

ITEM 19



NEXTGEN Bus Plan

Bus Speed Engineering Working Group Update



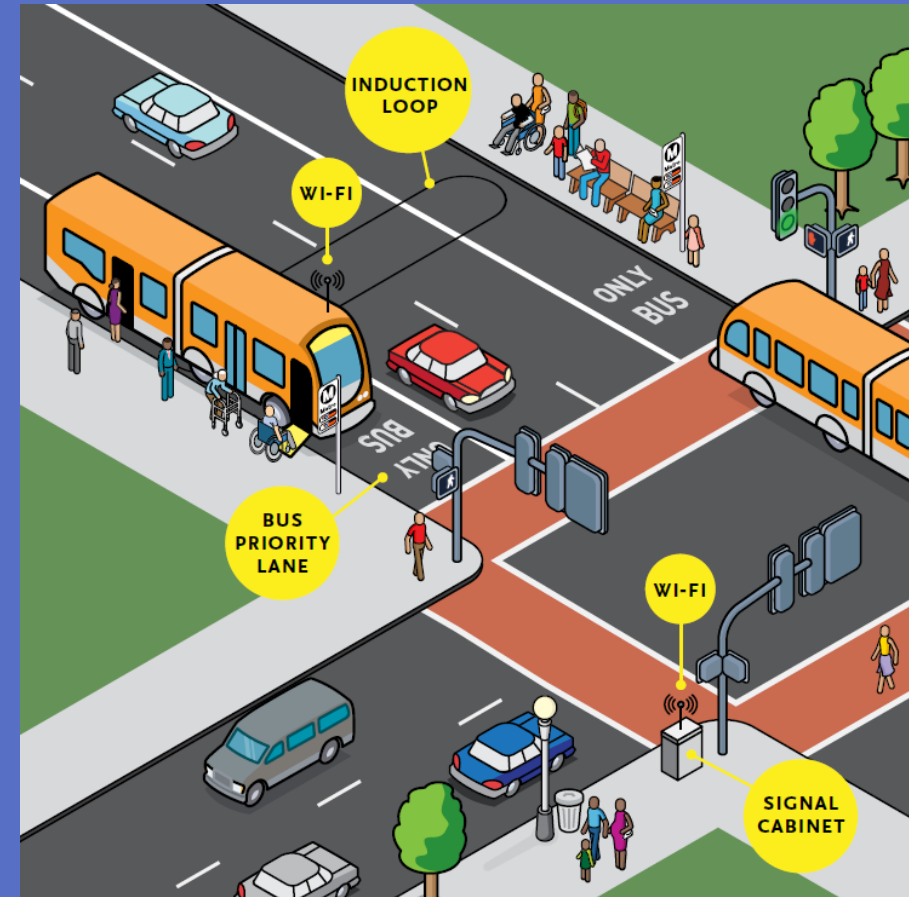
Metro®

Operations, Safety & Customer Experience Committee Meeting

May 19, 2022

Speed & Reliability (S&R) Program Overview

- New, in-house Transit Operations Engineering program to sustainably deliver NextGen Transit First Service Plan frequencies by improving bus speed and reliability
 - Bus Priority Lanes
 - Transit Signal Priority
 - All Door Boarding
 - Tactical Treatments & Studies (Bus & Rail)
 - Bus Stop & Layover Improvements
- Accelerates transit improvements with laser focus, resolves core issues and builds trust with partner agencies
 - Similar Transit Operations Engineering programs in SF, Portland, Seattle, Vancouver, Minneapolis
- Force multiplier that improves customer experience (CX) and operator conditions, with operational savings reinvested into better service
- \$25M awarded from California Transportation Commission

