restructuring Metro's bus routes and schedules under the NextGen Bus Plan, the first comprehensive review of the Metro bus network in a generation, and focused on establishing a fast, frequent, and reliable network that is easy to understand and competitive in the overall market for travel in LA County. This new network would be capable of supporting growth in overall ridership for the bus system by addressing opportunities to be more competitive at off peak times and for shorter distance trips.

In July 2019, the Board approved Motion 22.1 (Attachment B) by Bonin, Garcetti, Krekorian, Solis, and Garcia entitled NextGen Bus Speed Engineering Working Group as part of the NextGen Service Concept, which provided direction to staff to establish a partnership between Metro and LADOT to identify, design, fund and implement transit supportive infrastructure to speed up transit service as part of the NextGen Bus Plan. Specifically, this motion requested the following:

- A. Develop a list of priority bus supportive infrastructure projects needed to support the NextGen bus service plan, with an emphasis on near-term improvements that can be implemented concurrently with each phase of NextGen;
- B. Form a NextGen Bus Speed Engineering Working Group co-chaired by the Metro CEO and the General Manager (GM) of the Los Angeles Department of Transportation (LADOT), or their designees, and establish a regular meeting schedule, at least monthly;
- C. Assess the need for coordination with additional local jurisdictions and municipal operators where bus delay hotspots exist; and
- D. Report back to the Operations, Safety and Customer Experience Committee on the above in April 2020, and quarterly thereafter.

In response to Motion 22.1, Metro appointed a Technical Working Group focused on identifying, planning, designing and implementing bus speed and reliability improvements. Metro Service Planning, in close partnership with LADOT's equivalent technical team, consisting of Traffic Operations, Active Transportation, Vision Zero, and Transportation Planning Groups, have been meeting regularly (every 2-4 weeks) to ensure ongoing coordination and advancement of the program. Additional Metro departments (e.g. Customer Experience, Planning, OMB, OSI, Program Management, Security) and other municipal traffic departments and transit operators are engaged as needed when specific projects have been defined and advanced towards design and implementation.

An External Affairs Working Group was also established as a subcommittee of the Technical Working Group. It is comprised of staff from Metro Community Relations, LADOT External Affairs, StreetsLA, the Los Angeles Mayor's Office, Metro Board Staff and Metro Service Planning. Their work focuses on coordinating communication and engagement efforts as well as preparing communities for coming improvements and identifying and addressing potential impacts for these projects.

DISCUSSION

Since the last NextGen Speed & Reliability Program update provided to the Board in January 2023, the Working Group has met regularly in support of the following initiatives:

Alvarado St Bus Priority Lanes (Metro Line 2)

Following the full completion of the Alvarado St Bus Priority Lanes project, Metro re-engaged with its

customers through a bilingual, on-board survey of over 200 bus riders. Riders onboard buses and waiting at bus stops along Alvarado St were asked a series of questions regarding their experiences riding buses along the corridor following the Phase 2 implementation of bus priority lanes. Staff conducted surveys one-on-one and handed out survey cards with a link and a QR code for riders to scan if they were not interested in speaking with survey staff, or if they were exiting the bus at the time of contact. Below are some of the key findings from this survey:

- 1 in 3 riders completed the survey in Spanish
- Nearly 9 in 10 riders were Black, Indigenous, and/or other People of Color (BIPOC)
- 8 in 10 trips were school or work related
- 97% of respondents are frequent riders (daily or weekly)
- 8 in 10 riders agree that these bus lanes have made their trips noticeably or somewhat faster than before
- 8 in 10 riders indicated their service is on-time more often than before
- 93% of respondents have observed private vehicles blocking or driving in the bus lanes at least half of the time

Based on this feedback, Metro reached out to LADOT to increase targeted enforcement to improve bus lane compliance along the corridor. Operations staff will also conduct periodic check-ins with operators assigned to the corridor to monitor the impact of these enforcement efforts.

La Brea Avenue Bus Priority Lanes (Metro Line 212)

Metro continues to work with the City of Los Angeles and City of West Hollywood on securing construction permits for peak period bus priority lanes on La Brea Ave between Sunset Bl and Olympic Bl. Metro will provide an update to the community on the construction schedule and impacts. Metro and LADOT continue to work with stakeholders on completing the second phase on La Brea Av between Olympic Bl and Coliseum St.

