

Metro

*Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
3rd Floor Board Room*



Agenda - Final

Thursday, July 18, 2019

9:00 AM

**One Gateway Plaza, Los Angeles, CA 90012,
3rd Floor, Metro Board Room**

Operations, Safety, and Customer Experience Committee

Mike Bonin, Chair

Mark Ridley-Thomas, Vice Chair

Jacquelyn Dupont-Walker

John Fasana

Robert Garcia

John Bulinski, non-voting member

Phillip A. Washington, Chief Executive Officer

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(ALSO APPLIES TO BOARD COMMITTEES)

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A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board must be submitted electronically using the tablets available in the Board Room lobby. Individuals requesting to speak will be allowed to speak for a total of three (3) minutes per meeting on agenda items in one minute increments per item. For individuals requiring translation service, time allowed will be doubled. The Board shall reserve the right to limit redundant or repetitive comment.

The public may also address the Board on non agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for one (1) minute during this Public Comment period or at the discretion of the Chair. Speakers will be called according to the order in which their requests are submitted. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

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REMOVAL FROM THE BOARD ROOM The Chair shall order removed from the Board Room any person who commits the following acts with respect to any meeting of the MTA Board:

- a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
- b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with the due and orderly course of said meeting.

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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER

ROLL CALL

19. **SUBJECT: OPERATIONS EMPLOYEES OF THE MONTH** [2019-0474](#)

RECOMMENDATION

Operations Employees of the Month

Attachments: [Presentation](#)

20. **SUBJECT: ORAL REPORT ON NEW BLUE PHASE 2** [2019-0475](#)

RECOMMENDATION

RECEIVE oral report on New Blue Phase 2.

Attachments: [Presentation](#)

21. **SUBJECT: METRO BUS FLEET FORECAST AND ZERO EMISSION
BUS PROGRAM UPDATE** [2019-0458](#)

RECOMMENDATION

RECEIVE AND FILE status report on the Zero Emission Bus Program and Bus Fleet Management Plan (BFMP) which summarizes Metro's directly operated and purchased transportation bus vehicle requirements over the next ten years.

Attachments: [Presentation](#)

22. **SUBJECT: NEXTGEN REGIONAL SERVICE CONCEPT** [2019-0460](#)

RECOMMENDATION

CONSIDER:

- A. APPROVING the Regional Service Concept, which is the framework for restructuring Metro's bus routes and schedules for NextGen and includes:
1. Goals and objectives of the new bus network;
 2. Measures of success;
 3. Route and network design concepts based on public input and data analysis;
 4. Framework for balancing tradeoffs that consider Metro's Equity Platform; and
- B. FOLLOWING approval by all five Regional Service Councils, the Board shall then approve the final NextGen Service Plan.

25. SUBJECT: ENTERPRISE ASSET MANAGEMENT SYSTEM

[2019-0373](#)

RECOMMENDATION

CONSIDER:

- A. ESTABLISHING a Life of Project (LOP) Budget for the Enterprise Asset Management (EAM) Project, capital project number 207155, in the amount of \$45,800,000;
- B. AUTHORIZING the Chief Executive Officer to award a 37-month, firm fixed price Contract No. PS51755000 to 21Tech LLC, in the amount of \$10,205,207 for the Enterprise Asset Management System Software Acquisition and Software Support Services, subject to the resolution of any properly submitted protest(s), if any; and
- C. APPROVING Contract Modification Authority specific to Contract No. PS51755000 in the amount of \$2,041,041 or 20% of the total contract value, to cover the costs of any unforeseen services or license fees that may be necessary to complete this phase of the project.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary EAM](#)
 [Attachment C - Capital Project 207155](#)

**26. SUBJECT: OFFICE OF THE INSPECTOR GENERAL REPORT ON
METRO SECURITY PERFORMANCE REVIEW FISCAL
YEAR 2018**

[2019-0481](#)

RECOMMENDATION

RECEIVE AND FILE OIG report on Metro Security Performance Review Fiscal Year 2018.

Attachments: [Attachment A - Metro Security Performance Review Fiscal Year 2018
Presentation](#)

(ALSO ON EXECUTIVE MANAGEMENT COMMITTEE)

27. SUBJECT: MONTHLY UPDATE ON TRANSIT SAFETY AND SECURITY PERFORMANCE

[2019-0496](#)

RECOMMENDATION

RECEIVE AND FILE Transit Safety and Security Report.

Attachments: [Attachment A - System-Wide Law Enforcement Overview May 2019](#)
[Attachment B - MTA Supporting Data May 2019](#)
[Attachment C - Key Performance Indicators May 2019](#)
[Attachment D - Transit Police Summary May 2019](#)

(ALSO ON EXECUTIVE MANAGEMENT COMMITTEE)

43. SUBJECT: METRO FREEWAY SERVICE PATROL

[2019-0208](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. AWARD a firm fixed unit rate Contract No. FS58039000 for Metro Freeway Service Patrol (FSP) Regional light duty towing services Region 1 to Kenny's Auto Service, in an amount not to exceed \$20,936,369 for 52 months, subject to resolution of protest(s), if any; and,
- B. AWARD a firm fixed unit rate Contract No. FS58039001 for Metro Freeway Service Patrol (FSP) regional light duty towing services Region 2 to Platinum Tow and Transport in an amount not to exceed \$24,006,823 for 52 months, subject to resolution of protest(s), if any; and,
- C. INCREASE Contract Modification Authority (CMA) to 29 existing Freeway Service Patrol contracts as delineated below for a total amount of \$14,521,000 thereby increasing the CMA amount from \$11,161,294 to \$25,682,294 and extend the periods of performance as follows:
 - Beat no. 1: All City Tow Contract No. FSP2828200FSP141, for \$219,000 for 8 months
 - Beat no. 2: Citywide Towing Contract No. FSP2785600FSP142, for \$258,000 for 9 months
 - Beat no. 3: Hollywood Car Carrier Contract No. FSP3469400B3/43, for \$849,000 for 9 months
 - Beat no. 4: Frank Scotto Towing Contract No. FSP2788200FSP144, for \$237,000 for 9 months
 - Beat no. 5: Sonic Towing, Inc. Contract No. FSP3469500B5/17, for \$320,000 for 11 months
 - Beat no. 6: Neighborhood Towing 4 U Contract No. FSP3469600B6, for \$338,000 for 11 months
 - Beat no. 8: Citywide Towing Contract No. FSP2825800FSP148, for \$293,000 for 9 months

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- Beat no. 9: Frank Scotto Towing Contract No. FSP3470000B9, for \$394,000 for 11 months
 - Beat no. 10: Neighborhood Towing 4 U Contract No. FSP3848100FSP1410, for \$365,000 for 12 months
 - Beat no. 12: Tip Top Tow Contract No. FSP2826700FSP14, for \$796,000 for 12 months
 - Beat no. 13: Reliable Delivery Service Contract No. FSP2831500FSP1413, for \$440,000 for 7 months
 - Beat no. 17: Sonic Towing, Inc. Contract No. FSP3469500B5/17, for \$241,000 for 9.5 months
 - Beat no. 18: Bob & Dave's Towing, Inc. Contract No. FSP2690300FSP1418, for \$695,000 for 14.5 months
 - Beat no. 20: Bob's Towing Contract No. FSP2836600FSP1420, for \$211,000 for 12 months
 - Beat no. 21: Bob's Towing Contract No. FSP2839000FSP1421, for \$153,000 for 12 months
 - Beat no. 24: T.G. Towing, Inc. Contract No. FSP2833200FSP1424, for \$275,000 for 11 months
 - Beat no. 28: Hadley Tow Contract No. FSP3847300FSP1428, for \$99,000 for 11 months
 - Beat no. 33: Mid Valley Towing Contract No. FSP2851900FSP1433, for \$266,000 for 9 months
 - Beat no. 34: South Coast Towing, Inc. Contract No. FSP2839600FSP1434, for \$292,000 for 11 months
 - Beat no. 36: Hadley Tow Contract No. FSP2841400FSP1436, for \$288,000 for 11 months
 - Beat no. 37: Reliable Delivery Service Contract No. FSP3696000FSP1437, for \$690,000 for 11 months
 - Beat no. 38: Steve's Towing Contract No. FSP38468001438, for \$106,000 for 11 months
 - Beat no. 39: Jon's Towing Contract No. FSP3470400B27/39, for \$253,000 for 9.5 months
 - Beat no. 41: T.G. Towing, Inc. Contract No. FSP2760200144, for \$322,000 for 8 months
 - Beat no. 42: Platinum Tow & Transport Contract No. FSP2842100FSP1442, for \$290,000 for 11 months
 - Beat no. 43: Hollywood Car Carrier Contract No. FSP3469400B3/43, for \$828,000 for 9.5 months
 - Beat no. 70: Tip Top Tow Contract No. FSP3471300B70, for \$920,000 for 7 months
 - Beat no. 71: Bob & Dave's Towing, Inc. Contract No. FSP3471500B71, for \$932,000 for 6 months
 - Region 1: Kenny's Auto Service Contract No. FSP13-R1, for \$3,151,000 for 9 months



Board Report

File #: 2019-0474, **File Type:** Oral Report / Presentation

Agenda Number: 19.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JULY 18, 2019**

SUBJECT: OPERATIONS EMPLOYEES OF THE MONTH

RECOMMENDATION

Operations Employees of the Month

DISCUSSION

Operations Employees of the Month recognizes Transportation, Maintenance and Logistics frontline employees for their outstanding leadership contributions to the Operations Department.

July Employees of the Month

Operations, Safety, And Customer Experience Committee



Metro

Employees of the Month



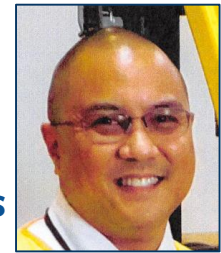
Transportation

CCTV Observer
Cenobia Segura



Maintenance

Stops & Zones
Supervisor
Jose Ramano Santos





Board Report

File #: 2019-0475, **File Type:** Oral Report / Presentation

Agenda Number: 20.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JULY 18, 2019**

SUBJECT: ORAL REPORT ON NEW BLUE PHASE 2

RECOMMENDATION

RECEIVE oral report on New Blue Phase 2.

Item 20

New Blue & Expo Service Update

July 18, 2019

Operations, Safety & Customer Experience Committee Meeting



Metro

New Blue Phase 2

Blue Line Bus Shuttle Service Observations

Frequency (Peak Period)

- Line 860 Express: 6-12 minutes
- Line 863 Select: 12 minutes/M-F
- Line 864 Local: 6-12 minutes



Average Weekday Bus Shuttle Ridership - Phase 1

- Line 860 Express: 4,882
- Line 861 Select: 1,376
- Line 862 Local: 15,671

Average Weekday Bus Shuttle Ridership - Phase 2

- Line 860 Express: 5,572
- Line 863 Select: 2,216
- Line 864 Local: 23,897

Average Weekend Bus Shuttle Ridership - Phase 1

- Line 860 Express: 831
- Line 862 Local: 11,496

Average Weekend Bus Shuttle Ridership - Phase 2

- Line 860 Express: 1,431
- Line 864 Local: 15,415

* March and June 2019 average ridership comparison

Average Rail Service Ridership Phase 1 (May 2019)

- Weekday: 29,560
- Weekend: 18,687

Average Rail Service Ridership Phase 2 (June 2019)

- Weekday: 10,950
- Weekend: 8,357

New Blue Phase 2 Expo Line Bus Shuttle Service Observations

Frequency During Peak Periods

- Line 856 (Local): 6 -12 mins during peak, 12 mins during mid-day and weekends & 20 mins during late nights

Average Weekday Ridership

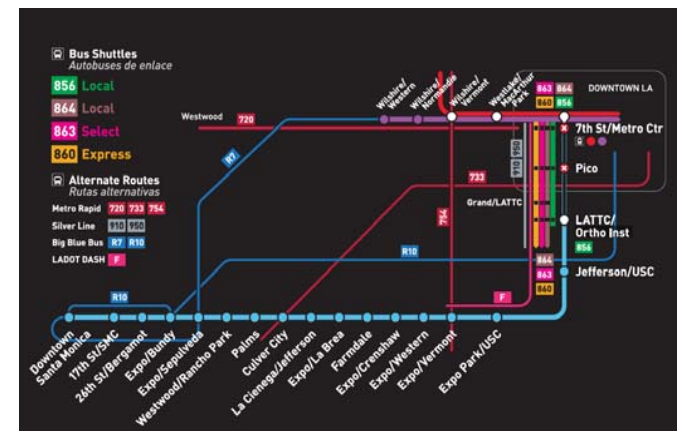
- Line 856: 9,000

Average Weekend Ridership

- Line 856: 5,371

Alternate Service

- Silver Line 910 & 950
- Metro Rapid: 720, 733 & 754
- Big Blue Bus: R7 & R10
- LADOT DASH: F
- *Can also take Line 864 Local*



New Blue Phase 2

Flower/Figueroa Street Bus-Only Lane Observations

Occupancy

- The New Blue northern segment shuttle service plan (including two Expo Line stations: Pico and 7th St/Metro Center) requires 70 buses per hour during peak service to meet demand, including other municipal operators who utilize the bus lanes

Enforcement

- Eight assigned LAPD motor officers
- Enforcement and traffic officer support continues to be critical for proper utilization of the bus-only lane

Shuttle Customer and Bus Operator Feedback

- Positive feedback relative to improved shuttle travel times

New Blue Phase 2 – Customer Feedback

New Blue Metro Customer Feedback

- Received approximately 120 questions and comments via the project hotline, emails, texts, and social media, related to trip planning, requests for increased capacity for Line 860 Express, and challenges with TAP transfers (resolved).



Jon 🦊 Fox | UX @JonFoxUX
June 24, 2019 - 4:23pm • View Post

@metrolosangeles I just took the Expo line to LATTC and then the shuttle to 7th/Metro to go to Union. I notice that the Tap system deducted both at 26th St and again at 7th/Metro which should be a transfer. Will the system be updated to show shuttle transfer and not deduct twice?



Brocco9 @Brocco9
June 26, 2019 - 7:10am • View Post

@metrolosangeles there needs to be more busses running north between 6:55 am and 7:07 am at willow. There are SO many people waiting to get in a bus and barely anyone gets a seat. Why haven't you thought of this after so many months??



John Zelek
@jzelek

Genuine tweet alert: I am extremely impressed with how the @metrolosangeles staff is handling this big 'ol Expo Line mess.

6:21 PM · Jun 24, 2019 · Twitter for iPhone



Board Report

File #: 2019-0458, File Type: Informational Report

Agenda Number: 21.

OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE JULY 18, 2019

SUBJECT: METRO BUS FLEET FORECAST AND ZERO EMISSION BUS PROGRAM UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the Zero Emission Bus Program and Bus Fleet Management Plan (BFMP) which summarizes Metro's directly operated and purchased transportation bus vehicle requirements over the next ten years.

ISSUE

In April 2016, Metro's Board of Directors approved a motion to convert Metro's bus fleet to Zero Emission Buses (ZEB) by 2030. Also, in December 2018, the California Air Resources Board (CARB) approved the Innovative Clean Transit (ICT) Regulation that sets a statewide goal for public agencies to gradually transition to 100% ZEB fleet by 2040. Further, Metro's bus vehicle requirements indicate a need to replace 834 buses by 2022. To ensure the fleet is maintained in a State of Good Repair and sufficient quantities are available for service, Metro will need to effect a procurement by September 2019.

DISCUSSION

In April 2016, Metro's Board of Directors approved a motion to convert Metro's bus fleet to Zero Emission Buses (ZEB) by 2030. Also, in December 2018, the California Air Resources Board (CARB) approved the Innovative Clean Transit (ICT) Regulation that sets a statewide goal for public agencies to gradually transition to 100% ZEB fleet by 2040. The ICT Regulation includes the following purchase requirement timeline:

- 2023 - 2025: 25% of buses purchased in this period must be ZEB
- 2026 - 2028: 50% of buses purchased in this period must be ZEB
- 2029 - onward: 100% of buses purchased in this period must be ZEB

Metro has been working to comply with both the Metro Board directive and CARB's ICT Regulation by implementing a two-phase approach. Phase 1 focuses on implementing near-term changes that can be readily applied with existing technology, with minimal impact to service, and minimal risk. It also includes the development of a Master Plan for the transition of the balance of Metro's system.

Specifically, in Phase 1:

- Electrification of Metro Orange Line by 2020
 - Delivery of New Flyer and BYD battery electric buses; quantities of 40 and 5, respectively.
 - Terminal charging installation at North Hollywood and Chatsworth Stations.
 - Overnight charging installation at Division 8 in Chatsworth.
- Electrification of Metro Silver Line by approximately 2021
 - Delivery of BYD battery electric buses, quantity of 60.
 - Terminal charging installation at El Monte Bus Station and Harbor Gateway Transit Center.
 - Overnight charging installation at Division 9 in El Monte.
- Development of Zero Emission Master Plan (Plan)
 - The Plan will define where and how to expand electric bus service by division given current technology and infrastructure capabilities.
 - The plan will be developed iteratively as information becomes available (e.g. NextGen).
 - The first iteration is expected to be completed by September 2019.

In Phase 2, Metro will implement the Zero Emission Master Plan as approved by the Board, will continue to assess ZEB technologies as they mature, and take measured steps toward full transition to 100% ZEB fleet for use throughout Metro's operating region.

Challenges to transitioning to 100% ZEB operation include:

- Infrastructure:
 - Power to the divisions needs to be increased to maintain existing levels of transit service capability. For divisions in SCE territory, the average increase is from 5 MW to 15 MW. Risk is time required by utilities to implement upgrades.
 - Charging infrastructure needs to be added to divisions. The very limited space constraints at the divisions dictates that work must be done in stages to preclude impact to service. The risk is the time needed to complete work.
- Vehicles and technology:
 - Procurement of ZEB's cannot exceed capacity of infrastructure to charge them. Risk is that over-capacity of ZEB's will result in them being severely underused and the warranty period being wasted.
 - Per CA regulations, by 2022 curb weight limits will drop from 24,000 lb. to 22,000 lb. The risks are that currently compliant ZEB configurations will not comply in 2022 or will not be able to add batteries to increase range.
 - Performance of ZEB's still does not match that of CNG buses. Risk is that number of ZEB's procured will need to exceed number of CNG buses being retired just to maintain existing levels of transit service
 - ZE vehicle and charging strategies are still not fully mature or service proven. Risk is the limited interoperability between vehicles and charging equipment will impact service.
- Costs:

- Infrastructure: The estimated cost to transition Metro's divisions to 100% ZE operations is approximately between \$700M to \$1B.
- Vehicles: ZE buses are currently \$100,000 to \$300,000 more expensive than conventional 40 ft. CNG buses.
- Operating Costs: are not fully known at this time
- Utility Costs: are not fully known at this time.

BUS FLEET MANAGEMENT PLAN

Metro also maintains a Bus Fleet Management Plan (BFMP) that provides a long-term outlook on bus replacement requirements based on service needs, State of Good Repair (SGR) and life-cycle.

Assumptions to the BFMP include:

- Life Cycle - Federal Transit Administration (FTA) defines a bus life cycle at 12 years. Metro allows buses to extend to 15 years. However, Metro recently has extended buses to 18 years to maintain the fleet requirement.
- Spare Ratio - FTA recommends an additional 20% fleet above the peak vehicle requirement (PVR) to accommodate regular maintenance of transit vehicles and ability to scale transit service when needed. While Metro aims to provide a 20% spare ratio, it is allowable to drop to 15%.
- Fleet Requirement - based on current peak hour service levels
- New Projects - Upcoming initiatives such as future Bus Rapid Transit (BRT) lines or new services are also considered

Based on the BFMP, our peak vehicle requirement (PVR) is 1,961 buses. Added with a 20% spare ratio, our total fleet size is currently 2,368 buses.

DECOMMISSIONING OF BUSES AND FUTURE IMPACTS

Between 2018 and 2022, Metro anticipates decommissioning of 834 buses. An additional 351 buses will also be eligible for decommissioning by 2024. However, Metro's current order of electric and CNG buses approved in 2017 will result in delivery of only 470 new buses. Therefore, Metro will be 364 buses short in 2022 without additional action taken.

OPTIONS TO BRIDGE THE GAP

In 2020 there will be a shortage of 364 buses if no additional action is taken. The need may be greater if the ZEB to CNG replacement ratio exceeds 1:1, there are reliability issues due to the introduction of new technologies, or if there are unexpected operational challenges. The following options exist to mitigate the anticipated shortage:

- Exercise existing CNG bus option for 440 buses (205 40 ft. + 235 60 ft.)
- Exercise existing Electric bus options for 100 options (forty 40 ft + sixty 60 ft)
- Re-tank buses due for retirement
 - Impacts include extending a component of the existing bus fleet while other key operational components continue to age;
 - No improvement to emissions levels

- Reduce Service to match bus fleet availability
 - Impacts include more crowding, longer wait times, shorter spans, and/or less geographic coverage, as well as reduced customer satisfaction.

DETERMINATION OF SAFETY IMPACT

This will report will have a positive impact on system safety, service quality, and system reliability for our customers.

FINANCIAL IMPACT

Currently, this report does not have a financial impact.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

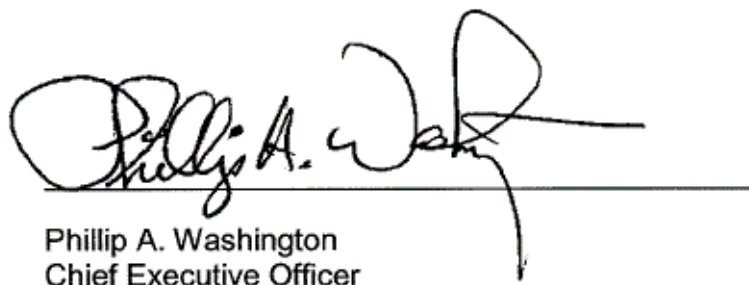
This item supports the following Strategic Goals 1) Provide high-quality mobility options that enable people to spend less time traveling and 5) Provide responsive, accountable, and trustworthy governance within the Metro organization.

NEXT STEPS

Staff will continue to monitor and update the Bus Fleet Forecast as data are available and projections revised, reflecting any new Board approved projects, operating results, and proposed bus procurement program. In September 2019, staff will return to the Board with a recommended bus procurement program to fulfill the near-term gap in fleet requirement.

Prepared by: Conan Cheung, Sr. Executive Officer, (213) 418-3034
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Medford Auguste, Sr. Transportation Planner, (213) 922-4814

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108



Phillip A. Washington
Chief Executive Officer

Presentation Overview

- Transition to ZEB Operations - Guiding Principles
- Bus Fleet Requirements & Availability
- Current Background & Timeline
- Strategic Plan for ZEB Implementation
- Phase I | Update on Near-Term Activities
 - Silver and Orange Line Electrification
 - ZEB Master Plan
 - Challenges
 - Utility Grid Modeling
 - Conversion of Operating Divisions



Transition to ZEB Operations – 2017 Guiding Principles

- Continue to replace aging bus fleet (~200 Buses per Year)
 - Status: 465 buses ordered in 2017.
 - ~350 buses to be delivered in 2019.
- Upgrade current CNG buses to “Near-Zero” Low NO_x engines
 - Status: 196 buses upgraded at Mid-life (On-Target)
- Maintain existing bus fleet in a “State of Good Repair”
 - Status: Fleet age is increasing.
 - Extend Life (re-tank & recycle into “mid-life”) or replace additional 369+/- buses by 2022
 - Assumes 1:1 replacement of CNG to Electric
- Improve Service Quality and Reliability
 - Status: New CNG Buses placed into service in 2019.
- Transition Metro Orange Line (MOL) to Zero-Emission by 2020
 - Status: On Target for Completion
- Transition Metro Silver Line (MSL) to Zero-Emission by ~2021
 - Status: On Target for Completion
- Goal of 100% Zero -Emission Bus Fleet by 2030
 - Status: Master Plan addresses implementation roadmap.