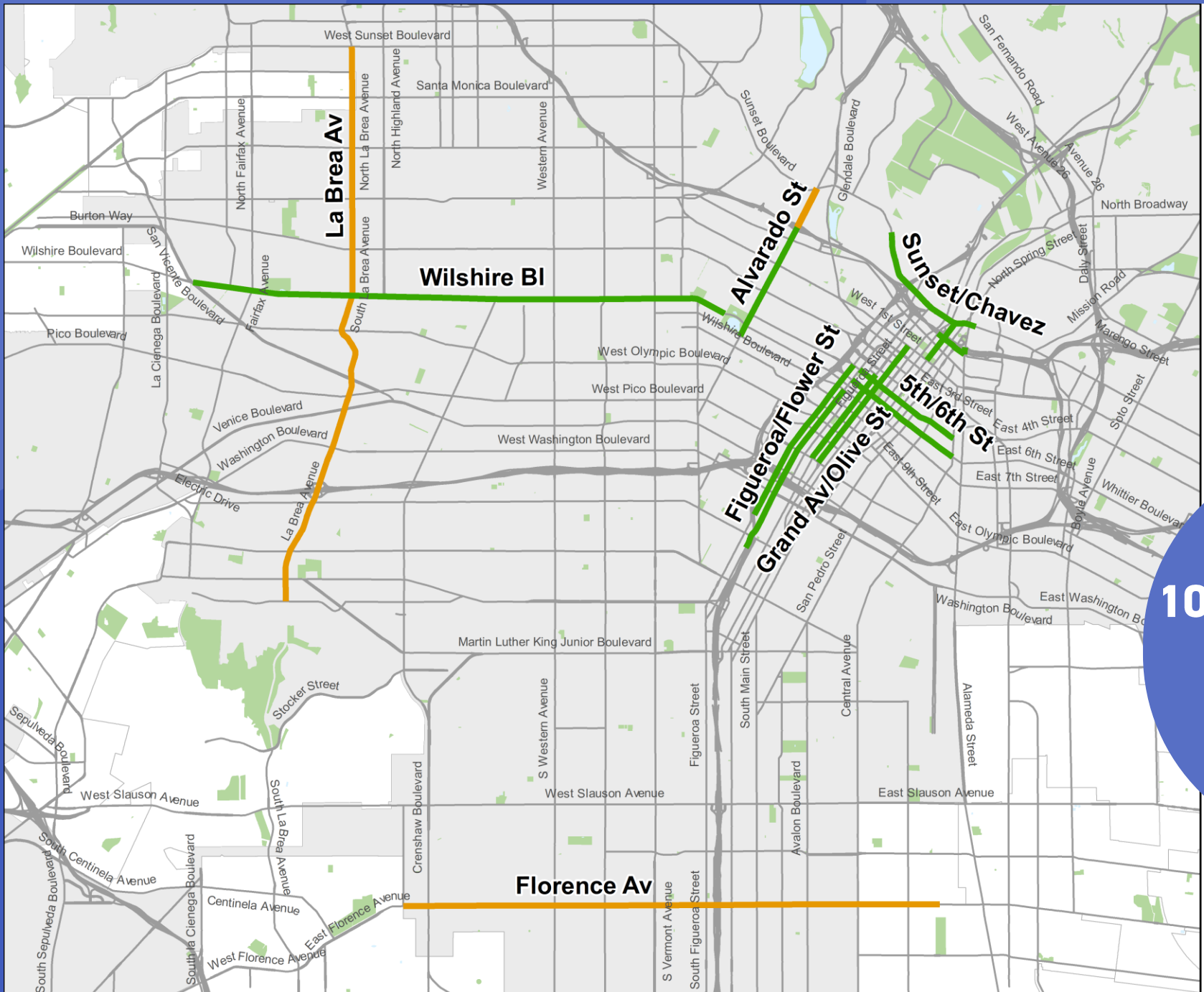


Bus Lane Map



Bus Lane Projects
DRAFT, 5/5/2022

Bus Priority Lane Corridors

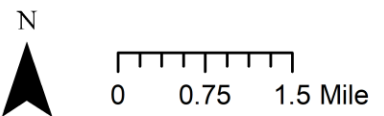
- ✓ Wilshire Bl
- ✓ Sunset/Chavez
- ✓ Figueroa St
- ✓ Flower St
- ✓ Aliso St
- ✓ 5th St
- ✓ 6th St
- ✓ Alvarado St
- ✓ Grand Av
- ✓ Olive St
-  La Brea Av
-  Florence Av