Venice Boulevard Bus Priority Lanes (Metro Line 33)

Metro is a partner with LADOT on the Venice Bl Safety and Mobility Project in the Mar Vista and Palms neighborhoods. Conversion of the rightmost traffic lane to full-time, bus priority lanes in both directions between Inglewood Bl and Culver Bl near Culver City E Line (Expo) Station began in December 2022. Parking-protected bike lanes will also be installed along this segment. Due to weather conditions, construction has been delayed and is anticipated to be completed in May 2023.

Sepulveda Boulevard Bus Priority Lanes (Metro Line 234)

The Technical Working Group identified a 5.5-mile segment of Sepulveda Bl, from Ventura Bl to Rayen St, as the next corridor to study for bus priority lanes. The proposed bus lanes would be in service full-time along Sepulveda Bl and 7-9 am weekdays only along the short 0.5-mile segment of westbound Ventura Bl between Vesper Av and Sepulveda Bl. Metro Community Relations staff conducted briefings and presentations to interested stakeholders, community groups, and neighborhood councils, as well as conducted outreach to businesses along Sepulveda Bl and Ventura Bl in Fall 2022. Staff also conducted a survey of Line 234 bus riders from October 31 to November 4 to gather feedback on their experiences with bus service along Sepulveda Bl. Below are some of the key findings from this survey:

- 96% of respondents are frequent riders (daily or weekly)
- 63% of respondents often or always experience delays along Sepulveda BI due to traffic congestion
- Nearly 9 in 10 riders would use the bus more if there were more reliable trip times

A virtual community meeting was held on November 10, 2022 to present project information to the community, gather feedback, and answer questions. Community engagement was completed in January 2023. Project design is being finalized and the project team is scheduling construction for June 2023.

Florence Avenue Bus Priority Lanes (Metro Line 111)

In partnership with LADOT and Council Districts 8 and 9, Metro is implementing peak-hour bus priority lanes for a nearly five-mile segment along Florence Av from the Florence A Line (Blue) Station to West BI. Community engagement was completed through Summer 2022 with design in-process. Overall pavement quality along Florence Av was identified as a community concern in certain segments that have not recently resurfaced. As a result, the Working Group has coordinated with StreetsLA to repave key segments of the corridor prior to bus lane implementation. Paving work is underway and bus lane implementation is expected later this year.

Camera Bus Lane Enforcement (CBLE)

Metro has issued a Request for Proposals (RFP) to enforce parking violations in bus-only lanes primarily through the use of automated, on-vehicle, forward-facing cameras, pursuant to the legislative authorization passed under California Assembly Bill AB917 and signed by Governor Newsom. This legislation authorizes transit agencies to collect evidence of bus lane and bus stop zone violations to share with jurisdictional parking enforcement agencies through December 31, 2026. Customer surveys and ongoing discussions with bus operators have yielded significant feedback about private vehicles blocking bus lanes and bus stops, which delays bus services and can make it difficult for customers to safely board and alight the bus. Metro intends to select several corridors to pilot this technology to improve bus lane and bus stop zone compliance. This solicitation was released March 8, 2023 with proposals due April 10, 2023 and is currently in a blackout period and staff will return to the Board with a recommendation for contract award in Summer 2023.

All Door Boarding (ADB)

In February 2022, Metro board approved the purchase and installation of bus mobile validators (BMV) and ethernet switches to support the implementation of ADB on Metro's NextGen Tier 1 and Tier 2 networks. Operations has completed the installation of ethernet communication switches on nearly 50% of the Metro bus fleet, with new BMV hardware scheduled to be delivered in Summer 2023 for testing. This ADB project will be first piloted on two different bus lines in Fall 2023, with further details to follow. Systemwide BMV installation is scheduled between Winter 2023 and Summer 2024.

Metro A Line (Blue) Speed & Reliability Improvements on Washington BI

Metro A Line (Blue) operations along Washington Bl were disrupted at the end of 2022 by copper theft from LADOT's traffic signal system. Train speed and reliability were negatively impacted by slower operation resulting from the loss of signal priority and other supportive systems. Metro's Speed & Reliability Team worked closely with LADOT's traffic signal engineers and field crews to put quick fixes in the programming of signals in place that have largely restored faster and more reliable train operations. These fixes have reduced red light delays by 22% and reduced corridor travel time by 15%. Metro continues to work closely with LADOT to assess the full scope of damaged traffic signal infrastructure along Washington Bl, and will support LADOT in their efforts to rebuild damaged systems.