Bus Fleet Requirements & Availability

Metro Bus Fleet Decommissioning Forecasts

Fleet Planning Parameters

Peak Vehicle Requirement

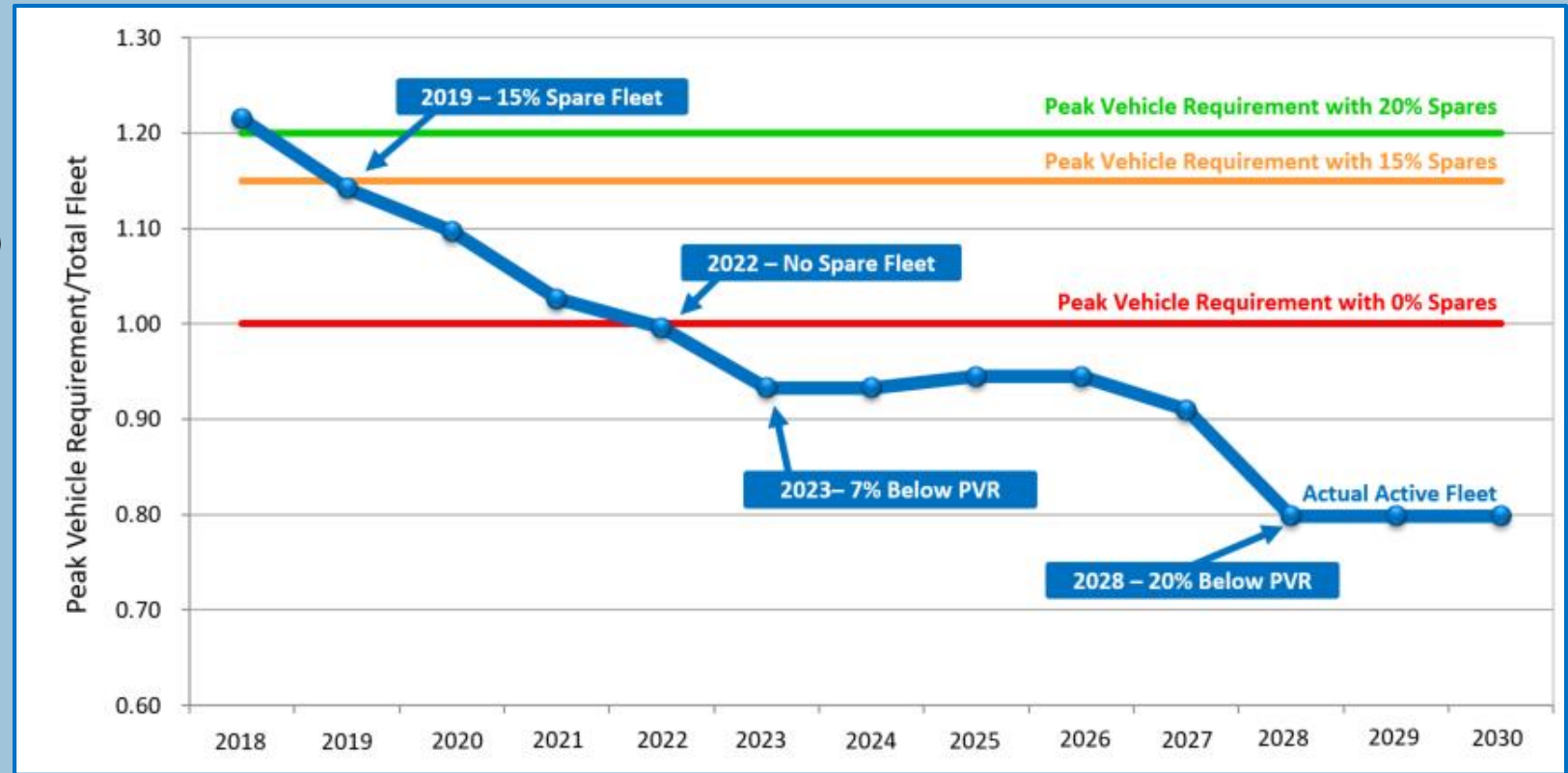
- 2,300+ buses (scheduled service + spares)
- 1,900+ buses (scheduled service only)

Spare Ratio

- 20% > (FTA requirement)
- 15% - 20% (Metro policy)

Bus Retirement Age

- 12 years (FTA requirement)
- 15-18 years (Metro Policy)



- 834 additional buses needed by FY2022 to meet current service levels with exceeding FTA spare ratio and age requirements
- 465 buses on order (~350 buses to be delivered in 2019)



Current Background & Timeline

- **January 2019**
 - Provided Preliminary update to Board Staff to indicate need for procurement actions

- **July 2019**
 - Provide Metro Board with a ZEB Master Plan update
 - Evaluate opportunities to expedite transition
 - Bundle division conversions to single procurements
 - Acquire or lease additional operating space

- **September 2019**
 - Refine cost estimates, infrastructure phasing schedule, and procurement strategies
 - Procurement Decision (using contract Options)

- **Spring 2020**
 - Provide Metro Board with a ZEB Master Plan update
 - New Bus Procurement Decision – Fleet Mix (TBD)
 - Delivery in 2023 and later.

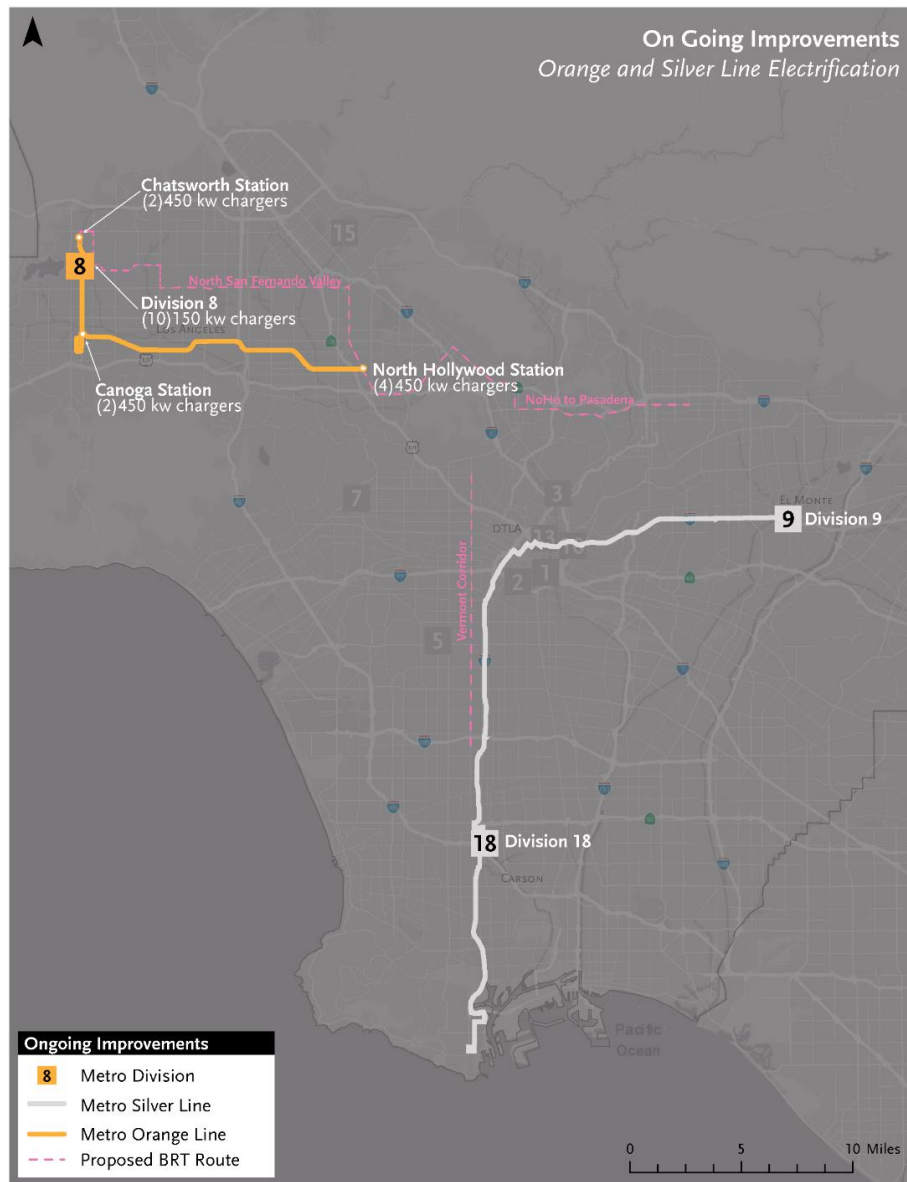


Strategic Plan for ZEB Implementation

- Phase 1: Near-Term Activities (2020 – 2021)
 - Orange Line Electrification – Charging Infrastructure & Vehicles
 - Silver Line Electrification – Charging Infrastructure & Vehicles
 - Upgrade Near-Zero CNG Engines to RCNG at mid-life
 - Refine & Develop Master Plan Details
- Phases 2/3: Long-Term Activities (2022 – 2030, and beyond)
 - Conversion of Divisions from CNG Fueling to Battery Charging
 - Procurement of Vehicles
- Key Milestones 2019:
 - ZEB Technology Assessment/ZEB Master Plan
 - Dimensions of Phases 2 and 3



Silver and Orange Line Electrification



- Orange Line (60-foot BEBs)
 - 45 Buses (40 New Flyer, 5 BYD)
 - NF Pilot bus due Summer 2019
 - NF and BYD Production Complete Fall 2020
 - Depot Charging (Division 8)
 - Charger Commissioning: July 2019
 - En Route Charging
 - Expected Completion: Fall 2020
- Silver Line (40-foot BEBs)
 - 60 Buses (BYD)
 - Pilot: TBD
 - Production Completed by Winter 2021
 - Depot Charging (Division 9)
 - Design considers full-scale deployment and upgrading capacity to 18 MW. (Current Limit of 5 MW)
 - Applied for SCE Charge-Ready Transport
 - En Route Charging
 - Design On-going for El-Monte & Harbor Gateway



ZEB Master Plan - Challenges

1. Bus-Related Challenges:

- Performance Standard: 65mph top speed; sustain 10% grade; 250+ mile range
 - Currently, up to 120 mile range with Full HVAC, Passenger Loading
- Curb Axle Weight : Current limit is 24,000 lbs.
 - In 2022 limit drops to 22,000 lbs.
 - Limits ability to add batteries to increase range
- Technology reliability risks – not service proven

2. Division Charging Infrastructure Challenges:

- Limited grid capacity at divisions
 - Limits number of BEBs that can be assigned
- Long lead times for utilities to implement necessary grid upgrades
 - Need to increase capacity from ~5 MW to ~15 MW
 - 3 to 5 year cycle from planning to deployment
- Limited space at divisions
 - Conversion must be done sequentially, adding time to schedule



ZEB Master Plan - Challenges

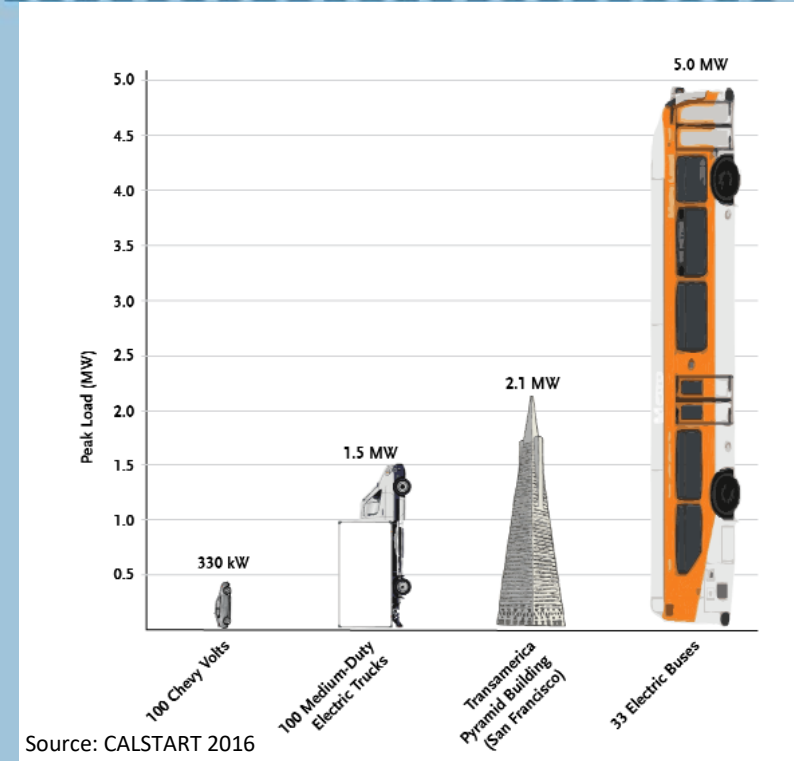
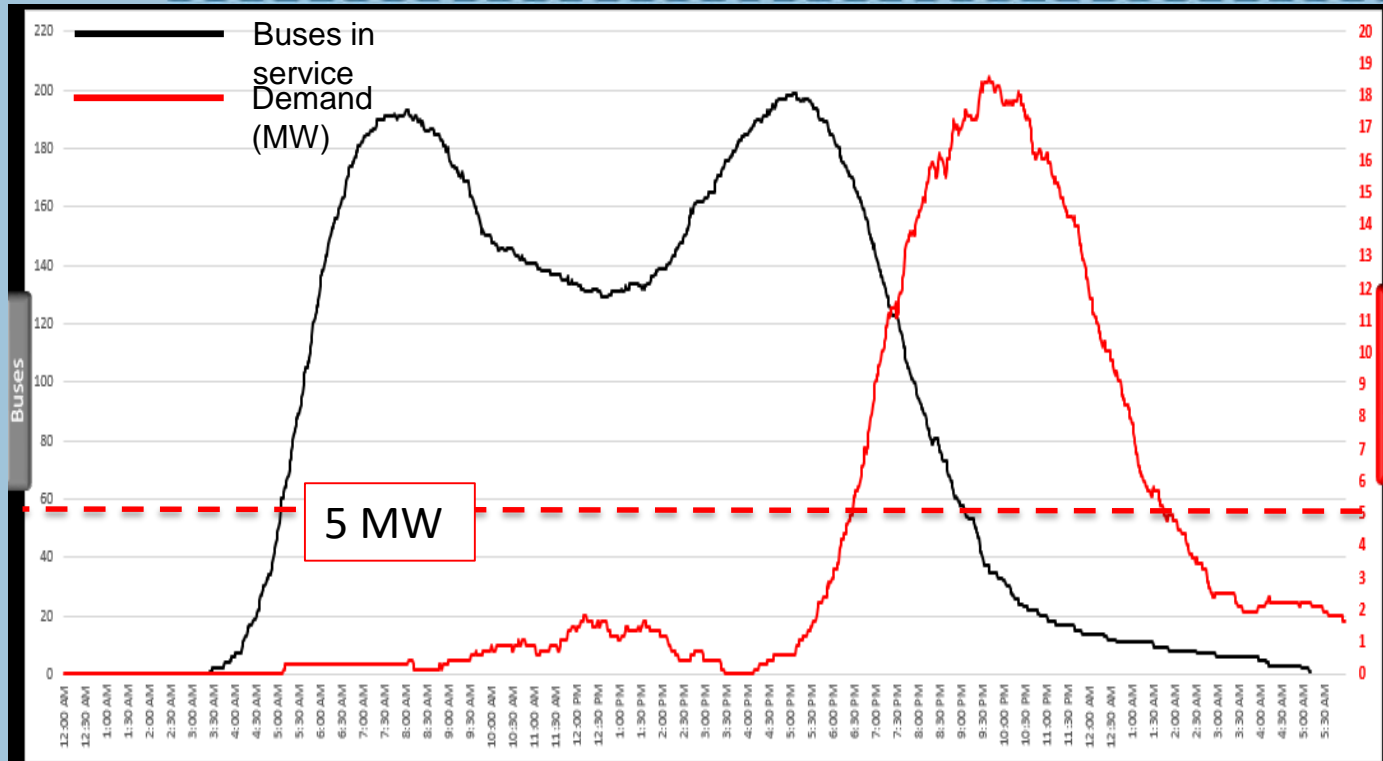
3. Funding Challenges:

- Additional capital funding required for 100% ZEB program
- Preliminary Capital Cost Estimates
 - ~\$700 Million to ~\$1 Billion in Infrastructure costs
 - ~\$400 Million in additional vehicle costs.
- Operational:
 - Utility Rates and resulting costs are under revision.
 - Operating Costs are not fully known at this time.

Need to optimize depot and en route charging strategies; vehicle performance; service block ranges; and costs.



ZEB Master Plan – Utility Grid Modeling (Division 9 Example)

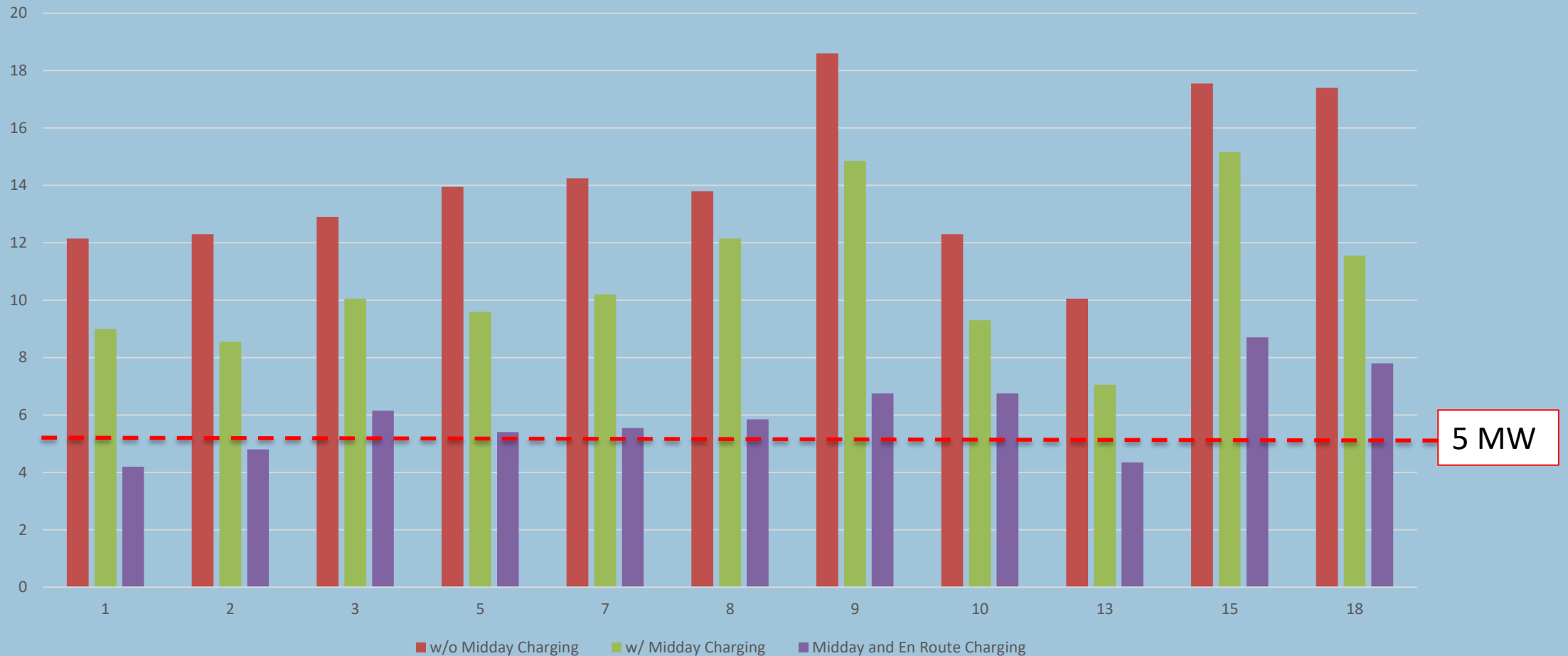


Source: CALSTART 2016

- Modeling is Basic Input to Utility Planning
- ~18 MW needed at Division 9 with no En Route Charging
 - Transamerica Pyramid Building requires 2.1 MW
 - Only 5 MW is capacity currently available



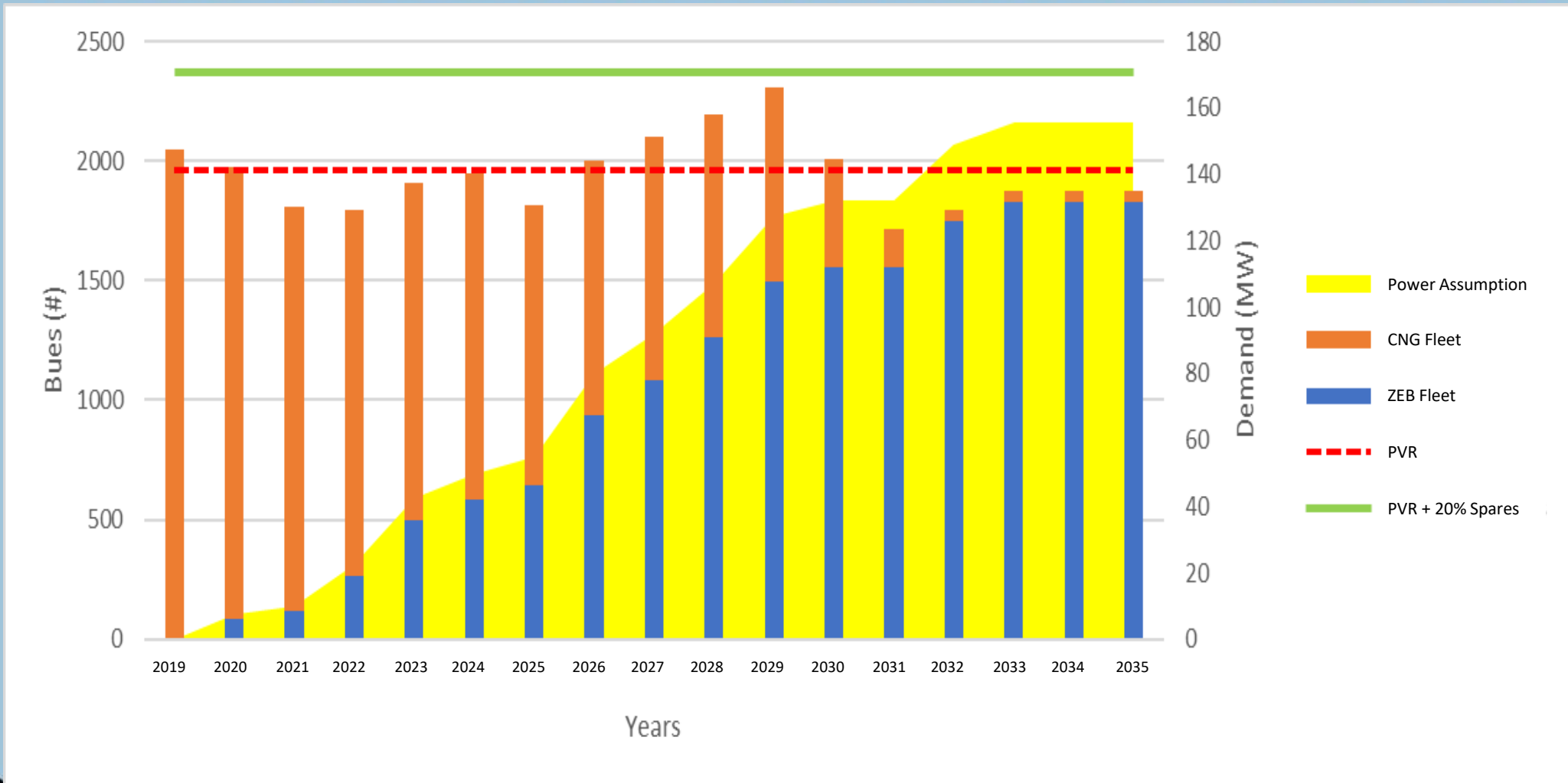
ZEB Master Plan – Utility Grid Modeling (All Divisions)



- Mid-day and en route charging can optimize:
 - Power limitations
 - Range and weight
- Sub-optimal for fleet size, operating costs, and bus parking

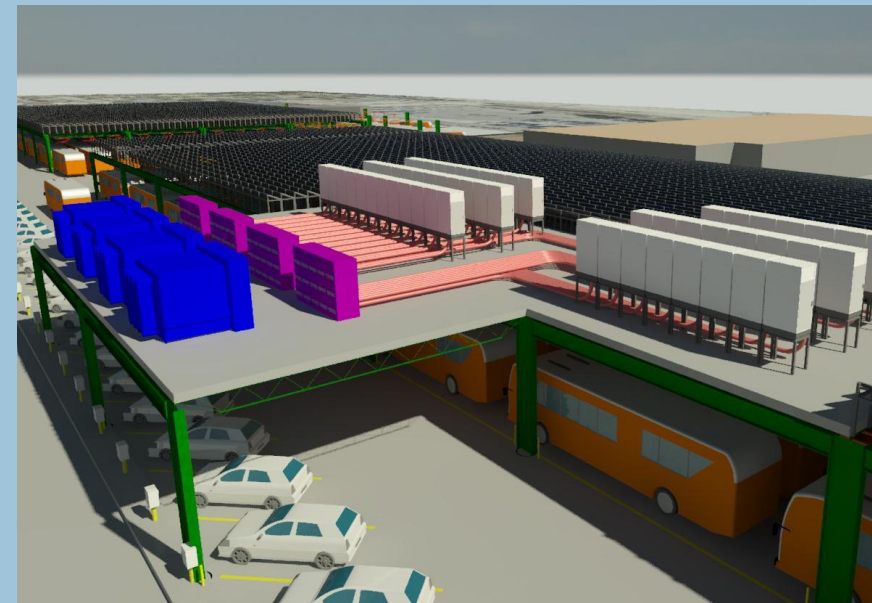
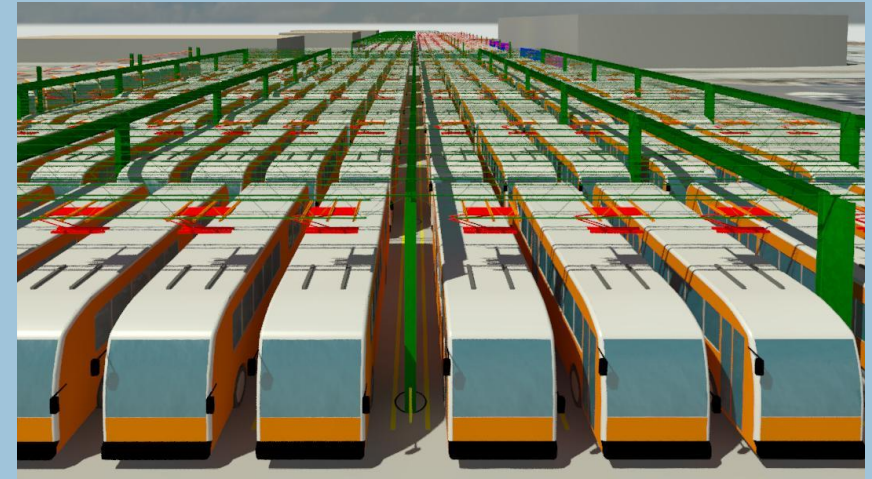