Bus Lanes

-  Completed Corridors
-  In-Progress Corridors

**Nearly
10 Bus Lane Miles
Completed In
18 Months**



Alvarado St Peak Bus Priority Lanes

- LADOT Southern Segment (MacArthur Park to US-101) showing 13% bus speed improvement during morning period (May vs. Oct 2021)
- Caltrans Northern Segment (US-101 to Sunset Bl) anticipated for Summer 2022 opening, pending final implementation arrangements between Caltrans and LADOT



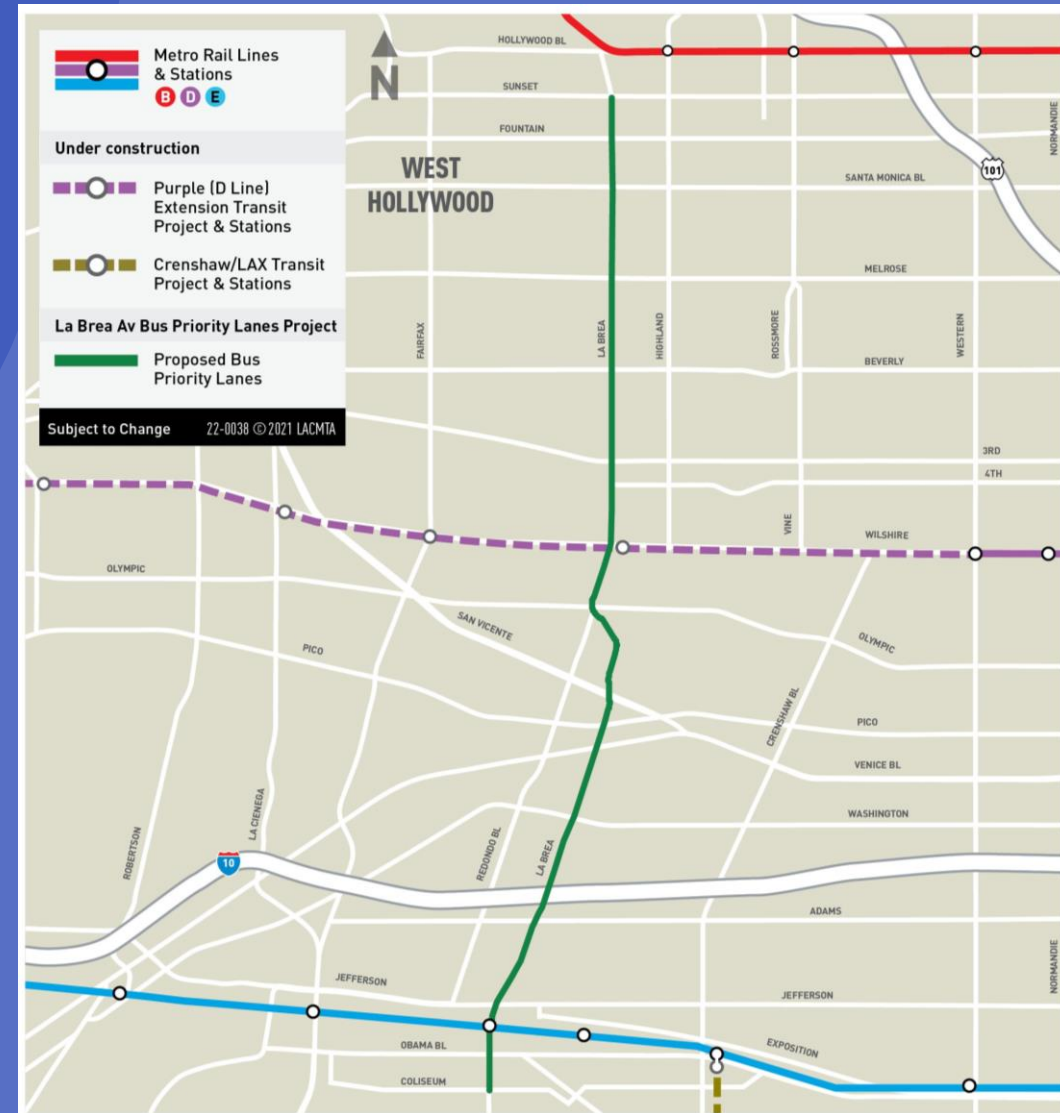
Grand Av-Olive St Bus Priority Lanes

- Post-implementation analysis conducted following November 2021 Opening
- During PM peak period, bus speeds are now up to:
 - 22% faster on Olive St
 - 18% faster on Grand Ave
- 8 in 10 riders agreed buses are more on-time than before
- 8 in 10 riders agreed buses are faster than before
- 94% of riders use these bus lanes nearly everyday
- 93% of riders were going to work or school



La Brea Av Peak Bus Priority Lanes

- **Phase 1** (La Brea/Sunset to La Brea/Olympic) to be implemented starting later next month (June 2022) following conclusion of traditional school year
- **Phase 2** (La Brea/Olympic to La Brea/Coliseum) continues ongoing outreach with stakeholders and would expand the reach of improvements to more Line 212 riders within this community



Florence Av Peak Bus Priority Lanes

- Proposed 5.4 mile segment on Metro Line 111 from Florence A Line (Blue) Station to West Bl
 - Convert peak hour, general purpose curbside lane into bus priority and right turns only
 - Proposed hours weekdays 7-10am and 3-7pm
 - Up to 15% travel time improvement
- Typically, over 16,500 daily boardings
 - 88% of Florence bus riders do NOT own a car
 - 93% are people of color
 - 6 in 10 are below the poverty line
 - 9 in 10 take Metro at least several times per week
- Extensive community outreach underway with proposed implementation in Fall 2022



Red Paint / Thermoplastic Pilot

- Overall, 55% reduction in non-bus vehicles using bus lane, with some intersections with nearly 75% reduction in improper usage
- Additional locations completed in March 2022:
 - Aliso St approaching Alameda St
 - Northbound Alameda St from Aliso St to I-10 El Monte Busway Entrance
 - Eastbound 1st St approaching Spring St
 - Eastbound Hollywood Blvd approaching Vermont Ave