LADOT Cloud-Based Transit Signal Priority (TSP)

In February 2023, Metro and contractor Kimley-Horn kicked off the cloud-based transit signal priority (TSP) project for bus service in the City of Los Angeles. This new system will replace the aging loop and transponder-based TSP system at over 1,600 intersections with a modern, real-time, cloud-based system that will reduce red light delay for Tier 1 bus lines throughout the City of Los Angeles. This new TSP system will also allow for easier expansion to new traffic signal locations in the future. The new cloud-based TSP system is expected to be online at the end of 2024.

EQUITY PLATFORM

The NextGen Bus Plan was developed with an equity lens, placing service in Equity Focus Communities where transit was more likely to provide a key mobility option for residents. The above report shows progress in rolling out speed and reliability improvements for improved transit travel times on corridors benefitting EFC residents.

These gains for EFCs should continue to improve as bus speed and reliability improvements increase the competitiveness of the NextGen Bus Plan. As described above, staff include rider outreach feedback in developing these projects and also conduct post-implementation surveys with bus riders along project corridors to measure the benefits and impacts to marginalized groups as a result of these projects. One example includes the LADOT Cloud-Based Transit Signal Priority (TSP) project, which is a key technology component of the NextGen plan. The TSP project will deliver improved service along the Tier 1 network, which was developed through the NextGen Bus Plan's equity analysis. By reducing delays and improving transit travel times along the Tier 1 network, the project supports Metro's Equity Platform of removing barriers and supporting increased access to opportunity for all riders.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendations support strategic plans:

Goal #1: Provide high quality mobility options that enable people to spend less time traveling. Improving the speed and reliability of the bus network will reduce transit travel times, as well as improve competitiveness with other transportation options.

Goal #2: Deliver outstanding trip experiences for all users of the transportation system. These initiatives help to move more people within the same street capacity, where currently transit users

suffer service delays and reliability issues because of single occupant drivers.

Goal #3: Enhance communities and lives through mobility and access to opportunity. With faster transit service and improved reliability, residents have increased access to education and employment, with greater confidence that they will reach their destination on time.

Goal #4: Transform Los Angeles County through regional collaboration and national leadership. Because Metro does not have jurisdiction over local streets and arterials, collaboration with other partner agencies such as LADOT, Caltrans, City and County of Los Angeles are necessary to ensure these speed and reliability improvements are successfully implemented.

NEXT STEPS

The NextGen Bus Speed Engineering Working Group will continue to discuss and analyze future corridors along key arterials for equitable opportunities and are actively collaborating with partner agencies and stakeholders. Staff plans to provide further details about these corridors in the next quarterly update in mid 2023.

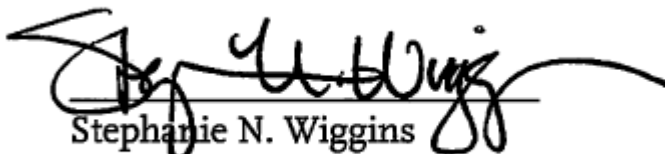
ATTACHMENTS

Attachment A - Motion 38.1

Attachment B - Motion 22.1

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Board Report

File #: 2018-0414, **File Type:** Motion / Motion Response

Agenda Number: 38.1

**REGULAR BOARD MEETING
JUNE 28, 2018**

Motion by:

**GARCETTI, KUEHL, BONIN AND GARCIA
AS AMENDED BY BARGER**

Related to Item 38: **NEXTGEN BUS STUDY SERVICE PARAMETERS**

MTA should strive to deliver the best customer experience of any public transit provider in America.

MTA's customers should be able to easily and conveniently access MTA services and data and feel assured that their transit trip will be fast, convenient, and reliable.

Additionally, MTA's customers should feel that MTA actively cares about their experience. MTA's customers should see a proven, constant, and continuous effort by MTA to improve the experience of using MTA's services.

Furthermore, MTA must demonstrate that its services are superior to alternatives.

The Ad Hoc Customer Experience Committee was formed to ensure that MTA was focused on these issues.

Since July, the ad hoc committee has met six times. The committee has examining a wide range of issues, including quality bus service, station cleanliness, TAP, pass programs, real-time data, service interruptions, marketing, Customer Care, system accessibility, and the causes of MTA's recent ridership trends.

In the coming fiscal year, the duties of the Ad Hoc Customer Experience Committee will transition to the Operations Committee.