ZEB Master Plan – Conversion of Divisions (Phasing Schedule)

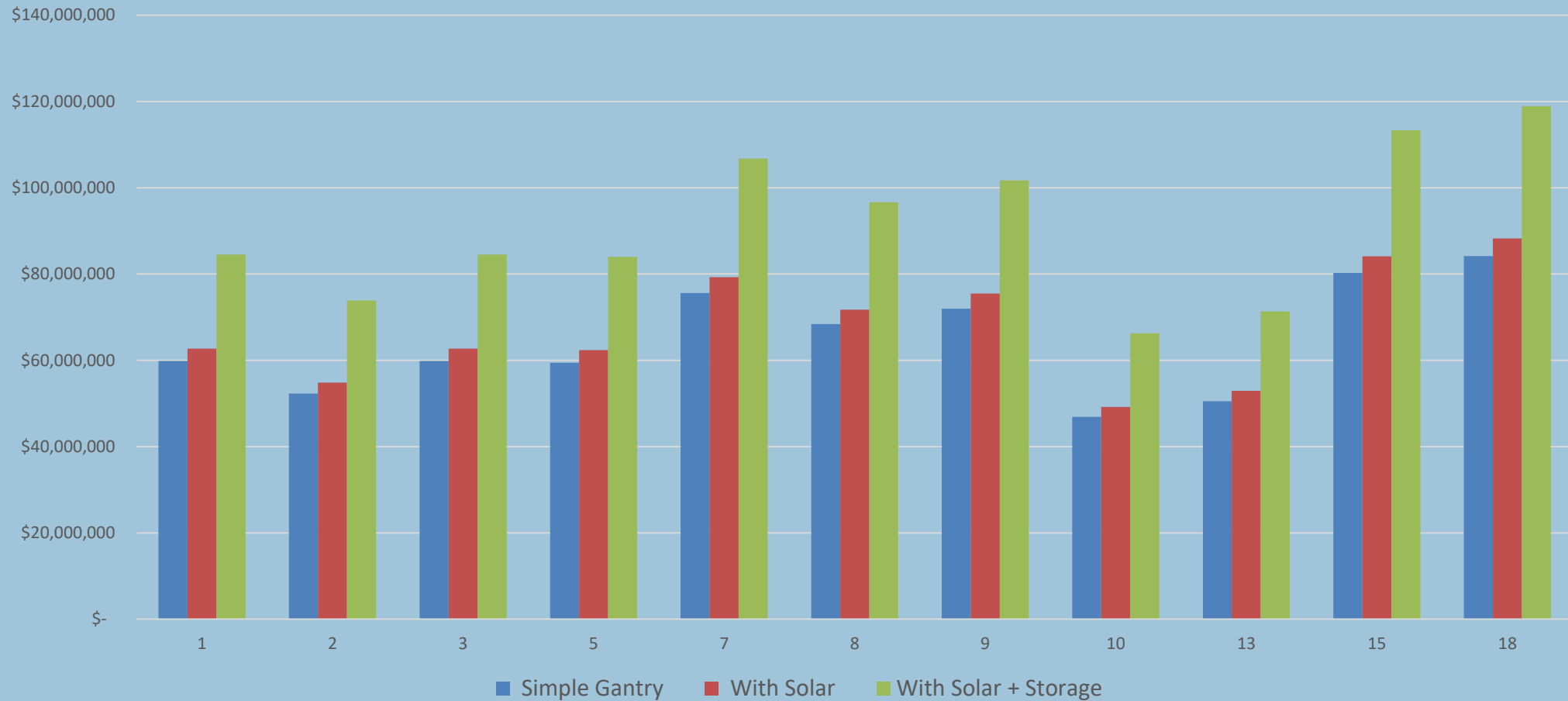


ZEB Master Plan - Conversion of Divisions (Phasing Schedule)

- Division overhead charging
 - Gantry is lower-cost design
 - Gantry optimizes space
 - Gantry with platform:
 - Saves space
 - Provides for equipment, solar and battery storage
 - More expensive



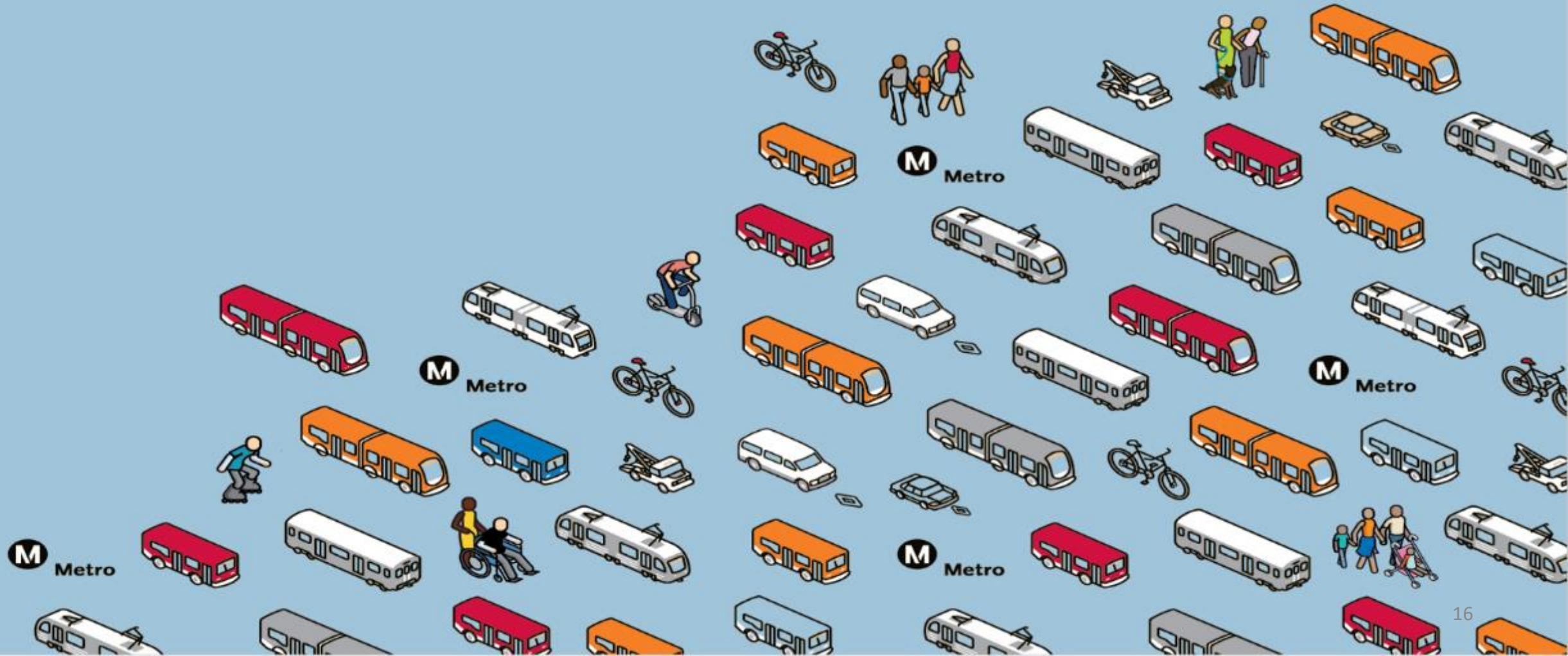
ZEB Master Plan - Conversion of Divisions (Cost)



- Simple Gantry Arrangement
 - ~\$50M - \$80M per Division
- Sophisticated with Solar and Battery Storage
 - ~\$70M - \$120M per Division



Thank you





Board Report

File #: 2019-0460, File Type: Plan

Agenda Number: 22.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE JULY 18, 2019

SUBJECT: NEXTGEN REGIONAL SERVICE CONCEPT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

CONSIDER:

- A. APPROVING the Regional Service Concept, which is the framework for restructuring Metro's bus routes and schedules for NextGen and includes:
1. Goals and objectives of the new bus network;
 2. Measures of success;
 3. Route and network design concepts based on public input and data analysis;
 4. Framework for balancing tradeoffs that consider Metro's Equity Platform; and
- B. FOLLOWING approval by all five Regional Service Councils, the Board shall then approve the final NextGen Service Plan.

ISSUE

In January 2018, Metro began the NextGen Bus Study aimed at reimagining the bus network to be more relevant, reflective of, and attractive to the diverse customer needs within Los Angeles County. This process is divided into four phases:

1. Conduct market research, travel demand analysis and existing service evaluation to identify areas of success, deficiency, and gaps within the network;
2. Establish a Regional Service Concept to guide the development of the NextGen Service Plan;
3. Develop the NextGen Service Plan, including routing, stop spacing, frequency, span of service, and coordination with municipal operators;
4. Implement the NextGen Service Plan through extensive engagement and public hearing process.

This report requests approval of a Regional Service Concept that defines the goals and objectives of the new bus network, measures of success, route and network design concepts based on public input and data analysis, and framework for balancing tradeoffs that consider Metro's Equity Platform.

DISCUSSION

Given the transforming landscape of transportation and travel demand within Los Angeles County, Metro embarked on an effort in January 2018 to reimagine the bus network to be more relevant, reflective of, and attractive to the diverse customer needs within Los Angeles County. More specifically, the NextGen Bus Study aims to increase transit use within the County over the next decade by retaining current customers and attracting them to ride more often, reclaiming past customers, and recruiting new customers. In addition, the new bus network will set the foundation for future growth from transportation investments provided through Measures R and M.

The NextGen Bus Study is divided into four phases, as follows:

Phase I: Research and Analysis - This phase consisted of understanding customers and what they want in a bus system. A significant effort went into understanding overall travel patterns within LA County using cell phone location data as well as an analysis of regional TAP use across 26 transit operators. A comprehensive evaluation of the existing bus network (Attachment A), broken down by routes and segments by time of day, was conducted to understand current successes as well as deficiencies and gaps in service. Significant public engagement was conducted with customers and residents with over 10 million touchpoints throughout the County via online engagement, print advertising, pop-up sessions, 260+ stakeholder and community meetings, on-board bus canvassing, and at 20 interactive public workshops in order to validate the market research, receive comments, and to gain valuable insight into route and area specific concerns and recommendations (Attachment B).

Phase II: Regional Service Concept - Based on the research and outreach conducted in Phase I, a Regional Service Concept is now being presented to the Board for approval. This report states the goals and objectives for the bus network, measures of success, route and network design concepts based on public input and data analysis, and framework for balancing tradeoffs in consideration of Metro's Equity Platform. This service concept provides policy guidance for the redesign of the bus routes and schedules as well as how success of the NextGen Bus Study should be measured.

Phase III: NextGen Service Plan - Once the Regional Service Concept has been approved by the Board, routing and schedules will be redesigned accordingly to develop the draft NextGen Service Plan. This plan will specify route and schedule changes as well as bus stop spacing and frequencies by time of day and day of week. Also, since the County's municipal transit operators account for over 30% of the region's transit service, a significant focus of the plan will include recommendations on how to coordinate with the municipal operators to provide seamless service for customers. This phase is expected to be completed by Fall 2019 when it will be presented to the Board.

Phase IV: Implementation -Implementation of the NextGen Service Plan is expected to be spread over three service changes starting in June 2020. As with any major service change, a Title VI equity analysis will be conducted to ensure the service plan is neither disparately impacting minorities, nor disproportionately impacting low-income populations. This analysis requires a formal public hearing process which takes four months from initiation to approval by the Board appointed Regional Service Councils. Upon approval by the Service Councils, three additional months are necessary to finalize

schedules and assignments to be presented to the bus operators for bidding, per terms of the SMART Collective Bargaining Agreement. Therefore, to begin implementation of the NextGen Service Plan in June 2020, the formal public hearing and approval process must start in November 2019, otherwise implementation will be delayed until December 2020, the next scheduled service change date. Metro bus riders will be informed of these changes utilizing the various communications tools including digital media, radio and print advertising, on-board information, and other media outlets.

As stated above, this report requests approval of a Regional Service Concept that defines the goals and objectives of the new bus network, measures of success, route and network design concepts based on public input and data analysis, and framework for balancing tradeoffs in consideration of Metro's Equity Platform.

Goals and Objectives

In 2018, the Board adopted Metro Vision 2028 as the agency's strategic plan. The plan outlines five goals to guide the development of transportation in LA County. The NextGen Bus Study addresses **Goal #1: Provide high quality mobility options that enable people to spend less time traveling.** The study also encompasses two sub-goals: 1) Target infrastructure and service investments towards those with the greatest mobility needs; and 2) Invest in a world class bus system that is reliable, convenient, safe, and attractive to more users for more trips.

In addition to the strategic plan, the Board adopted Motion 38.1 (June 2018), endorsing travel speed, service frequency, and system reliability as the highest priority service design objectives for the NextGen Bus Study. Finally, regardless of the level of resources expended on the bus network, optimizing system performance should always be an objective in network design to maximize benefit to the public.

These goals and objectives are driving the development of the NextGen Service Plan, including routing, stop spacing, frequency, span of service, and coordination with municipal operators. In addition, a set of performance measures have been defined below to ensure the bus network continues to evolve consistent with the goals and objectives defined by the Board.

Public Engagement

Throughout the Study, Metro conducted extensive public engagement to inform, engage, and solicit input from riders, residents, businesses, schools, community-based organizations, ADA groups, and faith communities throughout LA County to inform Metro's efforts to redesign Metro's Bus System. (See Attachment B)

Metro formed a NextGen Bus Study Working Group to help identify issues and concerns. The Working Group consists of more than 50 representatives of stakeholder groups including Metro Service Councils, community-based groups, faith communities, business associations, educational institutions, advocacy groups, and environmental organizations. Working Group members were tasked with providing input from the various constituencies they represent. This group has met six times to date and will continue to provide input and guidance throughout the Study.

This public engagement effort serves to integrate public comments into the Regional Service Concept that is being proposed in this report. The public comments are validating the market research conducted by the technical contractor and informing Metro staff on route specific recommendations that will be developing and presenting to the Board in Fall 2019 as part of the Draft Bus Service Plan.

The highlights of this countywide public engagement effort are outlined below:

- More than 13,000 people provided comments about Metro's bus system through questionnaires promoted online, administered on-board bus canvassing, and provided at many of the events noted below.
- More than 60% of participants reached were people of color representing multiple genders, age groups, zip codes, and income levels that make up the diversity of LA County.
- Over 260 community events and stakeholder briefings.
- Coordination with local Municipal Bus Operators.
- Bi-monthly updates to the five Metro Service Councils
- Bus rider engagement through 300,000 take-one brochures aboard the bus and rail system.
- More than 9 million digital engagement touchpoints
- Over 1.4 million in circulation through earned media and paid print advertising in ten different languages
- Two Telephone Town Halls were conducted with more than 3,600 participants
- 20 NextGen Public Workshops from January-March 2019

A concerted effort was made to ensure that the public engagement cumulatively reflects input that is reflective of the diversity of LA County's population.

Metro's Equity Platform in Action

The most recent NextGen Working Group meeting, held May 29, 2019, focused on how the Equity Platform has been and will continue to be reflected within the bus network redesign. This meeting was titled *Metro's Equity Platform in Action Through the NextGen Bus Study*. At this meeting Metro shared how the Four Pillars of Metro's Equity Platform have been implemented at each step of the NextGen Bus Study for both the technical and communications efforts. A summary of this meeting can be found in Attachment C.

The framework for equity begins with Title VI of the Civil Rights Act of 1964 which protects minority and low-income communities from disparate and disproportionate negative impacts as a result of major transit service changes. Metro defines major service changes as any change to a route or schedule that results in a 25% change in route miles, revenue miles, or revenue hours cumulatively over three consecutive years. Once triggered, a Title VI/Environmental Justice evaluation must be presented to the Board for consideration and approval to demonstrate that it would be more of a burden to these communities if alternative service changes are implemented.

Metro's Equity Platform builds upon Title VI in two distinct ways. First, it goes beyond ethnicity and income to determine communities with the greatest mobility needs. Through market research,

surveys, and public input, other groups most reliant on transit include non-English speaking new immigrants, youth and seniors, persons without access to an automobile either by choice or necessity, persons with disabilities, and women who tend to make more transit trips than men. In addition, the NextGen Working Group concluded that transit is important to everyone, but in different ways specific to each community. For example, communities more reliant on transit need service throughout the day and week for all trip purposes, while communities who have more mobility options, may only need transit for their commute or certain discretionary trips.

Second, NextGen Bus Study aims to go above and beyond Title VI, to not only protect against negative impacts, but to further improve service for communities with the greatest mobility needs. To do this, the Four Pillars of the Equity Platform have been integrated into the NextGen Bus Study planning and public engagement process.

- I. Define and Measure - Use Title VI as a baseline for identifying communities with the greatest needs, and supplement those with market research to identify the segments of population and trips with the highest propensity for transit use. Evaluate bus network changes based on the customer focused performance metrics established within this report with particular focus on communities with the greatest mobility needs as identified above.
- II. Listen & Learn -The technical work of the NextGen Bus Study identified important information about Metro's current and potential customers. This data was validated by the robust countywide public engagement effort, including engaging customers onboard buses, outreach sessions at community events, stakeholder briefings, interactive public workshops, digital engagement and print advertising. Comments received will be incorporated into the systemwide service design as well as individual route changes.
- III. Focus & Deliver - Service design concepts (discussed below) have been established to address the recurring themes identified from the public outreach and market research, including faster and more frequent service, better reliability and accessibility to key destinations, better connectivity particularly with the municipal operators, and improved perception of security on board buses and at bus stops. These concepts, described below, will be used to redesign the routes and schedules.

In addition, a Transit Propensity Index score (Attachment D) has been developed and assigned to every Census Tract in Los Angeles County. This index score considers the various market segments likelihood to use transit, the transit orientation of the environment being served, and the travel demand within the area. Areas with high scores should be prioritized for high quality transit service.

Lastly, other customer experience enhancements such as improved security, accurate real time arrival information, cleanliness, and improved first/last mile service are critical to attracting customers to use transit.

- IV. Train & Grow - The Board adopted Transit Service Policy will be updated to reflect the Regional Service Concept as adopted by the Board, including the goals and objectives of the bus network, measures of success, route and network design concepts based on public input

and data analysis, and framework for balancing tradeoffs in consideration of Metro's Equity Platform. In addition, an annual monitoring program will be established to track the progress of achievement towards the goals and objectives, and to inform on necessary adjustments.

Network Development Process

There are three key elements that are taken into consideration during the network development process to identify when and where transit can be successful.

- **Transit Propensity** - Areas where the propensity to use transit is the greatest embody three main characteristics. First, there is a significantly large population of transit market segments, including people who rely on transit for most of their travel, commuters and students who use transit for work and school trips, and discretionary riders who choose transit for some or all their trips. Second, is the intensity of travel demand to and from areas based on population and employment densities, retail and entertainment, colleges and universities, and other trip generators. For NextGen, cell phone location data is also being used to identify areas of greatest travel intensity. Finally, a pedestrian oriented street environment is also critical, including safe and well lighted pathways, sidewalks and curb-cuts, grid street network, and level topography. A full description of the Transit Propensity Index score is in Attachment D.
- **Existing Service Performance** - It is important to identify the most productive segments of the existing bus network which articulates current transit demand. These corridors and routes should be optimized through the network development process, and lessons learned should be applied to other areas with similar demand and service characteristics. Through the NextGen Bus Study process, the entire Metro bus network has been dissected into segments by time of day and day of week, and various performance metrics have been calculated for each segment to create a 360-degree view of system performance. Attachment E provides route and segment level analysis based on some of the key performance metrics.
- **Service Environment** - A transit-oriented service environment is also critical to the success of transit, including the pedestrian orientation of the streets and land use, barriers to other modes such as limited and costly parking supply, and transit supportive infrastructure including bus only lanes and transit priorities.

Once we understand where and when transit is and can be successful, the appropriate service design concepts must be matched with the specific needs of each market segment. Service design concepts have been developed to address the recurring themes identified through public engagement and market research, including:

- Faster and more frequent service;
- Better reliability and accessibility to key destinations;
- Better connectivity particularly with the municipal operators; and
- Improved perception of safety on board buses and at bus stops.

Service design concepts that will guide the route and schedule planning are summarized in Table 1

below indicating which theme each concept addresses. A detailed description of the concepts is presented in Attachment F.

**Table 1
Service Design Concepts**

	Faster service	Frequent service throughout the day	More reliable service	Better network connectivity	Accessibility to key destinations	Improved security
Routing to Reflect Current Travel Patterns and Transit Propensity				X	X	X
Standardize Frequencies by Service Tiers	X	X				
Subarea Transit Hubs				X		X
Shorter Route Lengths			X			
Hybrid Local/Rapid Stop Spacing	X		X			
Municipal Operator Coordination				X	X	
Microtransit and Other On-Demand		X			X	
Transit Supportive Infrastructure	X		X			X

Measuring Success

Providing high quality mobility options that enable people to spend less time traveling on the transit network requires that we are available when and where our customers want to travel, we are competitive enough to have them try us over other options, and we are attractive enough to ensure they return for the same trip and ideally for more trips. Therefore, our recommended measures of success are aimed at evaluating the bus network within these three stages of Find, Try, and Rely. These customer focused measures help to balance our traditional metrics of productivity and efficiency (e.g. ridership, boardings per hour, subsidy per boarding).

Several of these measures (italicized below) will be used to evaluate the network through the lens of equity.

Find - How well do people understand how effectively transit can serve their needs? Is the system easy to understand & use? Proposed measures include:

- Services and information is Readily Available
 - Percentage of trip ends within ¼ mile of transit stop
 - Trip planner, app, and website usage rates
 - *Percent of public considering transit (survey-based)*
- The Bus System is Easy to Understand and Use
 - Percentage of out of direction travel
 - Percentage of route miles with all-day frequent service (<15 min headways)
 - *Percent of public understand how to use system (survey-based)*

Try - How can we encourage customers to try the regional transit system? (Metro and Municipal Bus Operators) Proposed measures include:

- Bus Goes Where/When Customers Want
 - *Percentage of trips compatible with transit by time of day and day of week*
 - *Number of jobs and activity centers accessible within a 15 minute and 30 minute transit ride*
 - Number of unique transit users
- Bus system is Competitive
 - *Door-to-door travel times*
 - *Competitiveness of transit time to drive time*
 - System-wide boardings
- Coverage is Adequate
 - *Population within ¼-mile of transit stops by frequency of service*
- Transit Journeys are Simple
 - Average number of transfers
 - Percent of trips that are one-seat rides

Rely - How can we provide services that customers can rely on for their travel needs? Proposed measures include:

- Bus System is Effective and Productive

- *Competitive transit paths for short, evening, midday, and weekend trips*
- Number of frequent riders
- Boardings by time of day and day of week
- Boardings per revenue hours and miles
- Cost per passenger mile

- Buses are Reliable
 - Headway regularity on frequent routes
 - On-time performance
 - Real time arrival accuracy

- Customers are Satisfied
 - Rides per week for frequent and infrequent users
 - *Percentage of customers satisfied with Metro services (survey-based)*

FINANCIAL IMPACT

Adoption of the NextGen Regional Service Concept would have positive impacts to the agency by establishing policy guidance for redesigning the Metro bus network based on robust outreach and analytical rigor. In addition, the Regional Service Concept establishes measures of success based on the user's perspective to ensure that bus service better matches their needs.

Impact to Budget

The NextGen Bus Study is currently funded in the FY20 Budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports strategic plan goal #1: Provide high quality mobility options that enable people to spend less time traveling.

NEXT STEPS

With approval of the NextGen Regional Service Concepts, staff will continue to redesign the Metro bus network and develop the NextGen Service Plan for NextGen Working Group, Board, Service Council, and the public's consideration. This plan is expected to be completed with new lines and schedules by Fall 2019. Staff will continue to coordinate with municipal operators throughout the plan development and will conduct significant stakeholder and public engagement prior to the public hearing process for implementation starting June 2020.