Targeted LADOT Parking Enforcement

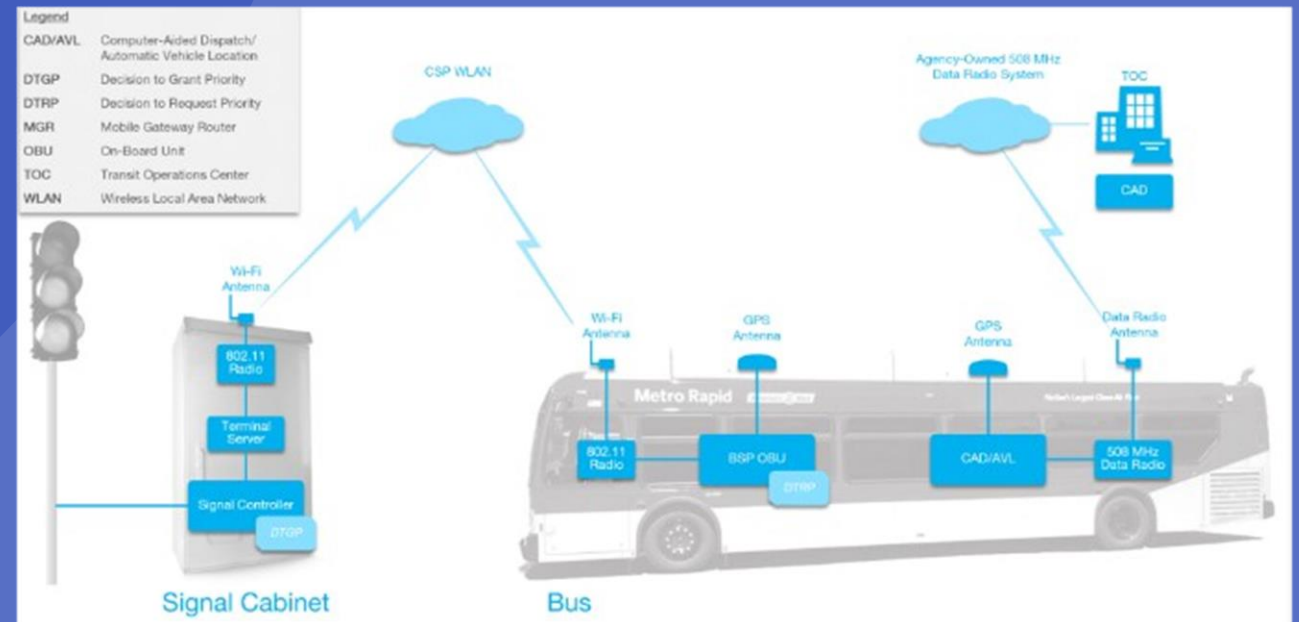
- Partnership began March 2022 based on bus operator and public feedback
- Targeted approach focused on education first
- Preliminary results show improvements:
 - Each week has seen a decrease in number of vehicles in non-compliance
 - In 1st week, over 800 vehicles were warned or instructed to clear the bus lane
 - In 4th week, around 550 vehicles were warned, cited or impounded (33% decrease)
 - Metro Rapid 720 on Wilshire Bl and Metro Line 2 on Alvarado St saw up to 15% travel time improvement in first month of targeted parking enforcement to improve bus lane compliance



Transit Signal Priority (TSP)



- LADOT TSP Upgrade
 - Prioritizes buses at 1,200+ Intersections with 10% travel time savings
 - Managing RFP and Contract Oversight
 - Near-Term Improvements Began Feb 2022
 - Reactivate Rapid Infrastructure to work with NextGen Bus Plan
 - Long-Term Improvements Begin Dec 2022
 - Replace legacy loop-based system with more intelligent and reliable, cloud-based technology
- Countywide TSP Upgrade
 - Began Jan 2022 on a similar improvement covering 300 Countywide intersections



All Door Boarding Expansion



- 2,900 Bus Mobile Validators to be installed on rear doors of buses
- Contract modification approved Feb 2022
- Boarding speeds up to 2X faster than front door only, especially at busier bus stops
- Reduces crowding at front door and bus operator area
 - Minimizes unnecessary distractions
 - Naturally facilitates social distancing
- Improves customer experience



Bus Stop Bulb Outs & Boarding Islands

- Not every corridor can easily accommodate bus lanes without adverse tradeoffs
- Next best treatment is to implement bus stop bulb outs or boarding islands
 - Allows buses to stop in-lane to quickly re-enter traffic flow
 - Improves safety and customer experience by expanding waiting area and creating new space to install amenities
- Allows for quick, effective improvements where bus lanes may not be feasible
- Requires strong partnership with public works agencies



Bus Bulb, Portland, OR (credit: Ben Baldwin)

Looking Ahead

- Original \$1B budget estimate applied wide estimates on planning level order of magnitude
- Detailed planning and partnership with LADOT has improved cost/benefit of this program to ensure tools are focused where needed and supported most
- In addition to Bus Priority Lane expansion on more corridors, Transit Signal Priority and All Door Boarding projects to significantly ramp up in FY23
- Initial analysis and planning work to be conducted in FY23 to begin capital intensive campaigns in FY24 for bus stop bulb outs, boarding islands, terminal layover improvements and other tools
- Five (5) new hires in FY23 budget request to accelerate technical and outreach efforts
- Staff will continue to bring forward annual program to Board reflective of most accurate cost figures tailored to this tactical infrastructure program