However, as MTA continues important customer experience initiatives, especially the NextGen Bus Study, it is important that the Board remain engaged on customer experience issues.

Additionally, as MTA advances the NextGen Bus Study, it is appropriate for the Board to provide policy direction on the highest priorities for the future restructuring of the MTA bus network.

SUBJECT: MOTION BY GARCETTI, KUEHL, BONIN AND GARCIA

NEXTGEN BUS STUDY SERVICE PARAMETERS

WE THEREFORE MOVE THAT the Board:

- A. Rename the System Safety, Security and Operations Committee to the Operations, Safety, and Customer Experience Committee;
- B. Endorse Travel Speed, Service Frequency, and System Reliability as the highest priority service parameters to guide the work of the NextGen Bus Study;

WE FURTHER MOVE that the Board direct the CEO to:

- C. Develop customer experience key performance indicators (KPIs) within Operations, Communications, Information & Technology Services, TAP, System Security and Law Enforcement, and other functional areas of MTA to regularly report on the status of the system, transit service, and the transit service environment;
- D. Develop an Annual Customer Service and Experience Plan, including but not limited to improvements planned and desired for:
 - 1. KPIs developed under section C. above
 - 2. The status of Customer Service & Experience projects
 - 3. Key accomplishments, objectives, and challenges in Customer Service and Customer Experience for the following budget year
 - 4. Key accomplishments, objectives, and challenges in transit service marketing for the following budget year
 - 5. The CEO's Ridership Initiatives, including the Customer Experience Strategist (Board File 2018-0365);
- E. Report back to the Operations Committee on all the above in 120 days.

BARGER AMENDMENT: continue to seek input and feedback on priorities from NextGen working groups and relevant community stakeholders.



Board Report

File #: 2019-0572, **File Type:** Motion / Motion Response

Agenda Number: 22.1

REGULAR BOARD MEETING JULY 25, 2019

Motion by:

DIRECTORS BONIN, GARCETTI, KREKORIAN, SOLIS AND GARCIA

Related to Item 22: NextGen Bus Speed Engineering Working Group

In June 2018, the Metro Board endorsed speed, frequency, and reliability as the highest priorities for Metro's bus service in the NextGen Bus Study. In recent years, the primary contributor to slow speeds and poor schedule reliability has been growing traffic congestion on city streets. This congestion directly increases Metro's operating costs and reduces the quality of the service that Metro can afford to provide. Providing high-quality transit options with competitive travel times is the single most important step Metro can take to retain and grow ridership, increase the carrying capacity of local roadways, and shift regional travel patterns toward more efficient modes. These goals are essential components of both Metro's Vision 2028 Strategic Plan and the City of Los Angeles' Mobility Plan 2035 and Sustainable City pLAN.

The phenomenon of traffic congestion impeding mass transit operations is particularly acute in Downtown Los Angeles and nearby neighborhoods -- and the experience of the recent Flower Street pilot bus lane has demonstrated the effectiveness of strategic bus-supportive infrastructure in allowing transit riders to bypass congestion. Other types of bus-supportive infrastructure may include queue jumpers, signal priority, or boarding islands. Combined with operational improvements like All Door Boarding, these types of infrastructure improvements can cut stop times and improve bus speeds by 20% or more.

Metro buses operate on streets controlled by local jurisdictions. Therefore, close coordination between Metro and local agency partners is essential to successfully implement infrastructure changes. A working group is needed to ensure close coordination between Metro's Operations Department and city transportation agencies.

SUBJECT: NEXTGEN BUS SPEED ENGINEERING WORKING GROUP

APPROVE Motion by Directors Bonin, Garcetti, Krekorian, Solis and Garcia that the Board direct the CEO to:

- A. Develop a list of priority bus-supportive infrastructure projects needed to support the NextGen bus service plan, with an emphasis on near-term improvements that can be implemented concurrently with each phase of NextGen;
- B. Form a NextGen Bus Speed Engineering Working Group co-chaired by the Metro CEO and the General Manager of the Los Angeles Department of Transportation, or their designees, and establish a regular meeting schedule, at least monthly;
- C. Assess the need for coordination with additional local jurisdictions and municipal operators where bus delay hotspots exist; and
- D. Report back to the Operations, Safety, and Customer Experience Committee on the above in October 2019, and quarterly thereafter.