ATTACHMENTS

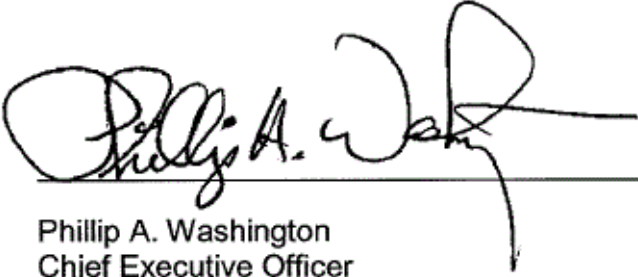
Attachment A - Existing Service Evaluation

Attachment B - NextGen Public Engagement Summary

Attachment C - NextGen Working Group Meeting Summary - Equity Platform In Action
Attachment D - Transit Propensity Score
Attachment E - Route and Segment Performance
Attachment F - Service Design Concepts

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Reviewed by: James T. Gallagher, COO, (213) 418-3108



Phillip A. Washington
Chief Executive Officer

Attachment A
Existing Service Evaluation

Attached is a representative set of evaluation reports for Line 2. All line reports for the system can be found at: <https://www.metro.net/projects/nextgen/> . Click "Data and Analysis" to access line reports as well as other data sources.

Line 2

Sunset Blvd

Local

NEXTGEN Bus Study



LINE PERFORMANCE

	Weekday	Saturday	Sunday												
Hours of Operation 	24 hour	24 hour	24 hour												
Peak Frequency (in minutes) 	5-15	13-15	17-20												
Daily Boardings <p>Number of daily passenger boardings</p> <table border="1"> <thead> <tr> <th></th> <th>System Averages</th> <th>Tier Averages</th> </tr> </thead> <tbody> <tr> <td>Weekday</td> <td>5,939</td> <td>6,481</td> </tr> <tr> <td>Saturday</td> <td>5,046</td> <td>5,402</td> </tr> <tr> <td>Sunday</td> <td>4,079</td> <td>4,326</td> </tr> </tbody> </table>		System Averages	Tier Averages	Weekday	5,939	6,481	Saturday	5,046	5,402	Sunday	4,079	4,326	12,979 18 System Rank	9,793 16 System Rank	7,239 22 System Rank
	System Averages	Tier Averages													
Weekday	5,939	6,481													
Saturday	5,046	5,402													
Sunday	4,079	4,326													
Productivity <p>Passengers per revenue hour</p> <table border="1"> <thead> <tr> <th></th> <th>System Averages</th> <th>Tier Averages</th> </tr> </thead> <tbody> <tr> <td>Weekday</td> <td>37.2</td> <td>38.1</td> </tr> <tr> <td>Saturday</td> <td>34.6</td> <td>35.9</td> </tr> <tr> <td>Sunday</td> <td>32.7</td> <td>34.0</td> </tr> </tbody> </table>		System Averages	Tier Averages	Weekday	37.2	38.1	Saturday	34.6	35.9	Sunday	32.7	34.0	37.9 Below Average	33.8 Below Average	33.9 Below Average
	System Averages	Tier Averages													
Weekday	37.2	38.1													
Saturday	34.6	35.9													
Sunday	32.7	34.0													
Farebox Recovery <p>Percent of operating cost recovered through fares</p> <table border="1"> <thead> <tr> <th></th> <th>System Averages</th> <th>Tier Averages</th> </tr> </thead> <tbody> <tr> <td>Weekday</td> <td>21%</td> <td>22%</td> </tr> <tr> <td>Saturday</td> <td>20%</td> <td>20%</td> </tr> <tr> <td>Sunday</td> <td>18%</td> <td>19%</td> </tr> </tbody> </table>		System Averages	Tier Averages	Weekday	21%	22%	Saturday	20%	20%	Sunday	18%	19%	18% Below Average	16% Below Average	16% Below Average
	System Averages	Tier Averages													
Weekday	21%	22%													
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Sunday	18%	19%													
Subsidy per Passenger Boarding <p>Difference of operating cost and fare revenue per passenger</p> <table border="1"> <thead> <tr> <th></th> <th>System Averages</th> <th>Tier Averages</th> </tr> </thead> <tbody> <tr> <td>Weekday</td> <td>\$2.98</td> <td>\$2.84</td> </tr> <tr> <td>Saturday</td> <td>\$3.23</td> <td>\$3.10</td> </tr> <tr> <td>Sunday</td> <td>\$3.50</td> <td>\$3.36</td> </tr> </tbody> </table>		System Averages	Tier Averages	Weekday	\$2.98	\$2.84	Saturday	\$3.23	\$3.10	Sunday	\$3.50	\$3.36	\$3.51 Below Average	\$4.12 Below Average	\$4.14 Below Average
	System Averages	Tier Averages													
Weekday	\$2.98	\$2.84													
Saturday	\$3.23	\$3.10													
Sunday	\$3.50	\$3.36													

Line 2

Sunset Blvd

Weekday

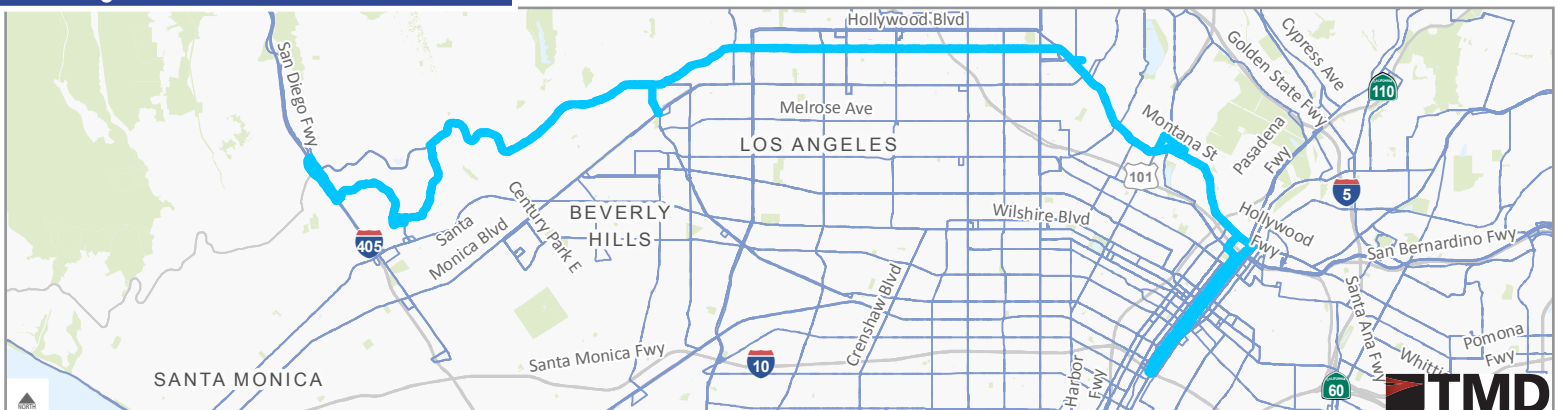
NEXTGEN Bus Study



LINE STATISTICS by Time Period and Segment

Segments	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL
PASSENGER BOARDINGS							TRIPS							
Early AM	112	95	261	93	52	49	662	7	10	11	12	11	10	12
AM Peak	153	402	1,501	485	224	133	2,898	10	39	41	41	31	15	41
Midday	185	513	1,882	588	296	325	3,789	16	39	45	45	34	23	45
PM Peak	182	871	1,861	555	246	387	4,102	11	49	49	49	34	21	49
Evening	73	315	579	171	99	172	1,409	11	28	31	35	32	26	35
Owl	2	23	22	17	10	45	119	2	4	8	11	11	11	11
TOTAL	707	2,219	6,106	1,909	927	1,111	12,979	57	169	185	193	153	106	193
REVENUE HOURS							PASSENGER MILES							
Early AM	4.9	4.2	3.7	2.4	1.3	2.3	18.8	1,524	1,307	896	326	251	154	4,458
AM Peak	7.8	24	19.3	11.9	3.2	5.1	71.3	955	3,980	3,650	1,362	597	380	10,923
Midday	11.9	25.4	26.6	14.8	4.6	9.3	92.5	1,801	4,115	4,440	2,071	973	658	14,058
PM Peak	10.1	33.3	26.7	17.7	4.5	8.6	101	1,582	4,863	5,098	1,859	861	580	14,843
Evening	6	14.2	12.7	8.4	3.6	7.1	52	666	2,293	2,057	855	492	385	6,747
Owl	0.3	1.2	1.4	1.5	1.1	1.7	7.2	1	83	138	168	125	86	601
TOTAL	41.1	102.2	90.5	56.7	18.2	34	342.8	6,528	16,640	16,280	6,640	3,298	2,242	51,629
REVENUE MILES							OPERATING COST							
Early AM	79.2	59.5	41.4	28.9	18.8	21.4	249.3	\$980	\$784	\$630	\$422	\$243	\$363	\$3,423
AM Peak	107.4	272.3	170.6	104.9	33.2	34.2	722.6	\$1,446	\$4,096	\$3,015	\$1,855	\$528	\$727	\$11,666
Midday	169.3	274.9	189.1	113.7	46.2	60.1	853.4	\$2,230	\$4,261	\$3,882	\$2,204	\$745	\$1,315	\$14,638
PM Peak	121.5	320.2	202.7	125.3	43	54.8	867.6	\$1,770	\$5,346	\$3,969	\$2,581	\$718	\$1,216	\$15,600
Evening	99	180	115.8	85.8	50.1	65.1	595.9	\$1,208	\$2,533	\$2,006	\$1,374	\$672	\$1,125	\$8,918
Owl	4	17.9	16.6	25.9	20.3	22.2	106.8	\$59	\$227	\$238	\$312	\$236	\$307	\$1,380
TOTAL	580.5	1,124.9	736.1	484.5	211.7	257.9	3,395.60	\$7,693	\$17,248	\$13,739	\$8,748	\$3,143	\$5,054	\$55,625

Line Alignment



Line 2

Sunset Blvd

Weekday

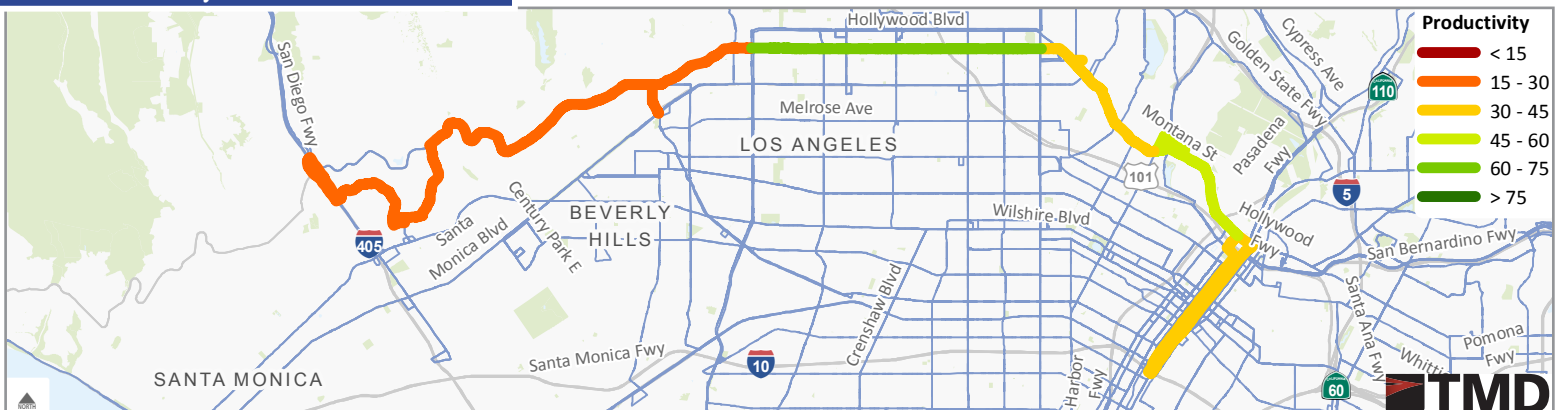
NEXTGEN Bus Study



LINE PERFORMANCE by Time Period and Segment

Segments	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL
PASSENGER BOARDINGS PER REVENUE HOUR							PASSENGERS MILES PER REVENUE HOUR							
Early AM	22.7	22.8	70.1	38.4	41	21.5	35.2	308.3	313.3	240.8	134.6	197.5	67.6	237
AM Peak	19.6	16.8	77.6	40.7	70.1	26.3	40.6	122.1	165.9	188.7	114.3	186.8	75.1	153.2
Midday	15.6	20.2	70.6	39.8	65	35.1	41	151.9	161.9	166.6	140.2	213.6	71.1	152
PM Peak	17.9	26.2	69.7	31.3	55	45	40.6	156	146	190.9	104.8	192.4	67.4	147
Evening	12.2	22.2	45.5	20.4	27.3	24.1	27.1	110.9	161.8	161.5	102.2	135.4	54	129.6
Owl	5.9	19.6	16.3	11.1	8.9	26.5	16.5	1.5	70.7	102.2	109.7	111.6	50.2	83.2
TOTAL	17.2	21.7	67.5	33.6	50.8	32.7	37.9	158.8	162.8	179.9	117	180.7	65.9	150.6
PASSENGER BOARDINGS PER REVENUE MILE							SUBSIDY PER BOARDING							
Early AM	1.4	1.6	6.3	3.2	2.8	2.3	2.7	(\$7.97)	(\$7.48)	(\$1.64)	(\$3.76)	(\$3.89)	(\$6.63)	(\$4.39)
AM Peak	1.4	1.5	8.8	4.6	6.8	3.9	4	(\$8.67)	(\$9.41)	(\$1.23)	(\$3.05)	(\$1.58)	(\$4.68)	(\$3.25)
Midday	1.1	1.9	10	5.2	6.4	5.4	4.4	(\$11.27)	(\$7.53)	(\$1.28)	(\$2.97)	(\$1.74)	(\$3.27)	(\$3.08)
PM Peak	1.5	2.7	9.2	4.4	5.7	7.1	4.7	(\$8.95)	(\$5.36)	(\$1.35)	(\$3.87)	(\$2.14)	(\$2.36)	(\$3.02)
Evening	0.7	1.7	5	2	2	2.6	2.4	(\$15.77)	(\$7.26)	(\$2.68)	(\$7.26)	(\$6.01)	(\$5.76)	(\$5.55)
Owl	0.5	1.3	1.3	0.7	0.5	2	1.1	(\$28.74)	(\$9.10)	(\$10.04)	(\$17.58)	(\$22.86)	(\$6.05)	\$10.82)
TOTAL	1.2	2	8.3	3.9	4.4	4.3	3.8	(\$10.10)	(\$6.99)	(\$1.47)	(\$3.80)	(\$2.61)	(\$3.77)	(\$3.51)
PASSENGER BOARDINGS PER TRIP							FAREBOX RECOVERY (%)							
Early AM	16	9.5	23.7	7.8	4.7	4.9	55.2	8.9	9.4	32.3	17.2	16.7	10.5	15.1
AM Peak	15.3	10.3	36.6	11.8	7.2	8.9	70.7	8.3	7.7	38.8	20.4	33.1	14.3	19.4
Midday	11.6	13.2	41.8	13.1	8.7	14.1	84.2	6.5	9.4	37.8	20.8	31	19.3	20.2
PM Peak	16.5	17.8	38	11.3	7.2	18.4	83.7	8	12.7	36.6	16.8	26.7	24.8	20.5
Evening	6.6	11.3	18.7	4.9	3.1	6.6	40.3	4.7	9.7	22.5	9.7	11.5	11.9	12.3
Owl	1	5.8	2.8	1.5	0.9	4.1	10.8	2.6	7.9	7.2	4.2	3.3	11.4	6.7
TOTAL	12.4	13.1	33	9.9	6.1	10.5	67.2	7.2	10	34.7	17	23	17.1	18.2

Line Productivity



Line 2

Sunset Blvd

Saturday

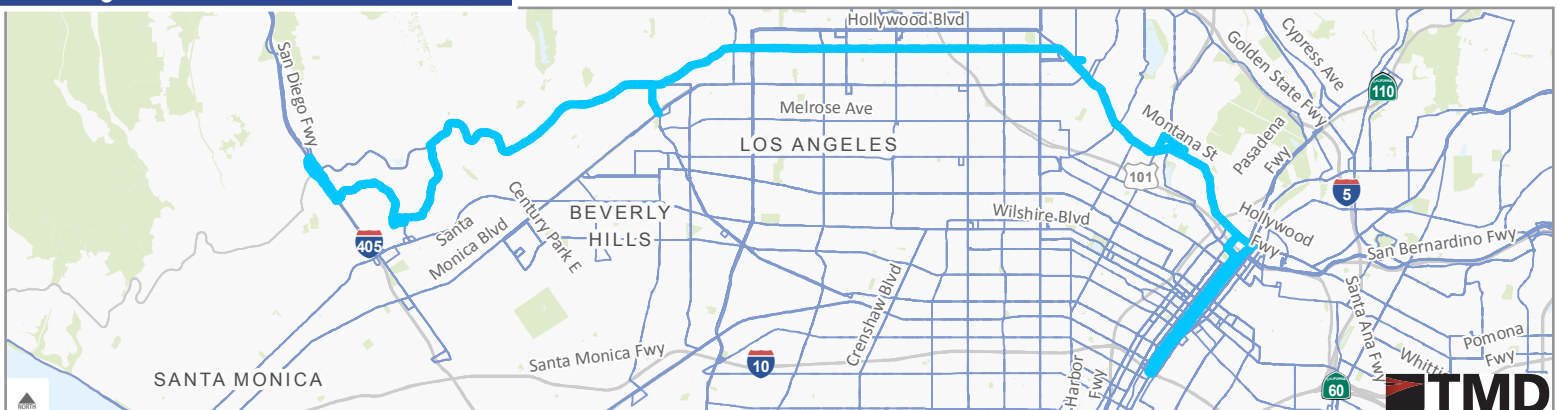
NEXTGEN Bus Study



LINE STATISTICS by Time Period and Segment

Segments	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL
PASSENGER BOARDINGS							TRIPS							
Early AM	22	30	120	32	29	36	269	3	6	7	8	8	8	8
AM Peak	121	259	1,013	279	134	176	1,982	12	31	31	31	27	21	31
Midday	135	405	1,454	460	235	299	2,988	14	41	41	41	34	28	41
PM Peak	169	586	1,379	435	208	256	3,033	13	37	37	37	31	24	37
Evening	61	227	610	177	116	205	1,396	13	25	28	32	32	31	32
Owl	2	28	28	23	14	30	125	2	4	8	11	11	11	11
TOTAL	510	1,535	4,604	1,406	736	1,002	9,793	57	144	152	160	143	123	160
REVENUE HOURS							PASSENGER MILES							
Early AM	1.8	2.3	2.2	1.5	0.9	1.8	10.6	302	462	452	210	158	135	1,720
AM Peak	7.7	16.1	13.8	8	3.1	7.1	55.8	1,537	2,986	2,986	989	520	363	9,382
Midday	9.9	25	22.9	13.9	4.7	10.8	87.2	1,280	3,472	3,682	1,608	867	594	11,503
PM Peak	9.1	22.9	20.7	11.8	4	8.9	77.5	1,578	3,845	4,123	1,540	779	536	12,402
Evening	7.4	12.8	11.2	7.2	4.2	8.9	51.7	631	1,929	1,980	859	572	429	6,399
Owl	0.3	1.2	1.4	1.5	1.1	1.7	7.3	6	92	152	134	92	61	536
TOTAL	36.2	80.5	72.2	43.9	18.1	39.2	290	5,334	12,785	13,375	5,341	2,990	2,117	41,941
REVENUE MILES							OPERATING COST							
Early AM	31.2	36.1	24.2	18.4	14.5	18.2	142.6	\$369	\$453	\$374	\$262	\$182	\$298	\$1,939
AM Peak	124	213.4	125.3	74.9	39.8	53.4	630.8	\$1,533	\$2,934	\$2,169	\$1,275	\$557	\$1,052	\$9,519
Midday	146.9	282.6	165.7	98.7	52.6	71.5	817.9	\$1,891	\$4,264	\$3,359	\$2,027	\$798	\$1,540	\$13,879
PM Peak	136.8	254.4	149.5	89.6	45.7	61.3	737.2	\$1,751	\$3,883	\$3,036	\$1,751	\$685	\$1,284	\$12,390
Evening	122.3	165.2	101	73.9	56.4	76.4	595.1	\$1,487	\$2,307	\$1,754	\$1,181	\$772	\$1,373	\$8,873
Owl	3.9	17.5	16.2	25.3	19.9	21.6	104.3	\$58	\$229	\$236	\$308	\$233	\$304	\$1,369
TOTAL	565.1	969.1	581.9	380.8	228.7	302.3	3,027.90	\$7,089	\$14,070	\$10,927	\$6,804	\$3,228	\$5,851	\$47,969

Line Alignment



Line 2

Sunset Blvd

Saturday

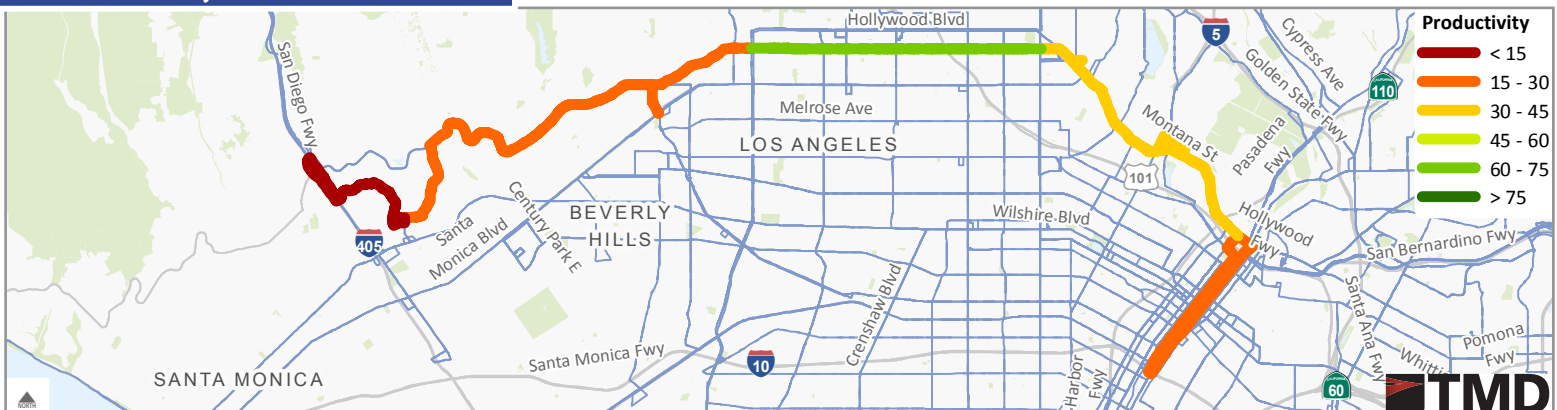
NEXTGEN Bus Study



LINE PERFORMANCE by Time Period and Segment

Segments	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL
PASSENGER BOARDINGS PER REVENUE HOUR							PASSENGERS MILES PER REVENUE HOUR							
Early AM	12.3	13	53.9	21.6	31.1	19.5	25.4	168.9	200	203.2	142.3	169.9	73.4	162.6
AM Peak	15.7	16.1	73.5	34.8	43.1	24.8	35.5	199.2	185.1	216.8	123.3	167.5	51.2	168
Midday	13.7	16.2	63.4	33	50	27.8	34.3	129.8	138.8	160.5	115.6	184.3	55.1	131.9
PM Peak	18.6	25.5	66.5	36.9	51.9	28.8	39.2	173.5	167.6	198.7	130.8	194.5	60.3	160.1
Evening	8.3	17.7	54.7	24.7	27.4	23.1	27	85.6	150.2	177.6	119.7	135.3	48.2	123.9
Owl	5.9	23.1	20.7	15	12.5	17.7	17.2	17.4	75.8	112.1	87.2	82.3	35.7	73.9
TOTAL	14.1	19.1	63.8	32	40.7	25.6	33.8	147.5	158.9	185.3	121.6	165.2	54	144.6
PASSENGER BOARDINGS PER REVENUE MILE							SUBSIDY PER BOARDING							
Early AM	0.7	0.8	4.9	1.7	2	2	1.9	(\$16.00)	(\$14.32)	(\$2.34)	(\$7.41)	(\$5.50)	(\$7.51)	(\$6.43)
AM Peak	1	1.2	8.1	3.7	3.4	3.3	3.1	(\$11.89)	(\$10.55)	(\$1.36)	(\$3.79)	(\$3.38)	(\$5.19)	(\$4.02)
Midday	0.9	1.4	8.8	4.7	4.5	4.2	3.7	(\$13.23)	(\$9.75)	(\$1.53)	(\$3.63)	(\$2.62)	(\$4.37)	(\$3.86)
PM Peak	1.2	2.3	9.2	4.9	4.6	4.2	4.1	(\$9.58)	(\$5.85)	(\$1.42)	(\$3.25)	(\$2.51)	(\$4.23)	(\$3.31)
Evening	0.5	1.4	6	2.4	2.1	2.7	2.3	(\$23.59)	(\$9.39)	(\$2.09)	(\$5.89)	(\$5.87)	(\$5.92)	(\$5.58)
Owl	0.5	1.6	1.7	0.9	0.7	1.4	1.2	(\$28.44)	(\$7.39)	(\$7.64)	(\$12.63)	(\$15.90)	(\$9.36)	\$10.17
TOTAL	0.9	1.6	7.9	3.7	3.2	3.3	3.2	(\$13.12)	(\$8.39)	(\$1.59)	(\$4.06)	(\$3.61)	(\$5.06)	(\$4.12)
PASSENGER BOARDINGS PER TRIP							FAREBOX RECOVERY (%)							
Early AM	7.3	5	17.1	4	3.6	4.5	33.6	4.6	5.2	25	9.5	12.4	9.4	10.8
AM Peak	10.1	8.4	32.7	9	5	8.4	63.9	6.2	6.9	36.4	17.1	18.7	13.1	16.2
Midday	9.6	9.9	35.5	11.2	6.9	10.7	72.9	5.6	7.4	33.8	17.7	23	15.1	16.8
PM Peak	13	15.8	37.3	11.8	6.7	10.7	82	7.5	11.8	35.4	19.4	23.7	15.6	19.1
Evening	4.7	9.1	21.8	5.5	3.6	6.6	43.6	3.2	7.7	27.1	11.7	11.7	11.6	12.3
Owl	1	7	3.5	2.1	1.3	2.7	11.4	2.7	9.6	9.3	5.8	4.7	7.7	7.1
TOTAL	8.9	10.7	30.3	8.8	5.1	8.1	61.2	5.6	8.5	32.9	16.1	17.8	13.4	15.9

Line Productivity



Line 2

Sunset Blvd

Sunday

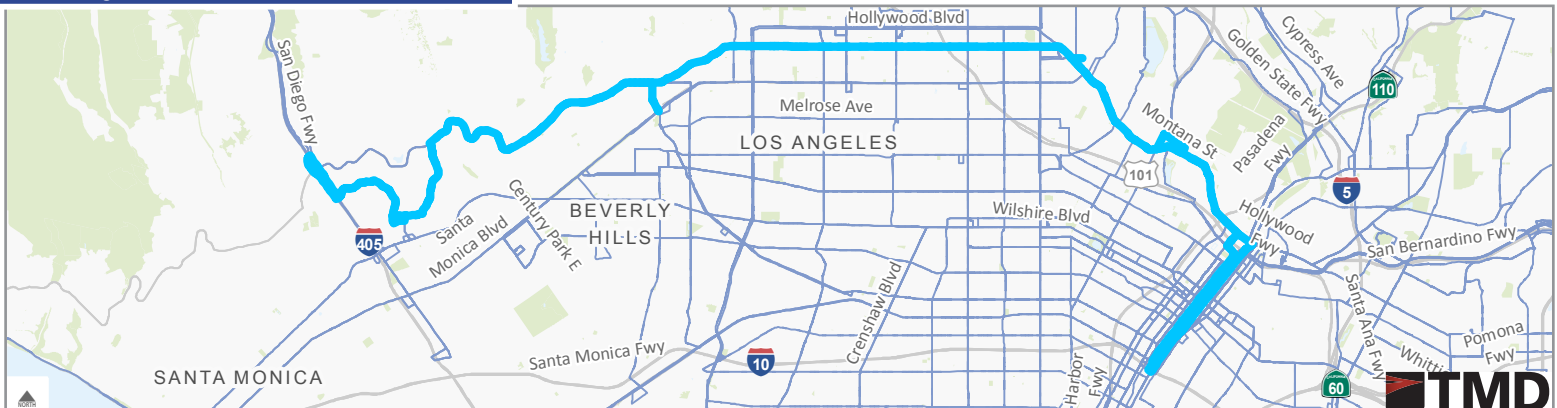
NEXTGEN Bus Study



LINE STATISTICS by Time Period and Segment

Segments	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL
PASSENGER BOARDINGS							TRIPS							
Early AM	5	20	68	14	13	22	142	2	3	4	5	5	5	5
AM Peak	71	173	632	144	79	64	1,163	9	18	18	18	17	12	18
Midday	107	269	1,291	339	181	176	2,363	12	30	32	32	24	18	32
PM Peak	91	404	1,224	330	158	197	2,404	9	27	31	31	28	22	31
Evening	66	182	430	136	78	166	1,058	11	22	25	29	29	29	29
Owl	1	18	21	15	11	43	109	2	4	8	11	11	11	11
TOTAL	341	1,066	3,666	978	520	668	7,239	45	104	118	126	114	97	126
REVENUE HOURS							PASSENGER MILES							
Early AM	1.1	1.4	1.1	0.9	0.6	1	6.1	135	234	259	119	88	68	903
AM Peak	6	8.4	8.1	4.5	1.8	3.9	32.7	894	1,697	1,877	498	256	187	5,411
Midday	8.5	16.2	18	10.3	3.3	6.6	62.9	1,307	2,662	3,045	1,191	526	339	9,069
PM Peak	6.1	15.2	17.8	9.5	3.8	7.5	59.9	927	2,797	3,237	1,206	631	431	9,230
Evening	6	10.9	9.9	6.2	3.9	7.8	44.7	622	1,341	1,477	683	469	363	4,953
Owl	0.3	1.2	1.3	1.5	1.1	1.7	7.2	4	57	102	170	130	87	550
TOTAL	28	53.3	56.2	32.9	14.5	28.5	213.5	3,890	8,788	9,997	3,867	2,100	1,475	30,115
REVENUE MILES							OPERATING COST							
Early AM	20.7	20.7	12.1	11.5	9	10.7	84.7	\$241	\$262	\$188	\$158	\$111	\$171	\$1,131
AM Peak	95.4	118.5	72.7	43.7	23.3	30.3	384	\$1,183	\$1,575	\$1,271	\$725	\$326	\$581	\$5,662
Midday	124	201.4	129.4	78.4	34.4	46	613.6	\$1,611	\$2,871	\$2,631	\$1,533	\$545	\$954	\$10,145
PM Peak	92.8	185.7	128	74.5	41.8	55.7	578.6	\$1,183	\$2,674	\$2,600	\$1,424	\$641	\$1,109	\$9,631
Evening	96.7	144.6	88.9	66.6	52.4	70.6	519.9	\$1,193	\$1,985	\$1,549	\$1,039	\$714	\$1,230	\$7,710
Owl	3.9	17.5	16.2	25.3	19.9	21.6	104.3	\$59	\$225	\$234	\$309	\$234	\$305	\$1,367
TOTAL	433.6	688.4	447.3	300	180.8	235	2,285.10	\$5,469	\$9,592	\$8,473	\$5,188	\$2,572	\$4,350	\$35,646

Line Alignment



Line 2

Sunset Blvd

Sunday

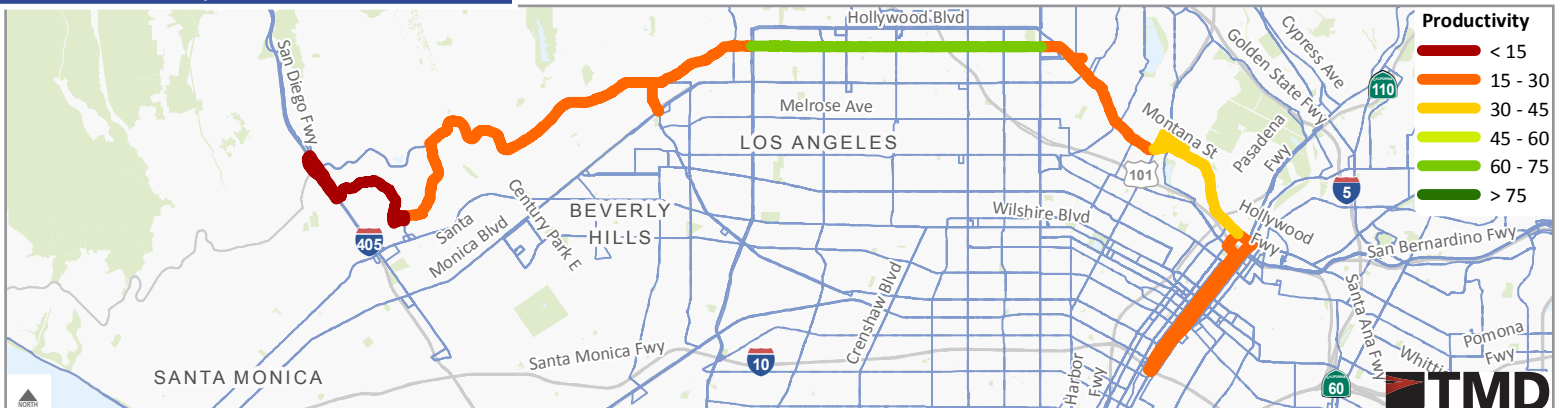
NEXTGEN Bus Study



LINE PERFORMANCE by Time Period and Segment

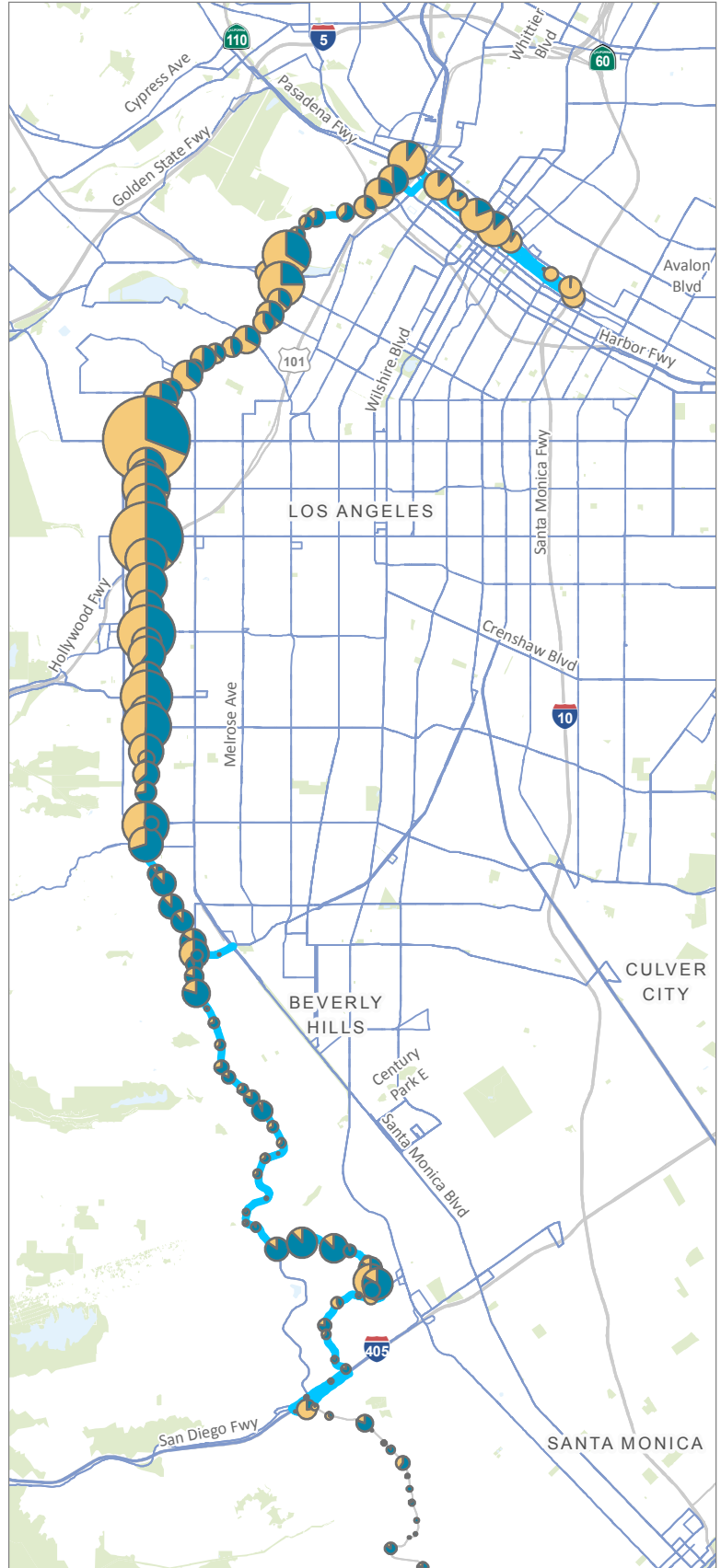
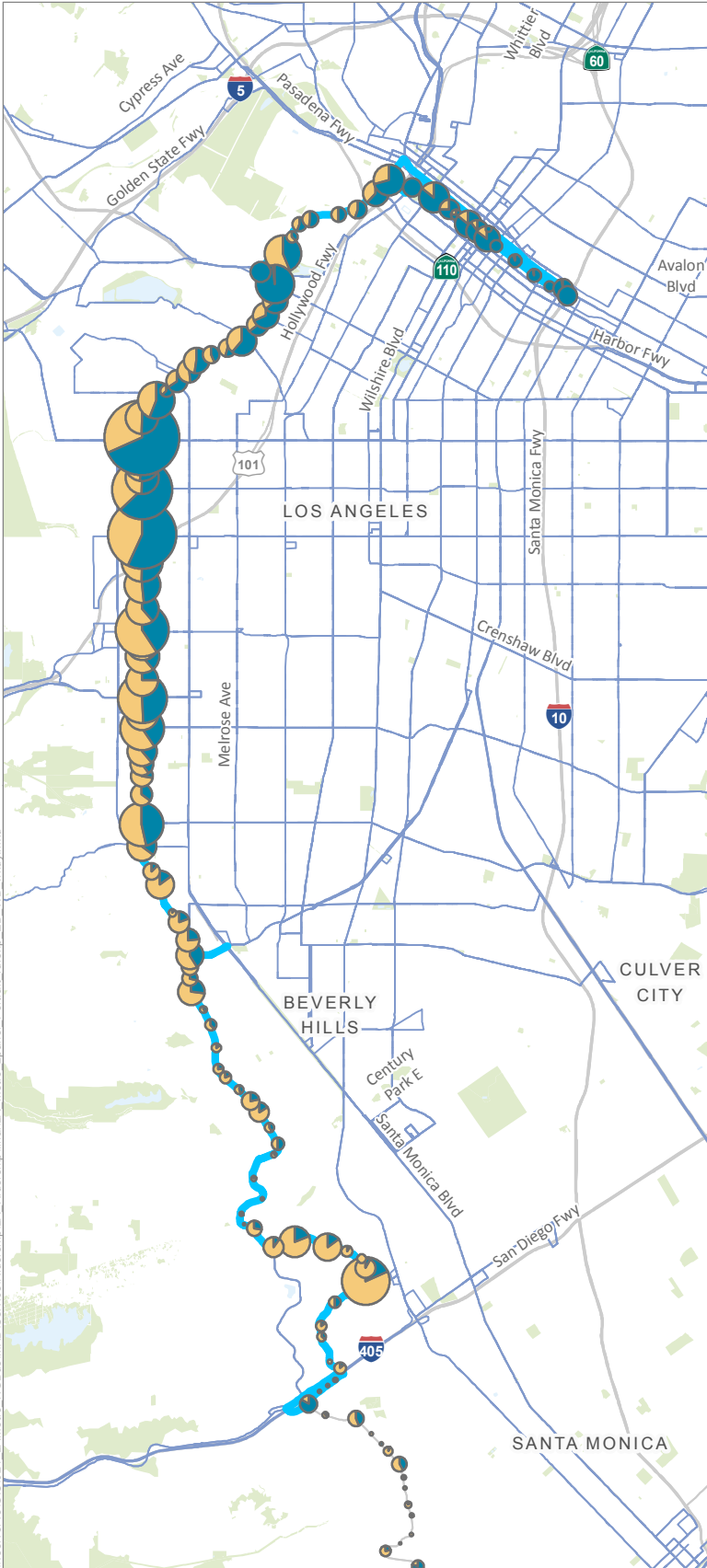
Segments	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL	Sunset/PCH to Le Conte/Broxton	Le Conte/Broxton to Sunset/Fairfax	Sunset/Fairfax to Sunset/Vermont	Sunset/Vermont to Montana/Glendale	Montana/Glendale to Cesar Chavez/Grand	Cesar Chavez/Grand to Venice/Broadway	TOTAL
PASSENGER BOARDINGS PER REVENUE HOUR							PASSENGERS MILES PER REVENUE HOUR							
Early AM	4.4	14.8	60.8	16.1	23.3	21.3	23.4	117.9	173.4	231.2	137.4	158	65.3	148.6
AM Peak	11.9	20.5	77.9	32	43.4	16.5	35.5	149.8	201.1	231.4	110.8	140.8	48.3	165.4
Midday	12.6	16.6	71.8	32.9	54.8	26.8	37.6	154.3	164.2	169.3	115.5	159.4	51.5	144.3
PM Peak	14.9	26.6	68.9	34.8	41.6	26.2	40.1	151.5	184	182.2	127.1	165.9	57.4	154.1
Evening	11	16.7	43.6	21.8	20	21.2	23.7	103.8	123	149.6	109.6	120.3	46.3	110.7
Owl	2.9	15.3	15.7	9.7	9.8	25.2	15.1	11.4	48.1	76.1	110.3	115.3	51.1	76
TOTAL	12.2	20	65.2	29.7	35.8	23.4	33.9	138.7	164.9	177.9	117.4	144.8	51.7	141.1
PASSENGER BOARDINGS PER REVENUE MILE							SUBSIDY PER BOARDING							
Early AM	0.2	1	5.6	1.2	1.4	2	1.7	(\$47.44)	(\$12.33)	(\$1.98)	(\$10.51)	(\$7.76)	(\$6.98)	(\$7.18)
AM Peak	0.7	1.5	8.7	3.3	3.4	2.1	3	(\$15.88)	(\$8.32)	(\$1.23)	(\$4.25)	(\$3.35)	(\$8.31)	(\$4.09)
Midday	0.9	1.3	10	4.3	5.3	3.8	3.9	(\$14.28)	(\$9.89)	(\$1.26)	(\$3.74)	(\$2.23)	(\$4.64)	(\$3.51)
PM Peak	1	2.2	9.6	4.4	3.8	3.5	4.2	(\$12.22)	(\$5.84)	(\$1.34)	(\$3.54)	(\$3.28)	(\$4.85)	(\$3.23)
Evening	0.7	1.3	4.8	2	1.5	2.4	2	(\$17.29)	(\$10.12)	(\$2.82)	(\$6.86)	(\$8.37)	(\$6.63)	(\$6.51)
Owl	0.3	1	1.3	0.6	0.6	2	1	(\$57.85)	(\$11.73)	(\$10.38)	(\$19.84)	(\$20.50)	(\$6.31)	(\$11.76)
TOTAL	0.8	1.5	8.2	3.3	2.9	2.8	3.2	(\$15.26)	(\$8.22)	(\$1.53)	(\$4.52)	(\$4.17)	(\$5.73)	(\$4.14)
PASSENGER BOARDINGS PER TRIP							FAREBOX RECOVERY (%)							
Early AM	2.5	6.7	17	2.8	2.6	4.4	28.4	1.6	5.9	28.3	6.9	9.1	10.1	9.8
AM Peak	7.9	9.6	35.1	8	4.6	5.3	64.6	4.7	8.6	38.8	15.5	18.9	8.6	16
Midday	8.9	9	40.3	10.6	7.5	9.8	73.8	5.2	7.3	38.3	17.3	25.9	14.4	18.2
PM Peak	10.1	15	39.5	10.6	5.6	9	77.5	6	11.8	36.7	18.1	19.2	13.9	19.5
Evening	6	8.3	17.2	4.7	2.7	5.7	36.5	4.3	7.2	21.6	10.2	8.5	10.5	10.7
Owl	0.5	4.5	2.6	1.4	1	3.9	9.9	1.3	6.2	7	3.8	3.7	11	6.2
TOTAL	7.6	10.3	31.1	7.8	4.6	6.9	57.5	4.9	8.7	33.7	14.7	15.8	12	15.8

Line Productivity



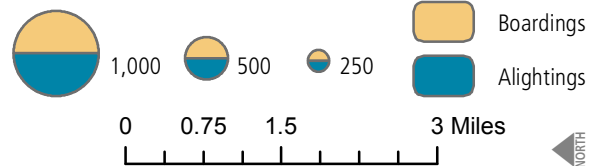
EASTBOUND - WEEKDAY

WESTBOUND - WEEKDAY



LINE 2
Sunset Blvd
TMD

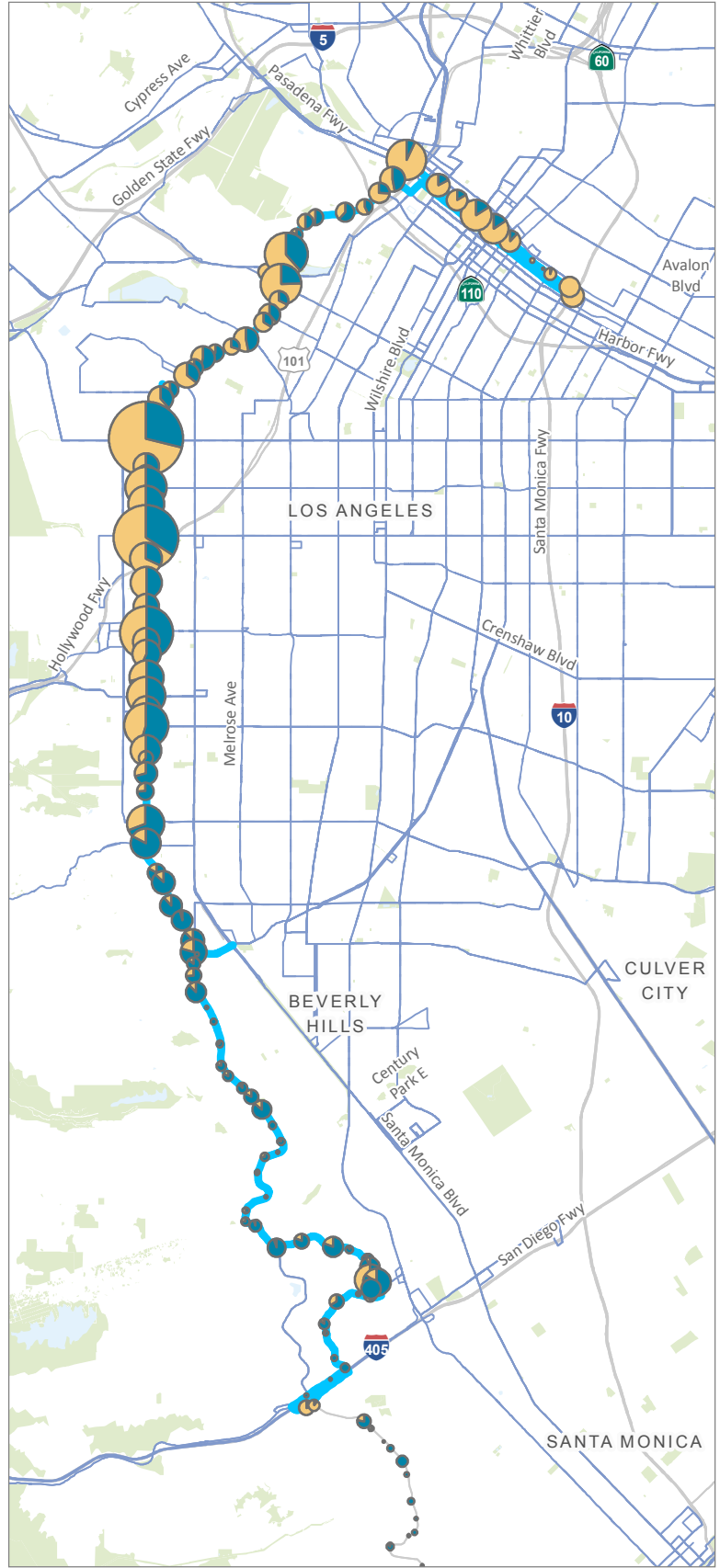
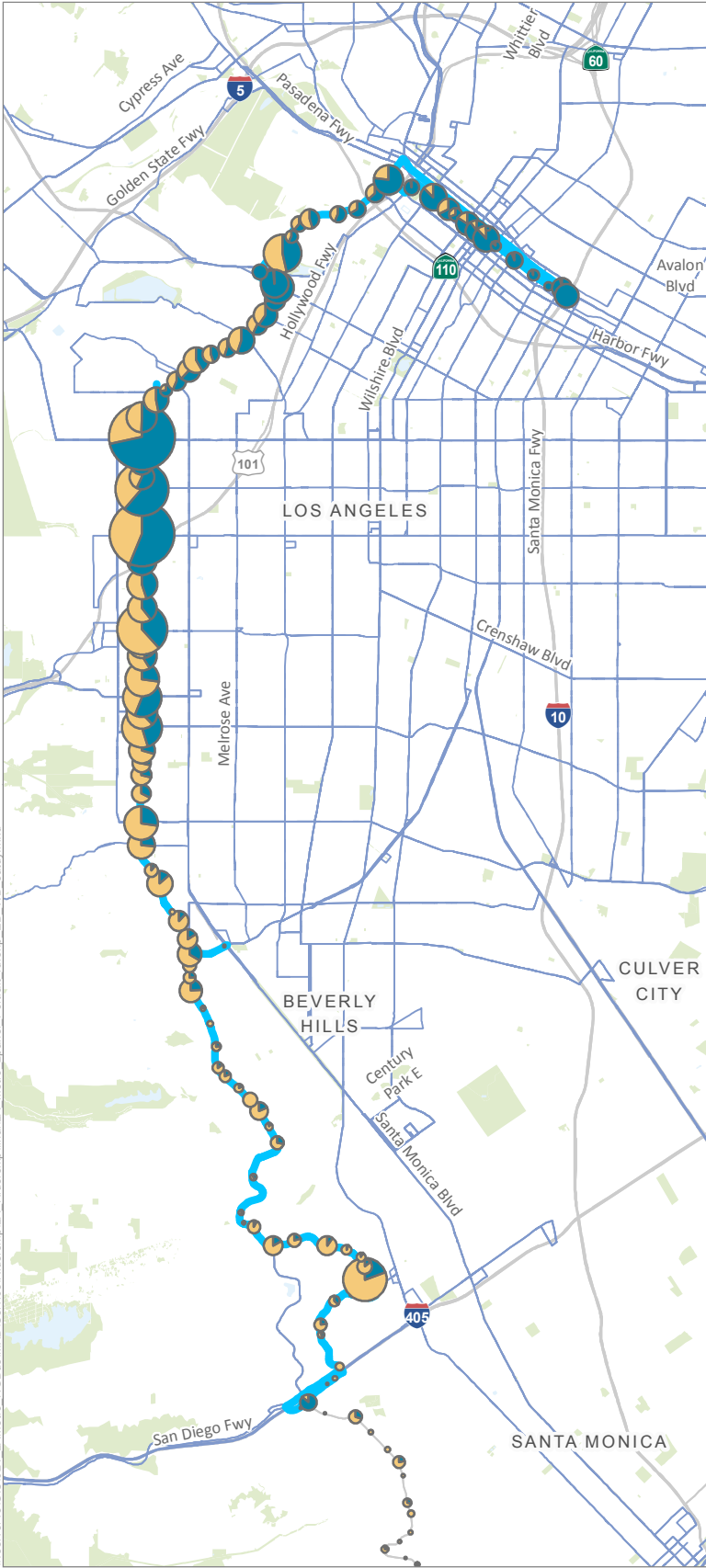
Daily Ridership