NEXTGEN Bus Plan

Speed & Reliability
Program Update

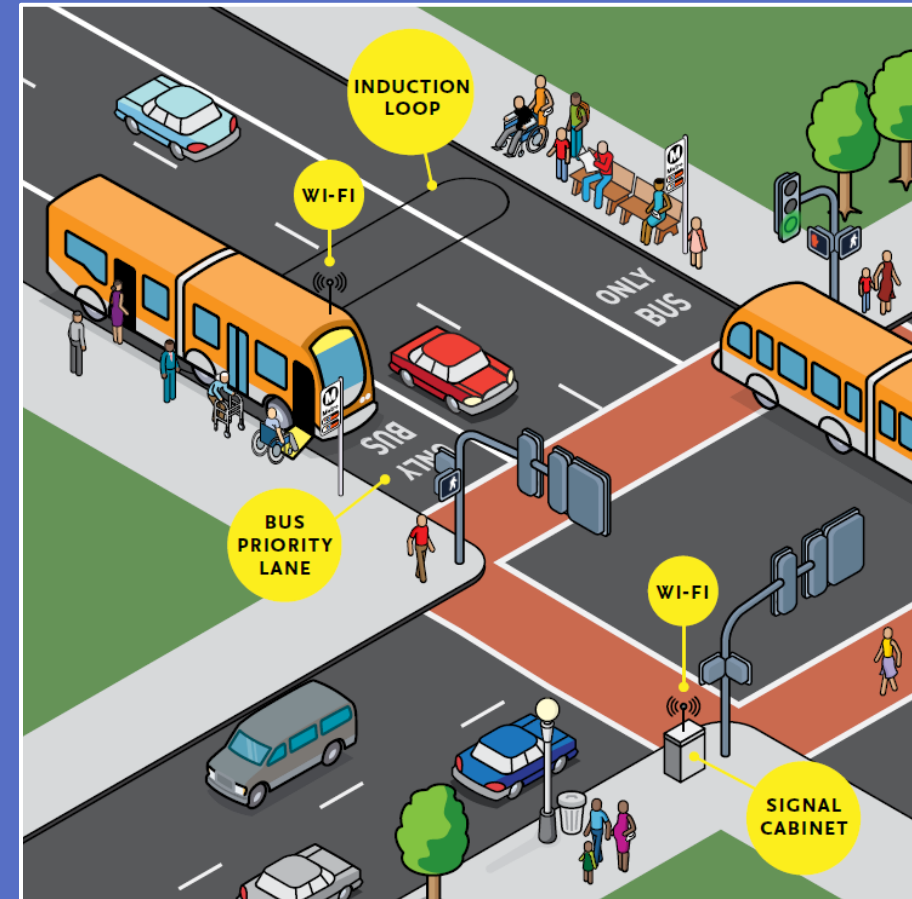


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Speed & Reliability (S&R) Background

- NextGen Bus Plan improves transit competitiveness through faster, more frequent and more reliable bus service
- Pursuant to Motions 38.1 (July 2018) and 22.1 (July 2019), a Bus Speed & Reliability tactical transit infrastructure program was established to accelerate collaborative solutions for bus delays
 - 100+ Miles of Bus Priority Lanes
 - 1,600+ Intersections with Transit Signal Priority
 - All Door Boarding to Reduce Dwell Times
 - Tactical Treatments & Studies (Bus & Rail)
 - Bus Stop & Layover Improvements
- Force multiplier that improves customer experience (CX) and operator conditions, with operational savings reinvested into better service