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EASTBOUND - SATURDAY

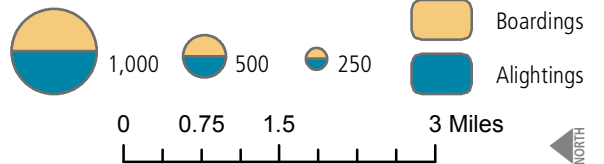
WESTBOUND - SATURDAY



LINE 2 Sunset Blvd



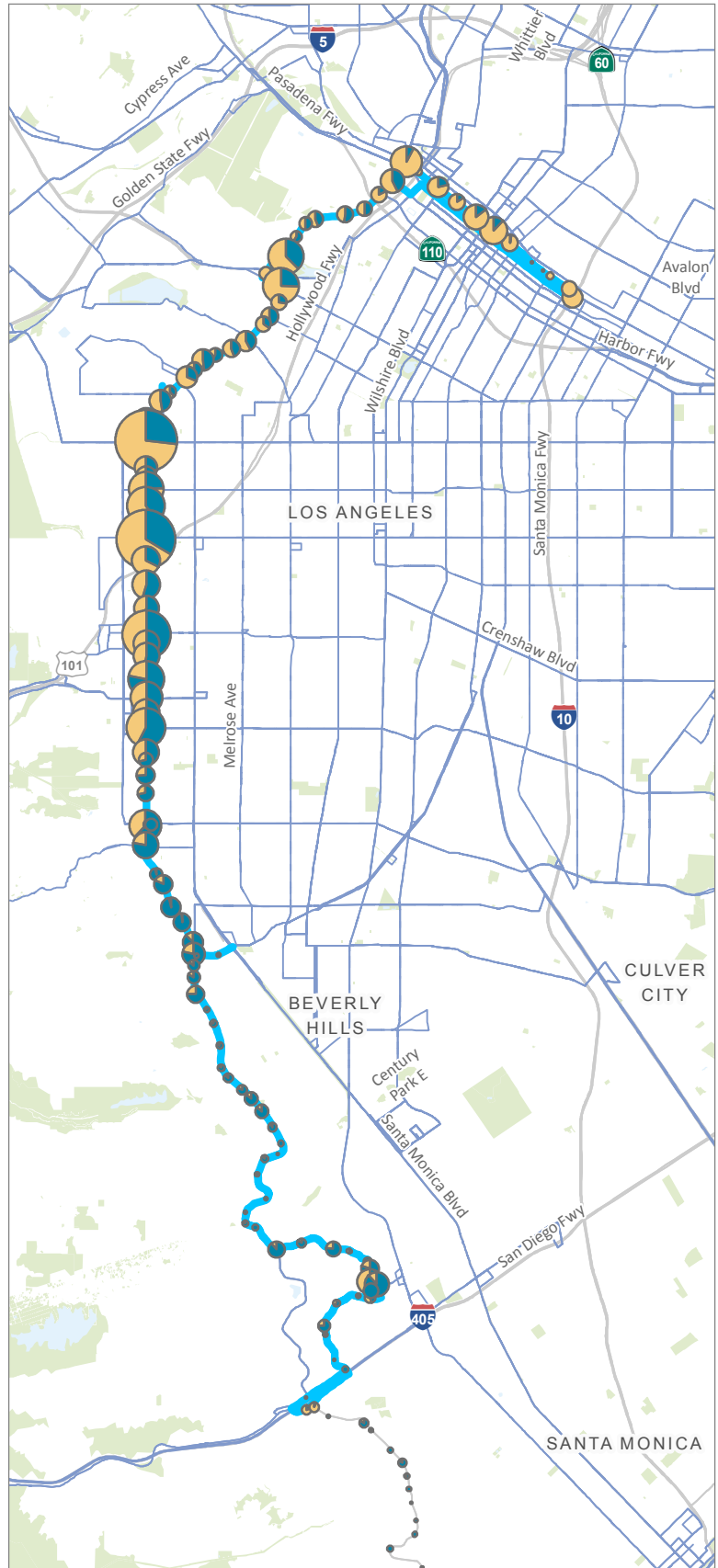
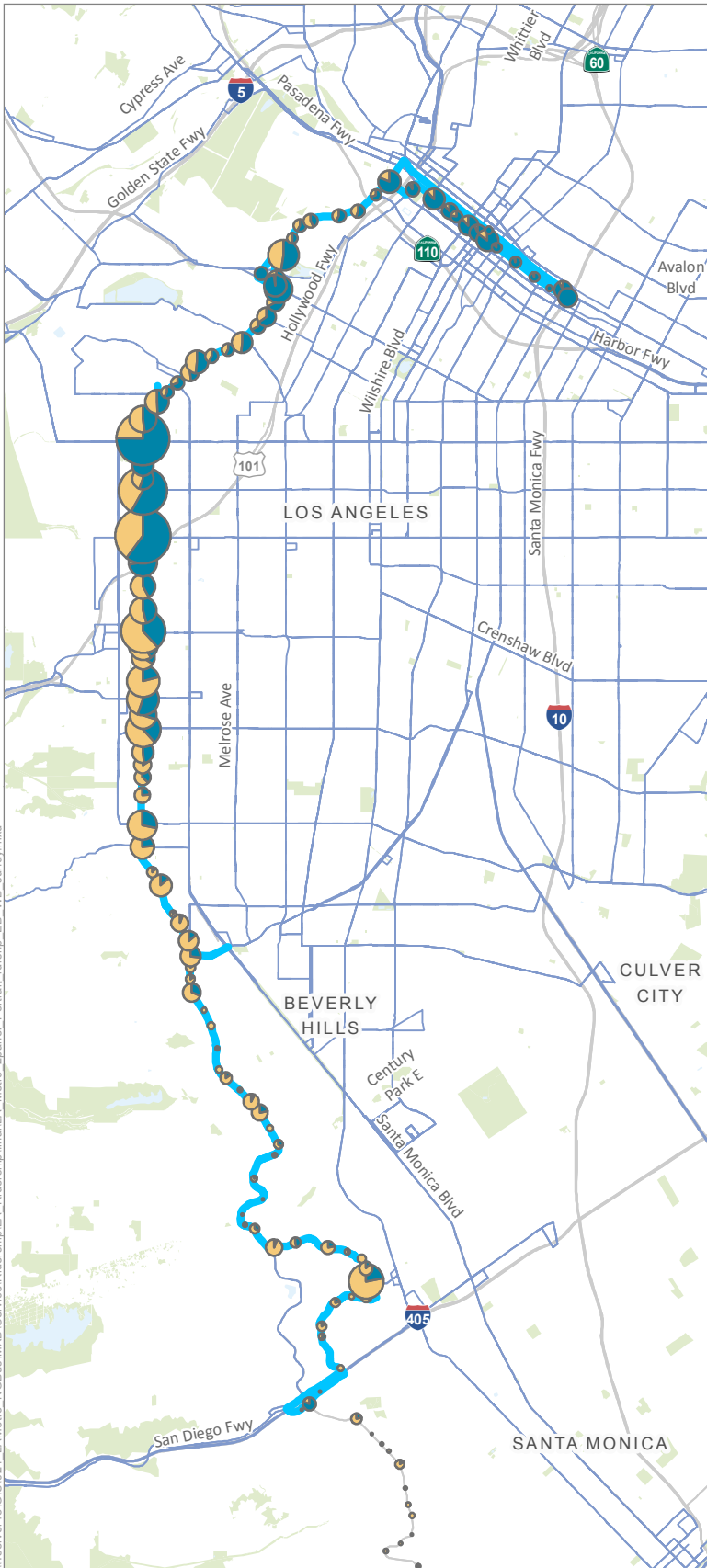
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EASTBOUND - SUNDAY

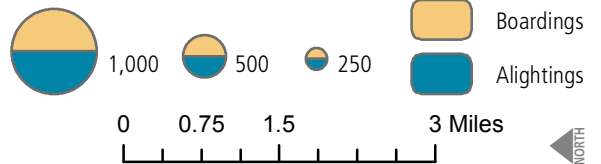
WESTBOUND - SUNDAY



LINE 2 Sunset Blvd



Daily Ridership



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NEXTGEN Bus Study



Public Engagement Summary

February 2018 – June 2019



Metro[®]

NEXTGEN Bus Study

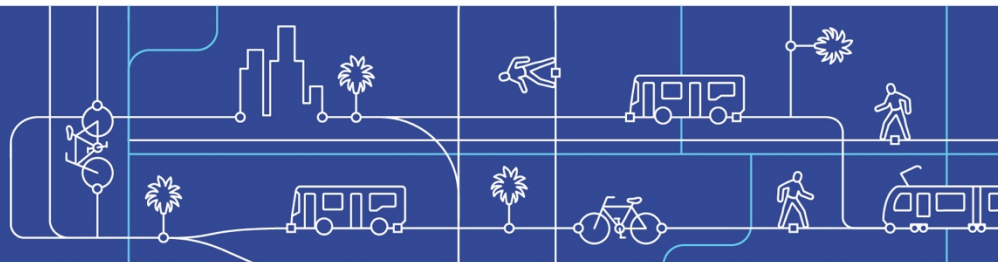
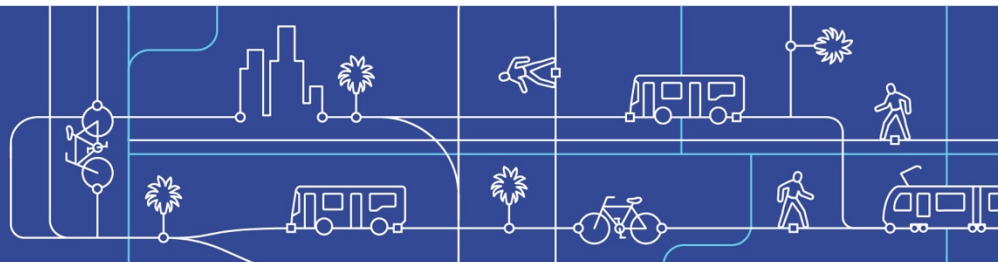


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NEXTGEN Bus Study



EXECUTIVE SUMMARY

1 OVERVIEW

Throughout the 2018 and 2019 calendar year, public engagement to stakeholders across LA County was conducted in an effort to assist the NextGen Bus Study team design a new bus network that is more relevant, reflective of, and attractive to the residents of LA County. These efforts generated improved overall awareness of the NextGen Bus Study and garnered valuable feedback from a wide variety of stakeholder groups.

2 PUBLIC ENGAGEMENT ACTIVITIES (FEBRUARY 2018 – JUNE 2019)

Activities included NextGen Working Group meetings, stakeholder group presentations, participation in community events, transportation roundtables, collection of feedback through public awareness questionnaires, internal stakeholder group meetings and public workshops. Specifically, meetings with key stakeholder groups were held to build relationships with important community members and receive feedback on bus system priorities. We made a concerted effort to ensure that the public engagement cumulatively reflects input that is reflective of the diversity of LA County's population including race, age, ethnicity, geography, income levels, languages, different levels of ability (ADA), current riders and non-riders, and relevant characteristics.

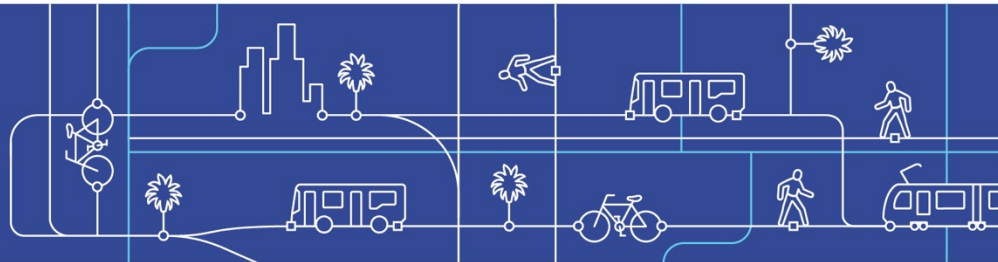
2.1 NextGen Working Group

The NextGen Working Group met a total of four times in 2018 and twice in 2019 with a cumulative attendance of more than 200 individuals. Members of the Working Group represent a variety of stakeholder groups and include representatives from nearly 70 community organizations throughout LA County, including groups such as Service Councils, Advisory Councils, Business and Community Organizations, Chambers of Commerce, Educational Institutions, Government Agencies, Non-Profit, Faith-Based Institutions, Transportation Agencies, Transportation Services and Groups and Union Groups. Attachment A provides a list of all member organizations that have participated in the working group meetings.

The first meeting in March 2018 provided the Working Group with an overview of the study and incorporated a listening session to get a baseline understanding of constituent needs. The second meeting in May 2018 focused on travel patterns, attitudes and preferences, and the Working Group members were asked to identify any additional information or insights that the data may have missed. The next meeting was in July 2018 and gave Working Group members an understanding of the challenges and opportunities that exist with Metro's current bus system, which included review of the evaluation criteria and exploring how market analysis data can help inform bus system redesign decisions. The fourth meeting was in September 2018 and invited Working Group members to explore and provide feedback on different service concepts and policy choices for each of the five different service council areas in the county, which included careful consideration of potential service trade-offs. The meeting in



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2.5 Public Awareness Questionnaires

Two quantitative online questionnaires were also conducted, one in Summer 2018 and the other in Fall 2018. Printed versions of the questionnaires were also made available for use during stakeholder meetings and an ADA-compliant version was created upon request from a member of the seeing-impaired community. The first questionnaire collected information on ridership use and motivations, while the second survey asked respondents to prioritize service concepts and acknowledge tradeoffs via MetroQuest. For the second questionnaire, over 60% were people of color with a balance of genders, age groups, zip codes, and income levels equitably representing the diversity of Los Angeles County. Collectively, the questionnaires collected more than 12,000 responses from both riders and non-riders throughout LA County.

2.6 Public Workshops

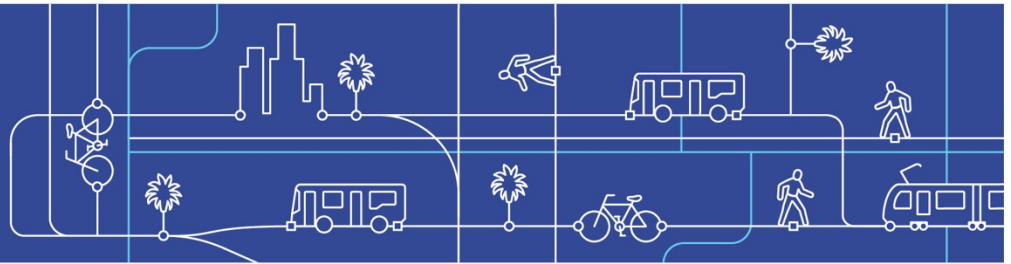
A series of 20 public workshops throughout Los Angeles County were held and served as an opportunity for the general public to learn about the study process, design criteria under consideration, data input received to date, community input heard to date and provide input on their concerns and what service changes they feel would be useful within their community. In total, about 1,800 comments were received from nearly more than 1,000 workshop attendees. The workshop format was strategically designed with stations to educate, inform and bring current all attendees in an interactive way; providing three different methods of commenting.

2.7 Project Information Distribution

Information about the project, availability of the questionnaires and public workshop details were promoted through print advertising, distribution of multi-lingual take-ones, bus advertisements and digital engagement via project toolkits for stakeholder groups, digital ads, social media, emails and website pageviews. This resulted in more than 10 million touchpoints with residents across LA County. Additionally, Working Group members, cities and elected offices were asked to distribute and promote the study and workshop information through their own websites, social media and member list.

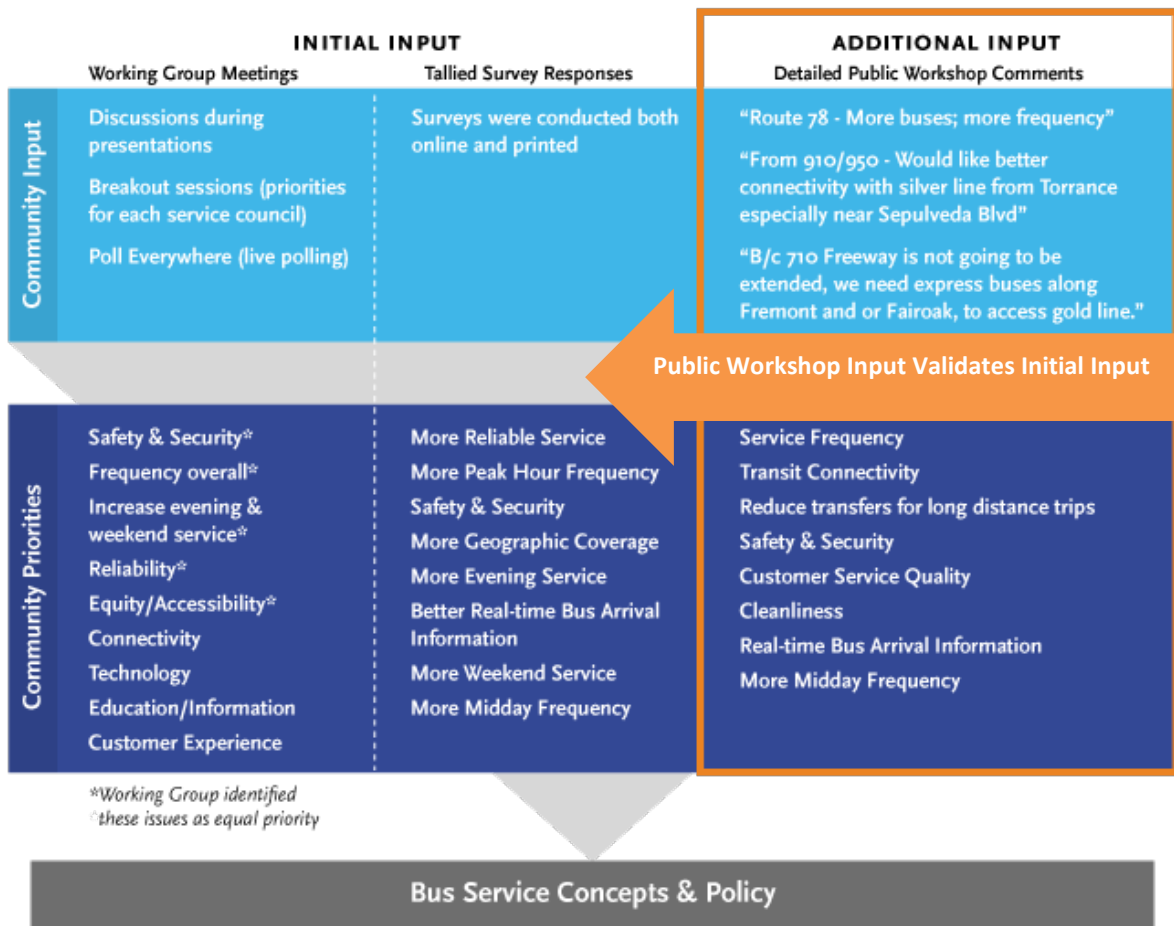
WHAT WE'VE HEARD SECTION ON FOLLOWING PAGE

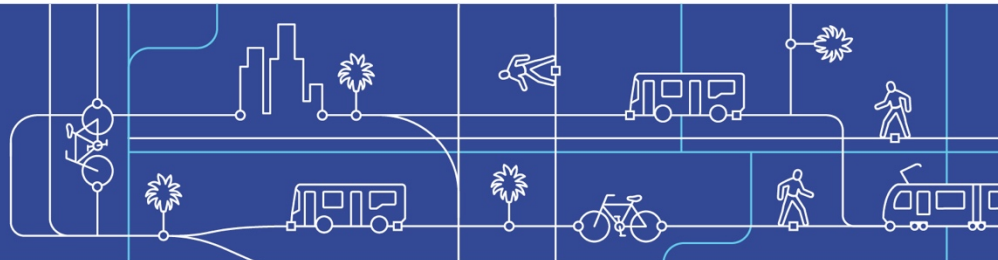
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3 WHAT WE'VE HEARD

The following summarizes the feedback received to date through the outreach activities previously discussed. The recurring themes that emerged during the public workshops reinforced and validated the feedback received from the NextGen Working Group and through online Questionnaires.





NEXTGEN MEETINGS, WORKSHOPS, AND EVENTS

The following table includes all 268 meetings, events and workshops that have taken place throughout the course of the NextGen Bus Study, which has included:

- 86 community events and pop-ups
- 75 briefings with local government, partner agencies, municipal operators, COGs, Metro TAC and other internal stakeholders
- 59 briefings and meetings with community/faith-based organizations and other stakeholder groups
- 22 public workshops (including 2 Telephone Town Halls)
- 20 Metro Service Council presentations
- 6 NextGen Working Group meetings

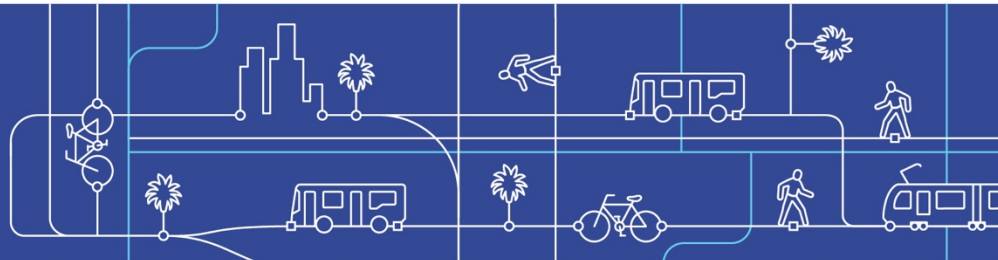
Feedback Received Through Meetings and Events

The desired service improvements and priorities that emerged during these meetings and events were consistent and complementary. Recurring themes included increased frequency, improved reliability, more evening/afternoon service, safety and security, and better connectivity with other systems. Local government and municipal transit operators especially emphasized coordination with Metro to ensure there is not duplication of service and a more seamless experience as a rider transfers between services.

Events/Meetings Table

Date	Event/Meeting	Location
6/14/2019	South Bay Service Council	Inglewood City Hall 1 W Manchester Blvd Inglewood, CA 90301
6/13/2019	Gateway Cities Service Council	Salt Lake Park Community Center 3401 E Florence Ave Huntington Park, CA 90255
6/12/2019	Westside/Central Service Council	Metro Headquarters, Board Room 1 Gateway Plaza Los Angeles, CA 90012
6/10/2019	San Gabriel Valley Service Council	El Monte Division 9 3rd Floor Conference Room 3449 Santa Anita Avenue El Monte, CA
6/4/2019	SELA Collaborative Event (NextGen Booth)	Bell Community Center

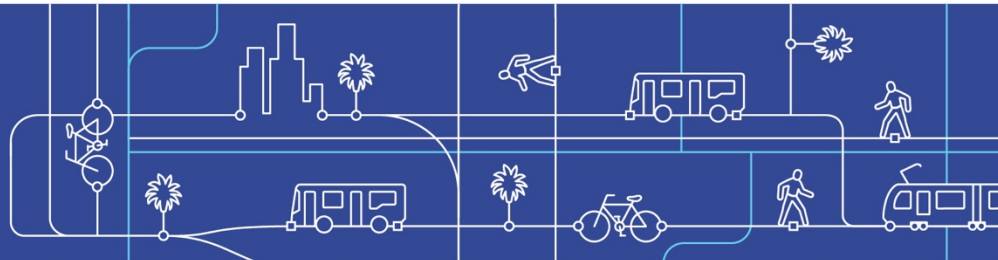
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Date	Event/Meeting	Location
4/30/2019	NextGen: LA Chamber and Bizfed Presentation	Los Angeles Area Chamber of Commerce 350 S. Bixel St. Los Angeles, CA 90017
4/30/2019	NextGen Bus Study Briefing (Norwalk Transit Systems)	12650 E. Imperial Hwy. Norwalk, CA 90650
4/28/2019	CicLAvia- Heart of the Harbor	N. Avalon Blvd and W. Anaheim Street Wilmington, CA
4/25/2019	Metro Board of Directors Meeting	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/23/2019	NBC Universal Earth Day (NextGen)	3900 Lankershim Blvd. Studio City, CA 91604
4/18/2019	Executive Management Committee Briefing	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/16/2019	Presentation to ACLU and DSA (Paloma Nafarrate)	300 N. Brand Blvd. Glendale, CA 91203
4/16/2019	NextGen Focused Workshop (Communities Actively Living Independent & Free)	634 S Spring St, Los Angeles, CA 90014
4/11/2019	NextGen Board Staff Workshop	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/9/2019	Policy Advisory Committee (PAC) NextGen update	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/9/2019	NextGen Focused Workshop	Malibu City Hall, 23825 Stuart Ranch Rd. Malibu, CA 90265
4/2/2019	Working Group Meeting #5	LA Trade Technical College – Aspen Hall
3/28/2019	Board of Directors Presentation (NextGen Bus Study)	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
3/21/2019	Executive Management Committee Briefing	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
3/19/2019	East LA Public Workshop Series Round #2	East Los Angeles Service Center, 133 N Sunol Dr Los Angeles, CA
3/19/2019	Las Virgenes Malibu COG Governing Board – Presentation	CALABASAS LIBRARY, Founders Hall Multipurpose Room 200 Civic Center Way, Calabasas, CA 91302
3/14/2019	Metro Board Staff Briefing	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012



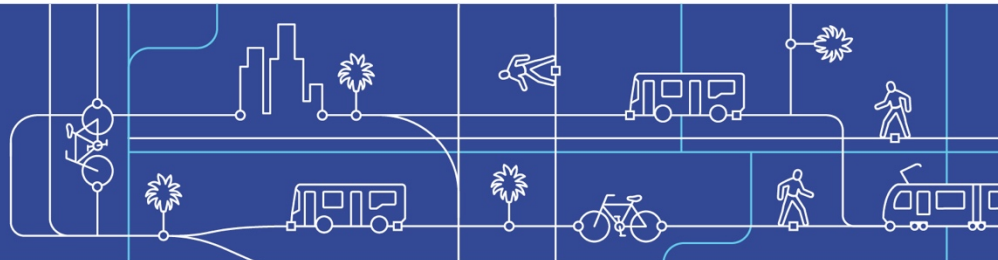
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Date	Event/Meeting	Location
2/17/2019	Bell 5k Run/Walk Booth	6250 Pine Ave, Bell, CA 90201
2/14/2019	Univision – TV Chan 34- Primer Impacto: Metro NextGen Tour	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
2/14/2019	Hollywood Chamber of Commerce Presentation	6255 Sunset Blvd, Ste 150, Hollywood, CA 90028
2/7/2019	Arroyo Verdugo Communities JPA	City Council Chambers – La Cañada City Hall 1327 Foothill Boulevard La Cañada Flintridge, CA 91011
2/6/2019	San Fernando Valley Service Council/ Public Workshop Series Round #1	Marvin Braude Constituent Center 6262 Van Nuys Blvd Van Nuys, CA 91401
1/31/2019	South Bay Service Council/ Public Workshop Series Round #1	Inglewood City Hall Community Room 1 W Manchester Blvd Inglewood, CA 90301
1/30/2019	Crenshaw Community Leadership Council Quarterly Meeting	LA Dept. of Water and Power, Community Room, 4030 Crenshaw Blvd., LA CA 90008
1/28/2019	Association of Commuter Transportation General Membership Meeting- NextGen Review	Anaheim City Hall 200 S Anaheim Blvd Anaheim, CA 92805
1/26/2019	Public Workshop Series Round #1: Central Los Angeles	LA Trade Tech 2215 S. Grand Av Los Angeles, CA 90012
1/24/2019	San Gabriel Valley Service Council/ Public Workshop Series Round #1	Pasadena Senior Center 85 E Holly St Pasadena, CA 91103
1/23/2019	Gateway Cities Service Council/ Public Workshop Series Round #1	Dollarhide 301 N Tamarind Ave Compton, CA 90220
1/21/2019	Rev. Dr. Martin Luther King, Jr. Day Parade	Los Angeles CA
1/18/2019	Central LA Faith Leaders Meeting	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012



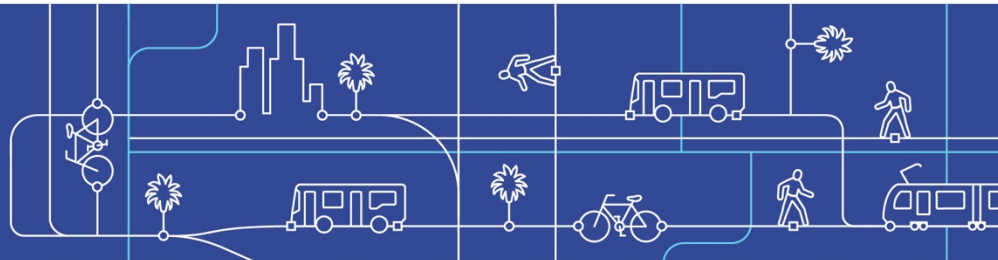
NEXTGEN Bus Study



Date	Event/Meeting	Location
1/17/2019	Public Workshop Series Round #1: Torrance	El Camino College 16007 Crenshaw Blvd Torrance, CA 90506
1/16/2019	Public Workshop Series Round #1: San Gabriel	Asian Youth Center 100 W. Clary Ave., San Gabriel, CA 91776
1/12/2019	Public Workshop Series Round #1: Bell	Bell Community Center
1/10/2019	San Gabriel Valley Transit Providers Meeting	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
1/10/2019	How Women Travel Advisory Group	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
1/9/2019	Westside/Central Cities Service Council/ Public Workshop Series Round #1	Plummer Park 7377 Santa Monica Bl West Hollywood, CA 90046
1/8/2019	Public Workshop Series Round #1: Pacoima	Hubert Humphrey Recreation Center 12560 Filmore Street Pacoima, CA 91331
12/13/2018	Gateway Cities Service Council- NextGen Bus Study Working Group Update	Salt Lake Park Community Center 3401 E Florence Av. Huntington Park
12/11/2019	South LA Transit Empowerment Zone	LA Trade Tech College-Aspen Hall, LA CA
12/11/2018	BSMLA/Para Los Ninos Presentation: San Pedro/All Peoples	All Peoples Community Center
12/11/2019	Watts Rising Collaborative/Housing Authority of Los Angeles	HACLA, 2600 Wilshire Blvd., LA CA
	NextGen PAC	
10/12/2018	LA Chamber of Commerce	
12/7/2018	BSMLA/Para Los Ninos Presentation: Alianza Best Start	Angelica Church (MacArthur Park/Koreatown)
12/6/2018	BSMLA/Para Los Ninos Presentation: Ambassador	Francis Community Garden
12/5/2018	BSMLA/Para Los Ninos Presentation: Universal Dream Team	Menlo Family Center



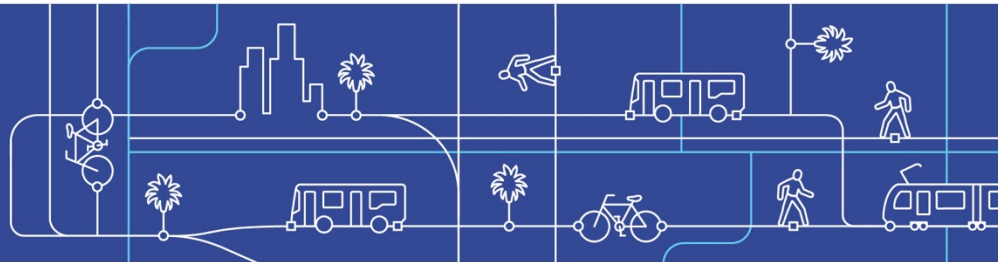
NEXTGEN Bus Study



Date	Event/Meeting	Location
12/4/2019	Metro BOS Committee	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
12/3/2018	BSMLA/Para Los Ninos Presentation: Richardson Park	Richardson Family Park
12/2/2018	CicLAvia: Heart of LA	Alameda and 3 rd , Los Angeles, CA (center of event)
11/30/2019	Union Station Area Roundtable	Metro Headquarters, One Gateway Plaza, LA CA 90012
11/29/2018	BSMLA/Para Los Ninos Presentation: Estrella	Living Hope 7 th Day Adventist Church 650 W. 21 st Street L.A. CA 90007
11/28/2018	BSMLA/Para Los Ninos Presentation: Angeles	Francis Community Garden
11/27/2018	BizFed Transportation Committee	SCAG – Regional Council Room 900 Wilshire Blvd Los Angeles, CA 90017
11/26/2018	BSMLA/Para Los Ninos Presentation: Hope Street	Hope Street Margolis Family Ctr.
11/19/2019	Northern Corridor Cities Quarterly Briefing	Burbank City Hall, Burbank CA
11/15/2019	Metro Streets and Freeways Committee	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
11/13/2018	Gateway Cities Transit Providers	Metro Division 13 920 N. Vignes St. LA, CA 90012
11/10/2018	Brave 5K Veterans Walk/Run	
11/8/2018	Move LA Presentation	Move LA HQ 634 South Spring St. Los Angeles, CA 90014
11/7/2018	Metro Technical Advisory Committee Presentation	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
11/6/2018	Valley Industry Commerce Association (VICA) Presentation	VICA HQ 16600 Sherman Wy. Van Nuys, CA 91406



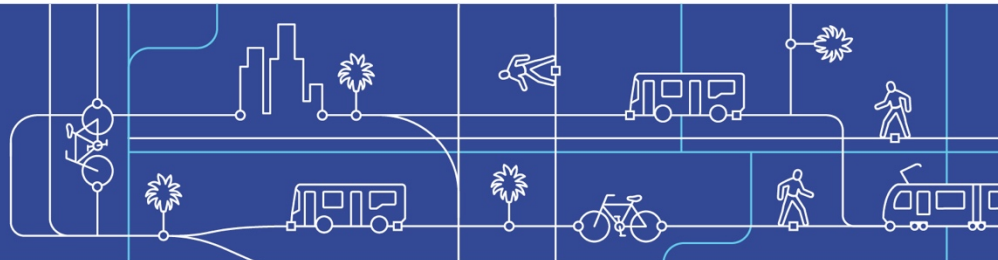
NEXTGEN Bus Study



Date	Event/Meeting	Location
11/6/2018	Slate-Z Presentation	Slate-Z HQ 400 W. Washington Blvd. Los Angeles, CA 90015
10/30/2019	NextGen Bus Study Technical Advisory Committee	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
10/26/2019	Older Adult Transportation Annual Expo	Cathedral of Our Lady of the Angels, Los Angeles, CA
10/25/2018	Greater Zion Church Family Workshop	Greater Zion Church Family 2408 N. Wilmington Compton CA
10/20/2018	Strides for Disabilities 5k Run/ Walk	
10/19/2018	Mobility 21	JW Marriott at LA Live 900 W. Olympic Blvd. Los Angeles, CA 90015
10/12/2018	BSMLA Community Guidance Meeting Presentation	First Baptist Church of LA 760 S Westmoreland Ave. Los Angeles, CA 90005
10/12/2018	On-Board Bus Surveying	Vermont/Wilshire Metro Station 3191 Wilshire Blvd. Los Angeles, CA 90010
10/9/2018	On-Board Bus Surveying	Vermont/Wilshire Metro Station 3191 Wilshire Blvd. Los Angeles, CA 90011
10/5/2018	CSULA Regional Student Mobility Forum-NextGen update	Third floor ASI Board room, University Student Union Building California State University, Los Angeles 5154 State University Drive L.A. 90032
10/2/2018	Los Angeles Area Chamber of Commerce- NextGen update to Transportation and Goods Movement Council	LOS ANGELES AREA CHAMBER OF COMMERCE 350 S. Bixel St. Los Angeles, CA 90017
10/1/2019	LA County Public Works Rideshare Event	900 Fremont Ave., Alhambra, CA
9/30/2018	Celebrate LA! LA Phil 100 x CicLAvia	Hollywood/Downtown Los Angeles
9/28/2018	Quarterly Legislative Briefing	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012



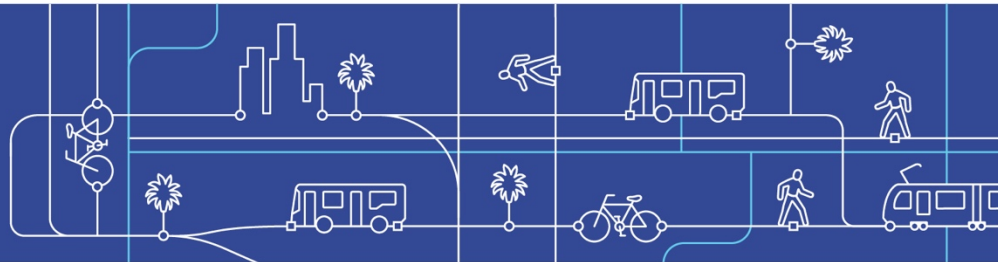
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Date	Event/Meeting	Location
5/24/2018	Metro Board Meeting	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
5/23/2018	Older Adult Transportation Pop-Up	West Hollywood Council Chambers 625 N San Vicente Blvd West Hollywood, CA 90069
5/22/2018	DaVinci Schools Student Presentation to Metro	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
5/22/2018	NextGen Working Group #2	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
5/19/2018	Regional Connector Halfway There Community Celebration	Japanese American National Museum 100 N Central Ave Los Angeles, CA 90012
5/10/2018	DTLA Art Walk	Downtown LA 634 S Spring St Los Angeles, CA 90014
5/9/2018	City of Los Angeles- Commission on Disability	Los Angeles City Hall, 3rd Floor, 200 N Spring St, Los Angeles, CA 90012
5/5/2018	Cinco De Mayo Celebration at Olvera Street	El Pueblo Historical Monument 125 Paseo de la Plaza Los Angeles, CA 90012
5/5/2018	25th Annual Downey Street Faire	Brookshire Ave between 5th St and Firestone: 11121 Brookshire Ave Downey, CA 90241
5/3/2018	DaVinci School Visit: Project Check-in/Updates	Da Vinci Schools 201 N Douglas St, El Segundo, CA 90245
5/1/2018	Metro Policy Advisory Committee	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/26/2018	Bus Drivers RAP Session Meeting - DTLA Central	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/25/2018	Bus Drivers RAP Session Meeting - El Monte	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/25/2018	Bus Drivers RAP Session Meeting - DTLA Vignes	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012



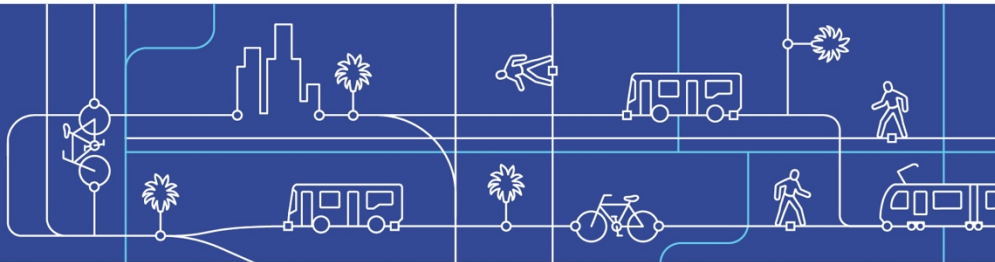
NEXTGEN Bus Study



Date	Event/Meeting	Location
4/9/2018	San Gabriel Valley Service Council	Metro, El Monte Division 9 Building, 3rd Fl, Service Council Room 3449 Santa Anita Ave, El Monte, CA 91731 (Santa Anita Ave/Ramona Blvd)
4/6/2018	Metro Customer Care Focus Group	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/5/2018	Bus Drivers RAP Session Meeting - DTLA Mission	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/5/2018	Telephone Town Hall Meeting	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/4/2018	Metro Customer Care Focus Group	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/4/2018	Telephone Town Hall Meeting	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
4/4/2018	San Fernando Valley Service Council	Marvin Braude Constituent Center 6262 Van Nuys Blvd, Van Nuys, CA 91401
4/3/2018	Metro Policy Advisory Council	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
3/27/2018	NextGen Working Group #1	Metro Headquarters, One Gateway Plaza, Los Angeles, CA 90012
3/27/2018	LA Council of Religious Leaders (LACRL)	Metro Headquarters, 25th Fl, Highland Park Room
3/23/2018	Metro Faith Leaders Council	West Angeles Church, 3025 Crenshaw Blvd., LA CA 90016
3/19/2018	San Gabriel Valley Transit Providers Meeting	Pasadena City Hall - Grand Conference Room, Pasadena CA
3/16/2018	Meeting w/ DaVinci Schools	Da Vinci Schools
2/1/2018	Quarterly Labor Management Meeting	Metro Headquarters, 4th Fl, Plaza View Room
11/27/2017	Gateway Cities Transit Providers Quarterly Meeting	



NEXTGEN Bus Study



PRIORITIES QUESTIONNAIRE

By building strong relationships with faith-based and community groups, the Metro team was able to leverage digital tools that help stakeholders understand the complexity of redesigning an entire bus system, resulting in obtaining quality feedback from often underrepresented stakeholders that considered both technical aspects of the system and personal needs and experiences. Ultimately, over 60% of respondents were people of color with a balance of genders, age groups, zip codes, and income levels equitably representing the diversity of LA County. The questionnaire input deadline was extended multiple times to accommodate request from Community Based Organizations for additional input time.

The MetroQuest questionnaire asked respondents to prioritize service concepts and acknowledge tradeoffs. The following highlight respondent priorities:

Set Your Budget Screen

Category	Total Budget Allocated	Percentage of Total
More reliable service	95,263	15.8%
More peak hour frequency	85,999	14.3%
More safety and security	81,252	13.5%
More geographic coverage	75,143	12.5%
More evening service	74,477	12.4%
Better real-time bus arrival info	74,183	12.3%
More weekend service	64,507	10.7%
More midday frequency	51,139	8.5%

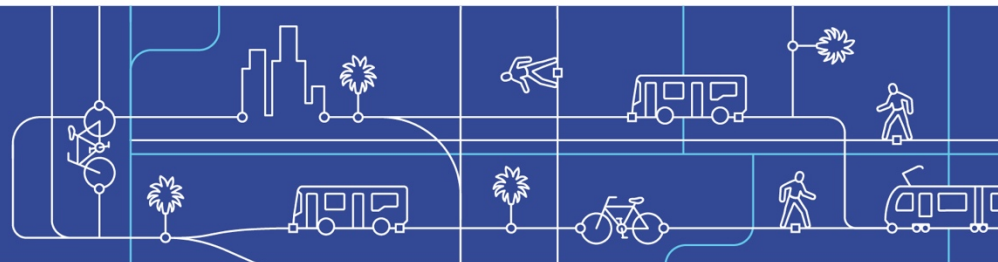
Note: Budget allocated refers to the total value of the coins allocated to each category.

Tradeoffs

Route Design			System Design			Service Times		
Fewer stops	Neutral	More stops	More buses	Neutral	More routes	Rush hour	Neutral	Non-rush hour
54.3%	22.3%	23.3%	54.0%	17.5%	28.5%	53.7%	15.5%	30.8%

Connectivity			Reliability		
More transfers	Neutral	Direct route	Reliable service	Neutral	Reliable info
41.9%	16.6%	41.6%	54.1%	10.9%	35.0%





2019 PUBLIC WORKSHOPS

Public Workshops Overview

The NextGen Bus Study public workshops leveraged stations that were intentionally designed to be interactive and create an environment of inclusion and collaboration, which opened a dialog between the Metro service planning team and the residents the system serves. All meetings emphasized the importance of Metro staff interacting with bus riders and residents, forging an understanding between service developers and Metro riders. These workshops provided an opportunity for the public to learn about and provide feedback on current Metro bus service, and a forum for community input that encouraged an ongoing dialogue with current and non-riders. Given the impact service changes may have on communities and residents, Metro placed great emphasis on engaging with the public and key stakeholders to ensure their concerns and comments are considered and included during the service redesign process.

At the end of the initial 10 public workshops, 1,083 public comments were received from 675 highly engaged attendees. Due to the success in attendance and constructive comments received, the NextGen Bus Study then hosted an additional 10 targeted public workshops, resulting in an additional 721 comments from 356 attendees. In total, **1,804 comments** were received from **1,031 individuals**.

Over the course of the 20 workshops, the following reoccurring themes for improving service across the county emerged (in order of most recurring):

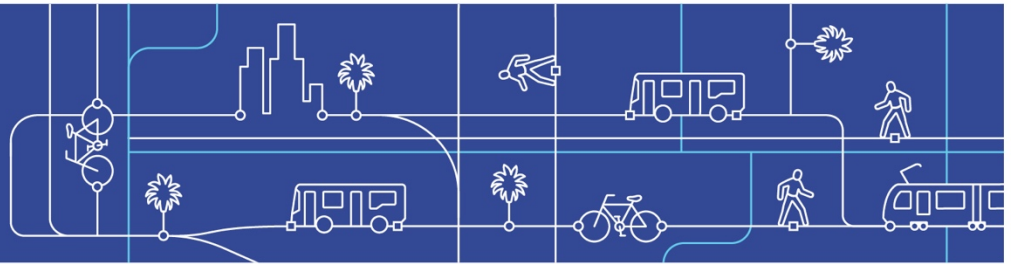
Bus Service Related Themes

- Increase service frequency and decrease average wait times.
- Provide real time information as it pertains to scheduling and bus arrivals.
- Create greater transit connectivity throughout Los Angeles County.
- Eliminate the number of transfers needed during long distance travel.
- Coordinate with other municipal bus operators and local transit providers.
- Provide more mid-day service and late-night service.

Passenger Experience Themes

- Enhance safety and security improvements on the bus and at bus stops.
- Increase quality of customer service from Metro staff.
- Improve cleanliness on buses and at bus stops.
- Provide better First-Last Mile improvements along bus routes

NEXTGEN Bus Study

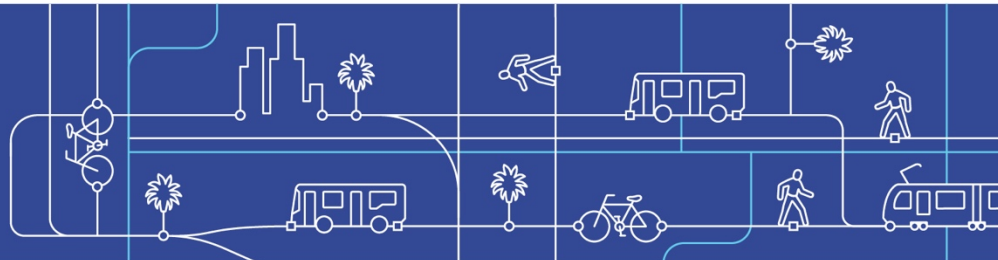


San Gabriel Valley

- Improvements to arrival time accuracy at bus stops and on the Metro app are needed.
- Provide more Rapid service from San Gabriel Valley into Downtown and Central Los Angeles.
- Hours of operation on major lines like the 489 and 780 need to begin earlier in the morning. Ideally before 6am Monday-Friday.
- The Temple City Youth Committee surveyed 148 students and 63 adults about their public transportation concerns. 37 percent of people surveyed have never taken public transportation. Common problems included the issues of safety, TAP cards are difficult to access, speed, reliability, and overcrowding. Participants felt additional stops are needed as well as shade covers, more security, and videos on how to ride the bus and read the maps.