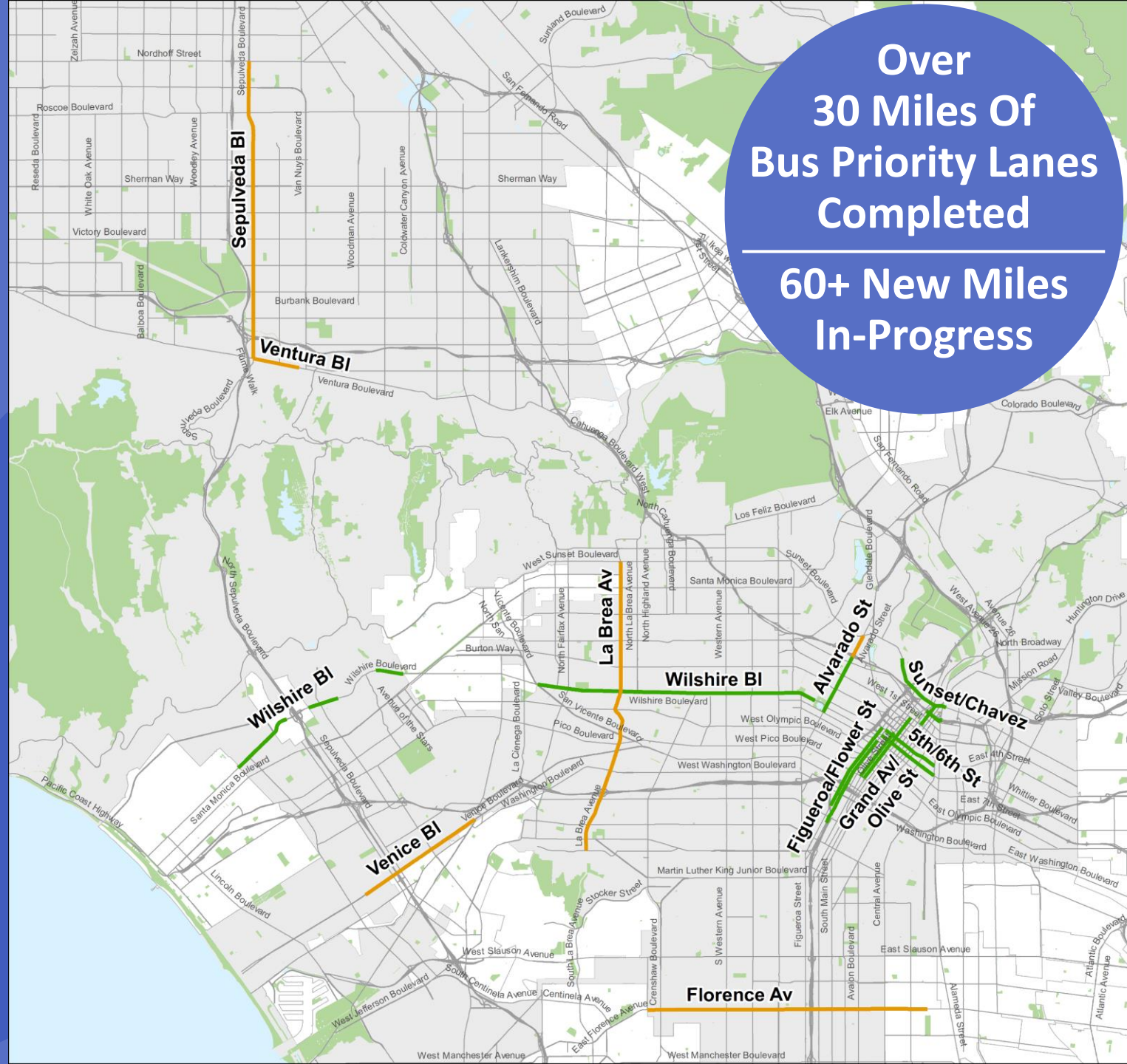
Bus Lane Map

Bus Priority Lane Corridors

- ✓ Flower St
- ✓ Aliso St
- ✓ 5th St
- ✓ 6th St
- ✓ Alvarado St
- ✓ Grand Av
- ✓ Olive St
-  La Brea Av
-  Florence Av
-  Venice Bl
-  Sepulveda Bl



Over
30 Miles Of
Bus Priority Lanes
Completed

60+ New Miles
In-Progress





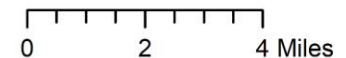
Bus Lane Projects
DRAFT, 11/14/2022

Bus Lanes

-  Completed Corridors
-  In-Progress Corridors

City Boundaries

-  Los Angeles
-  Other cities/LA County



Bus Priority Lanes Update

Alvarado St (Line 2)

Surveyed over 200 bus riders after project completion

- 8 in 10 riders agreed bus lanes have made their trip faster and more reliable
- 9 in 10 riders reported cars routinely blocking bus lanes
- Based on this feedback, Metro is partnering with LADOT to conduct targeted parking enforcement along this corridor

La Brea Av (Line 212)

- **Phase 1** (La Brea/Sunset to La Brea/Olympic) working with City of LA and WeHo to secure construction permits to begin implementation; will provide a community update pending approval from both cities

Venice Bl (Line 33): Construction is underway but has experienced significant weather delays, anticipated completion in Spring 2023

Sepulveda Bl (Line 234) in SFV

Conducted bus rider survey in Fall 2022

- 6 in 10 riders experience bus delays attributed to traffic congestion
- Nearly 9 in 10 riders would use the bus more if bus reliability improved

Partnering with LADOT and StreetsLA

- Street paving this spring // Bus Lanes this summer

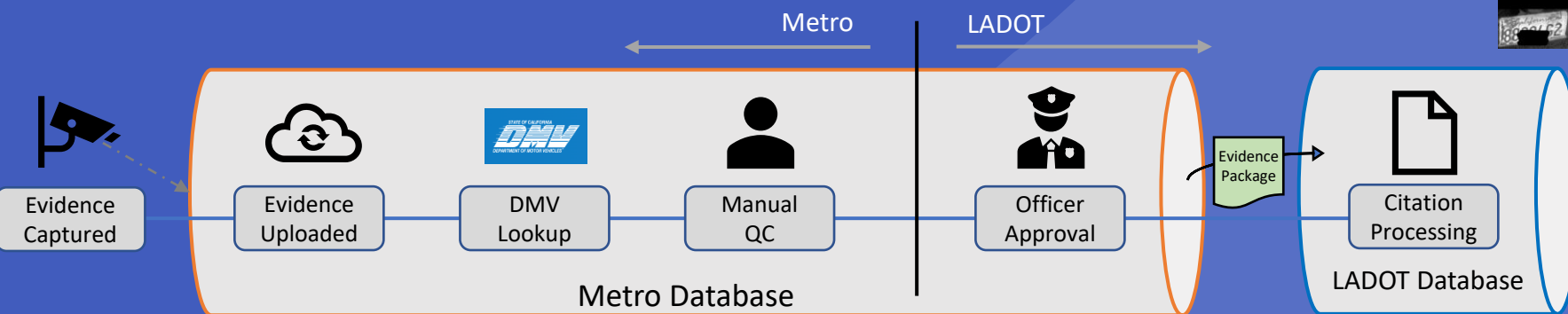
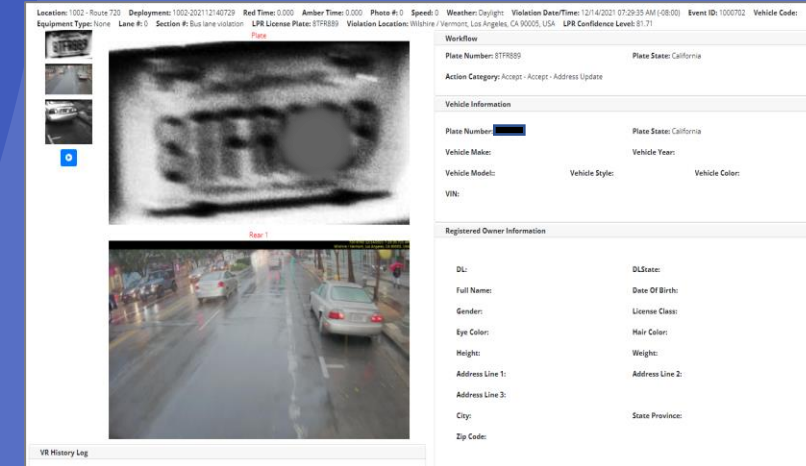
Florence Av (Line 111)

- Metro heard widespread concerns about pavement quality; partnering with StreetsLA to first coordinate street repaving in key segments, then complete bus lane design and implementation



Camera Bus Lane Enforcement (CBLE)

- With AB 917 adoption, plan to implement forward-facing cameras angled to obtain evidence of parking violations through 2026
- Equitable program to improve bus rider experience and reduce in-person confrontations between enforcement officers and violators
- Issued Request for Proposals (RFP); staff would return to Board with recommendation for contract award in Summer 2023
- Metro to submit evidence packages to local jurisdiction (LADOT), which would process citations



Transit Signal Priority & All Door Boarding

- Metro A Line (Blue): Copper theft of LADOT's traffic signal system had disrupted rail service; team worked closely with LADOT on quick fixes to reduce red light delay by over 20% and improve travel time by 15%
- LADOT Cloud-Based Transit Signal Priority (TSP): Project Kickoff
 - New system will upgrade over 1,600 intersections with a modern, real-time system that will reduce red light delay for NextGen Tier 1 bus lines throughout City of LA
- All Door Boarding (ADB): In-Progress
 - Communications support equipment 50% completed
 - ADB expansion will be piloted on two different bus lines in Fall 2023, with further details to follow