INDIVIDUAL WORKSHOP SUMMARIES ON FOLLOWING PAGES

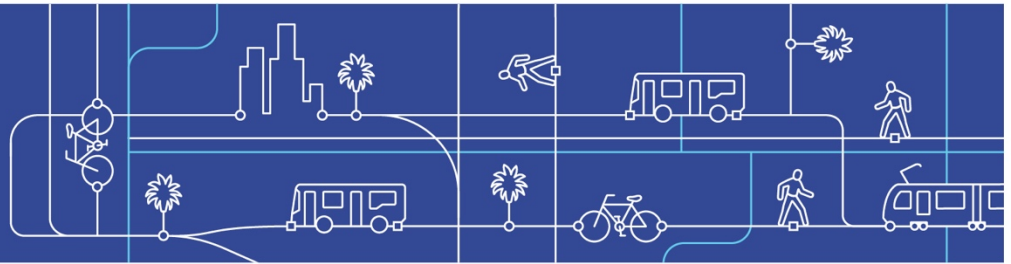
NEXTGEN Bus Study



West Hollywood - Plummer Park Wednesday, January 9 th , 2019	
People Attending	<p>A total of 97 people signed into the workshop</p> <ul style="list-style-type: none"> • 91 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 84 roll-out map comment submissions • 38 comment card submissions • 20 online GIS comment submissions • 142 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Malcolm Harris, Los Angeles Black Worker Center (LABWC) • Zachary Gaidzik, LA Field Deputy & Caseworker- LA County Board of Supervisors, Office of Sheila Kuehl 3rd District • Madeline Brozen, City of Beverly Hills • Martha Eros, City of Beverly Hills • David Feinberg, Santa Monica Big Blue Bus • Ernesto Hidalgo, City of West Hollywood • Alba Velasquez, City of West Hollywood • Elliot Petty, City of West Hollywood • Perri Sloane Goodman, City of West Hollywood • Josh Kurpies, District Director, Office of Congressman Richard Bloom 50th District West Los Angeles • Nathan Serafin, Westside Cities Council of Government • David Eichman, West Hollywood Transportation Commission • Matt Stauffer, Santa Monica Chamber of Commerce • George Taule, Westside/Central Service Council • Alba Velasquez, Westside/Central Service Council • Elliot Petty, Westside/Central Service Council • David Feinberg, Santa Monica Big Blue Bus • Leor Alpern, South Coast Air Quality Management District (SCAQMD)
Media	<ul style="list-style-type: none"> • N/A



NEXTGEN Bus Study

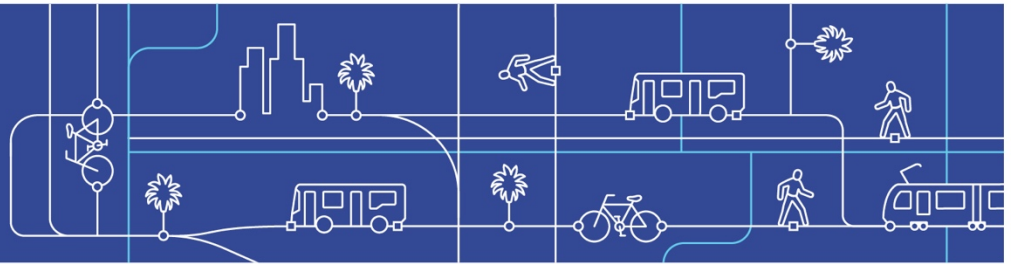


West Hollywood - Plummer Park Wednesday, January 9th, 2019 *(cont.)*

Key Themes

- Increase service frequency to following lines: 217, 712, 312, 780, 704
- Increase bus lanes on Santa Monica Blvd.
- Create/provide more bus service from West Hollywood to LAX.
- More accurate real-time arrival departure times for routes.
- Increase safety measures at stops (lighting, emergency buttons, Metro police).
- Increase first/last miles options (shuttles) in area.
- Concern that all riders should be providing full payment and no “free” rides are allowed.

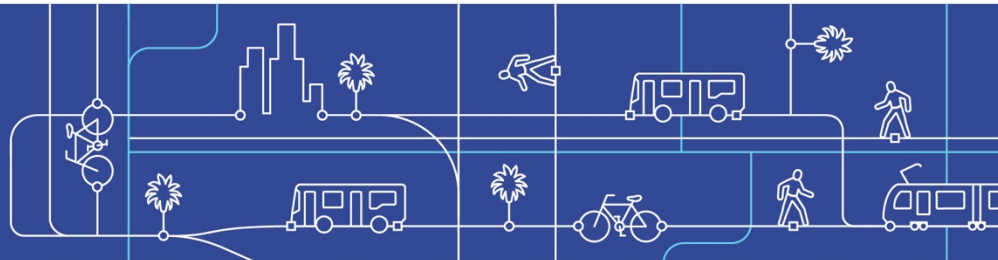
NEXTGEN Bus Study



Bell - Bell Community Center Saturday, January 12th, 2019	
People Attending	A total of 38 people signed into the workshop <ul style="list-style-type: none"> 31 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> 59 roll-out map comment submissions 15 comment card submissions 7 online GIS comment submissions 81 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> Wally Shidler, Gateway Cities Service Council Wajeha Bilal, Watts Rising Collaborative Kristina Valenzuela, UCLA Transportation, Association for Commuter Transportation (ACT) Wilma Franco, SELA Collaborative Antonio Chapa, District Director, LA County Board of Supervisors Office of Hilda Solis 1st District Al Rios, South Gate City Council Sam Pena, Gateway Cities Service Council Joe Strapac, Gateway Cities Service Council Lori Woods, Signal Hill City Council
Media	<ul style="list-style-type: none"> N/A
Key Themes	<ul style="list-style-type: none"> Increase bus service at the end of rail lines traveling in similar direction. Increase mid-day service to all lines. Improve public transportation diversity in South East Los Angeles (shuttles, scooters, Metro bikes). Increase service to East Los Angeles College and Cal State LA. Increase visibility of Metro police presence at stops/stations. Rapid buses down major thoroughfares like Huntington Blvd, Rosecrans Ave, Sepulveda. Service running from Central Los Angeles to South East Los Angeles cities should be increased. Improve customer service of operators.



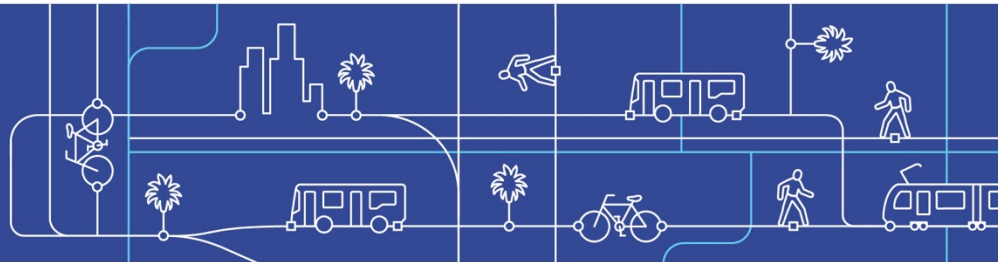
NEXTGEN Bus Study



San Gabriel - Asian Youth Center Wednesday, January 16th, 2019	
People Attending	A total of 84 people signed into the workshop <ul style="list-style-type: none"> 70 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> 34 roll-out map comment submissions 28 comment card submissions 12 online GIS comment submissions 74 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> Chin Ho Liao, Councilmember, City of San Gabriel Peggy Kuo, City of Temple City Jillian Nunez, Deputy City Clerk, City of Temple City Lisa Thong, Asian Pacific Islander Forward Movement Chloe Chuong, Temple City Youth Committee Florence Lin, Director, Asian Youth Center Eduardo Vega, City of Cerritos
Media	<ul style="list-style-type: none"> Shawn Liu, News Agency America Gigi Lee China Press
Key Themes	<ul style="list-style-type: none"> Service for the 489 and 487 lines should begin before 5:30AM on weekdays. Improve arrival/departure reporting accuracy at stops and on Metro app. Provide more Rapid service originating in San Gabriel Valley to Downtown Los Angeles. Increase service coming to and departing from Gold Line stations in San Gabriel Valley. Silver Line is not reliable during peak am/pm hours. Expand the TAP U-Pass program to high schools.



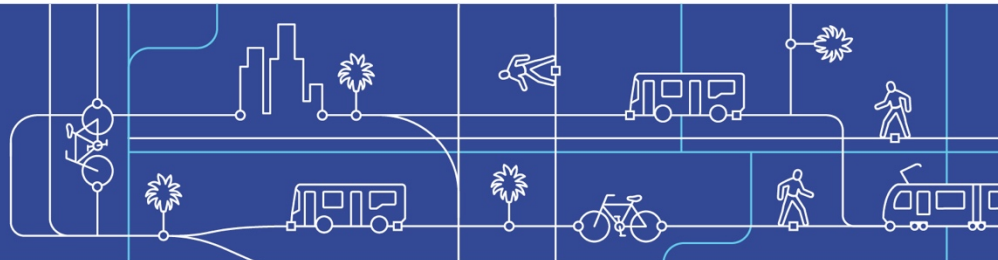
NEXTGEN Bus Study



Torrance - El Camino Community College Thursday, January 17th, 2019	
People Attending	A total of 25 people signed into the workshop <ul style="list-style-type: none"> • 22 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 31 roll-out map comment submissions • 11 comment card submissions • 8 online GIS comment submissions • 51 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Steve Lantz, South Bay Cities Council of Government • Michael Ervin, Asst. Deputy of Transportation, Office of County Supervisor Janice Hahn 4th District • Luis Duran, South Bay Service Council • Mark MacDougall, Torrance Transit • Hamilton Cloud, Office of Congresswomen Maxine Waters 43rd District Central Los Angeles
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Convert the 344 to a Rapid service or increase the number of buses on the route. Service is too infrequent. • Increase daily peak service from South Bay to West Los Angeles. • Incorporate fare payment ability into Metro app. • Consider piloting a distance-based fare model for some bus routes.



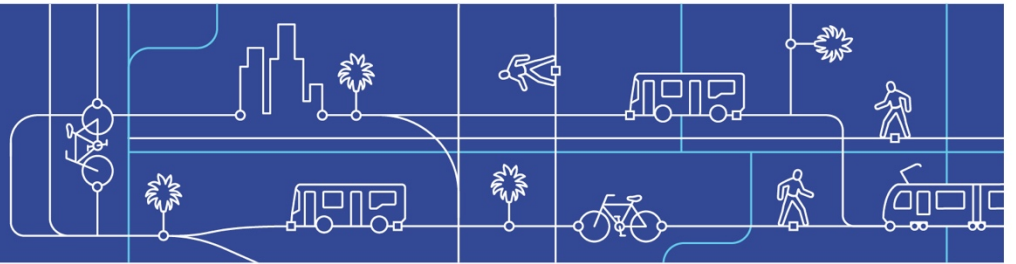
NEXTGEN Bus Study



Compton - Dollarhide Community Center Wednesday, January 23rd, 2019	
People Attending	A total of 41 people signed into the workshop <ul style="list-style-type: none"> • 38 attendees provided home addresses and/or email address
Comment Cards	<ul style="list-style-type: none"> • 26 roll-out map comment submissions • 7 comment card submissions • 6 online GIS comment submissions • 39 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Diana Medel, Field Representative, Office of State Assembly Member Mike Gipson 64th District South Los Angeles • Jo Ann Eros Delgado, Metro Gateway Cities Service Council • Al Rios, South Gate City Council • Sam Pena, Gateway Cities Service Council • Joe Strapac, Gateway Cities Service Council • Wally Shidler, Gateway Cities Service Council • Sharon Weissman, Board Deputy and Sr Advisor to Long Beach Mayor Robert Garcia • Michael Ervin, Asst. Deputy of Transportation, Office of Los Angeles Board Supervisor Janice Hahn 4th District • Norchelle Brown, Policy Assistant, Office of Congresswoman Nanette Diaz Barragan 44th District South Los Angeles • Wajeha Bilal, Watts Rising Collaborative • Lori Woods, Metro Gateway Service Council • Billy Earley, Build Plus Community
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Improve the service in Compton for lines 51 and 35 • Create a Silver Line type service that ends in DTLA that only stops three times. • More buses and better overall service to the 270 and 130 lines • Extend the 760 Rapid into Compton.



NEXTGEN Bus Study

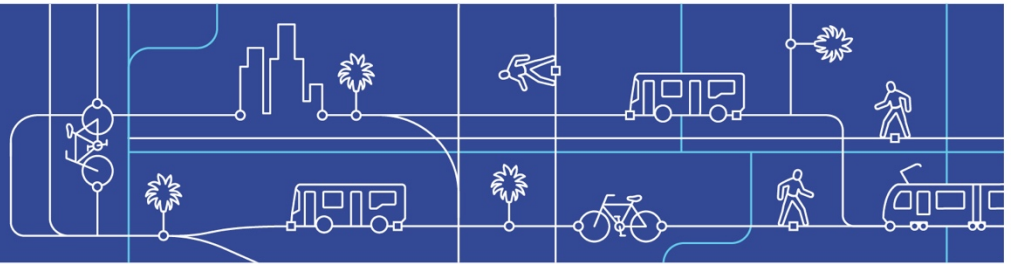


Pasadena - Pasadena Senior Center Thursday, January 24th, 2019 *(cont.)*

Key Themes *(cont.)*

- Work with neighboring transit agencies to eliminate transit gaps.
- Improve accuracy of arrival/departure times on signage.

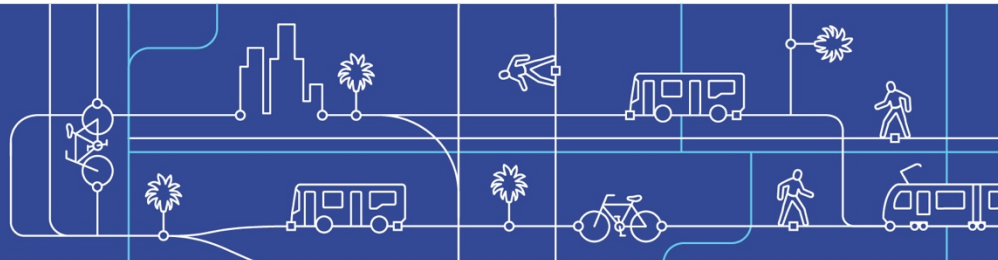
NEXTGEN Bus Study



Inglewood - Inglewood City Hall Thursday, January 31st, 2019	
People Attending	A total of 53 people signed into the workshop <ul style="list-style-type: none"> • 51 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 51 roll-out map comment submissions • 6 comment card submissions • 8 online GIS comment submissions • 65 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Jason Jo, Transportation Service Supervisor, City of Carson • Pamela Tang, Torrance Transit • Meighan Langlois, South Bay Service Council • Charles Deemer, South Bay Service Council, Torrance Environmental Quality & Energy Conservation Commission • Ralph L. Franklin, Inglewood City Council • Aaron Baum, South Bay Cities Council of Governments
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Increase to the security presence on the 40 bus and at stops along the route. • 40 bus frequency should be increased. Wait times for buses are long and buses are crowded. • The 232 buses are very outdated compared to other lines. The route can benefit from using larger more updated buses. • The arrival of buses along the 232 is very infrequent. A more predictable and regular schedule is needed. • Create 7-day service for line 625. • Create 7-day service for lines 51 and 52. • More transit connectivity between Central Los Angeles and West Los Angeles. • Increase the security presence in the evenings at bus stops. Wait times are long and people feel unsafe waiting for the bus.



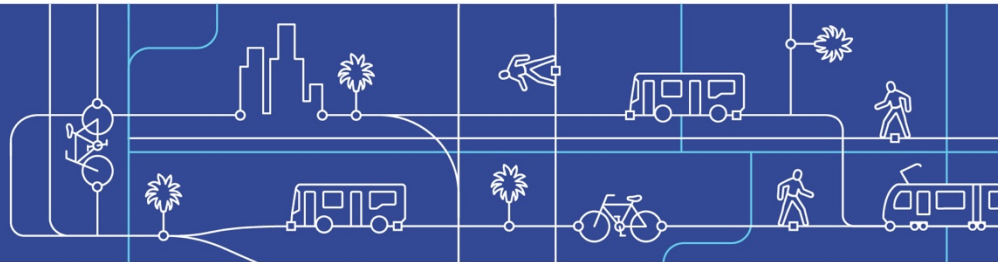
NEXTGEN Bus Study



Van Nuys - Marvin Braude Constituent Center Wednesday, February 6th, 2019	
People Attending	A total of 83 people signed into the workshop <ul style="list-style-type: none"> • 80 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 110 roll-out map comment submissions • 27 comment card submissions • 21 online GIS comment submissions • 158 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Jenny Freese-Daniels, San Fernando Valley Service Council • Dennis Washburn, San Fernando Valley Service Council • David Perry, San Fernando Valley Service Council, Transportation Deputy to Supervisor Kathryn Barger 5th District • Rosalba Gonzalez, San Fernando Valley Service Council • Jess Talamantes, Burbank City Council • Carla Canales, San Fernando Valley Service Council • Miles Orr, City of Los Angeles Department of Planning • Delia Arriaya, City of Los Angeles Department of Planning • Julia Hendelman, City of Los Angeles Department of Planning • Jason Ackerman, Van Nuys Neighborhood City Councilmember • Martin Rosales, Pacoima Beautiful • Mayra Valadez, Field Representative, Office of State Assembly Member Jesse Gabriel 45th District • Sanath Sengupta, Field Representative, Office of State Assembly Member Jesse Gabriel 45th District • Jude Hernandez, Community Outreach, Office of State Assembly Member Luz Rivas 39th District North San Fernando Valley • Robert Gonzalez, San Fernando City Council, San Fernando Valley Service Council



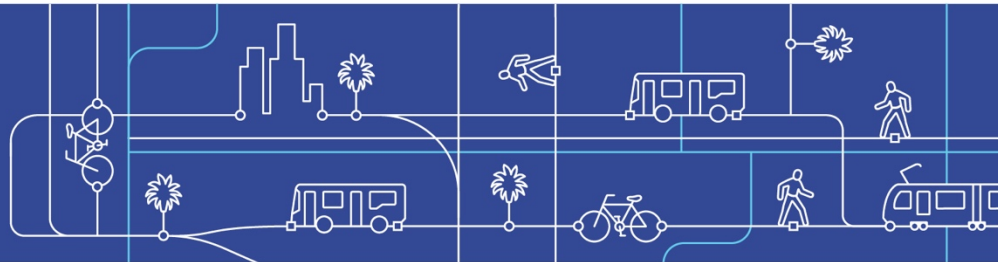
NEXTGEN Bus Study



Wilmington - Providence Wellness & Activity Center Saturday, March 2 nd , 2019	
People Attending	A total of 83 people signed into the workshop <ul style="list-style-type: none"> • 80 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 67 roll-out map comment submissions • 17 comment card submissions • 1 online GIS comment submission • 85 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Danny Hom, South Bay Service Council • Gabriela Cid, Field Representative, Office of Congresswomen Nanette Diaz Barragan 44th District of California • Victor Ibarra, Field Representative, Office of Assembly Member Mike Gipson 64th District • Irais Colin, Best Start Wilmington/Providence
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Service frequency improvements to the 130 and 202 lines are needed through Harbor cities. • The 232 line should run later into the evening or past midnight. • Install more shelters for bus stops. • Metro operators are rude and not helpful on buses. • Increase the number of security officers at bus stops and on the buses. Riders feel unsafe when waiting for the bus.



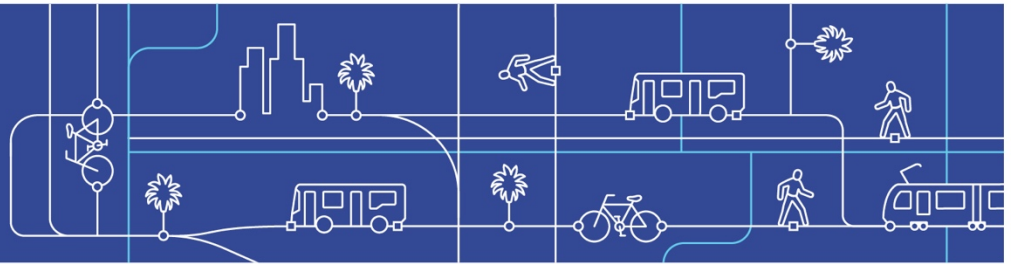
NEXTGEN Bus Study



South Los Angeles (Watts) - St Lawrence Brindisi Church Monday, March 4 th , 2019	
People Attending	A total of 36 people signed into the workshop <ul style="list-style-type: none"> 35 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> 35 roll-out map comment submissions 12 comment card submissions 0 online GIS comment submissions 47 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> Andrew Wang, Los Angeles County Bike Coalition (LACBC) Billy Early, Build Plus Community Maria Mamano, Best Start Wajeha Bilal, Watts Rising Collaborative Guadalupe Zapata, Best Start Watts/Willowbrook Michelle Chambers, Sr Field Representative, Office of State Assemblymember Mike Gipson 64th District of California Leticia Martinez, Best Start Watts/Willowbrook
Media	<ul style="list-style-type: none"> Saul Gonzalez, KCRW
Key Themes	<ul style="list-style-type: none"> Existing service hours throughout Compton/Watts area should be extended later into the evening. Increased service on the weekend. Cleanliness on the buses should be improved. Seats should be cleaned regularly.



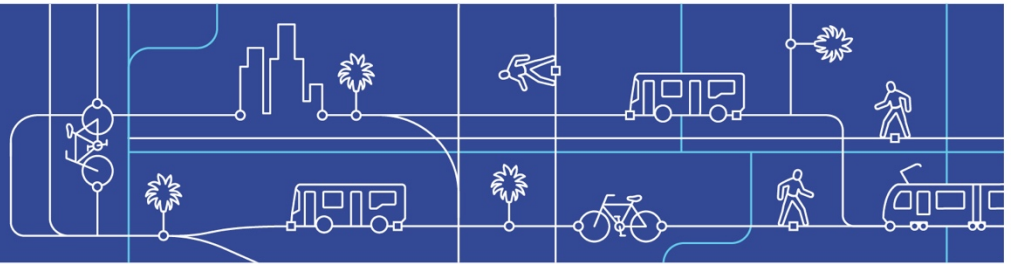
NEXTGEN Bus Study



West Los Angeles - Felicia Mahood Multipurpose Center Tuesday, March 5 th , 2019	
People Attending	<p>A total of 50 people signed into the workshop</p> <ul style="list-style-type: none"> • 47 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 113 roll-out map comment submissions • 16 comment card submissions • 0 online GIS comment submissions • 129 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Mike Bonin, Los Angeles City Council Member, West LA 11th District • Alfredo Torales, Santa Monica Big Blue Bus • Tim McCormick, Santa Monica Big Blue Bus • James Morez, Venice Neighborhood Council • Erin Schneider, Field Deputy, Office of LA County Board Supervisor Sheila Kuehl, 3rd District • Rob Kadota, Mar Vista Community Council • David Graham-Caso, Deputy Chief of Staff, Office of Los Angeles City Council Member Mike Bonin, West LA 11th District • Eric Bruins, Transportation Director, Office of Los Angeles City Council Member Mike Bonin, West LA 11th District
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Reduce the number of police officers on buses. The use of alternative security like security guards and social workers should be promoted. • Provide interactive touchscreen maps for the public to plan trips using the bus and rail. • Create late night bus service running from West LA into Downtown LA. • Improve the service frequency of the 10 and 105 bus lines. • Create Owl service for the 94 and 212 bus lines.

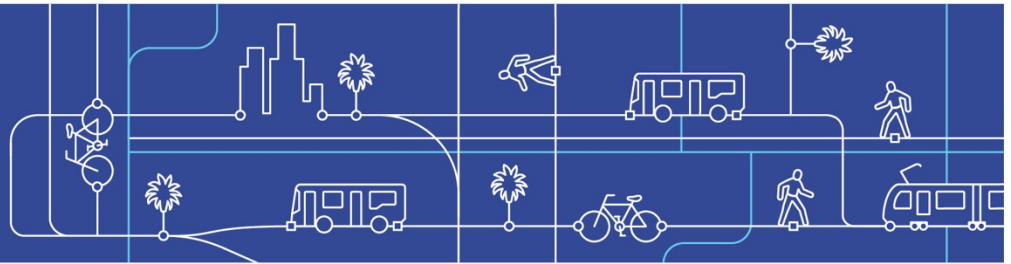


NEXTGEN Bus Study



Compton - Greater Zion Church Family Thursday, March 7th, 2019	
People Attending	A total of 31 people signed into the workshop <ul style="list-style-type: none"> • 29 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 25 roll-out map comment submissions • 13 comment card submissions • 0 online GIS comment submissions • 38 total comments
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Diana Medel, Field Representative, Office of Assembly Member Mike Gibson 64th District • Gustavo Romo, City of Bell
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Improvements to bus stops and stations are needed. Increase the presence of Metro security officers at stops and on buses. • Buses in Compton are very crowded. Service frequency improvements are needed especially during peak hours. • Increase the number of restrooms available to those using public transit. • Greater safety measures are needed to ensure women and children traveling alone are safe. • Increase the frequency of buses branching from Blue and Green rail lines.

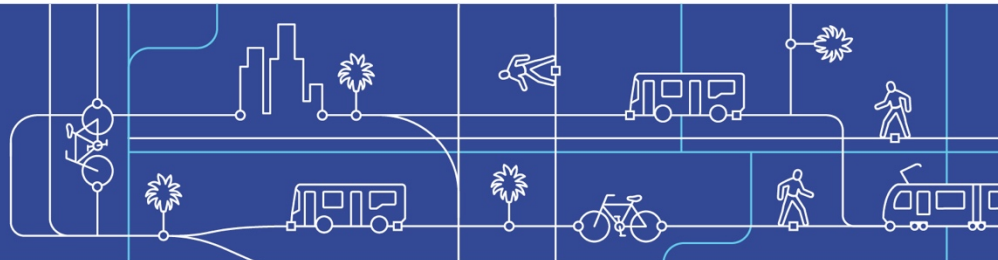
NEXTGEN Bus Study



Calabasas - District Office of Supervisor Sheila Kuehl Tuesday, March 12 th , 2019	
People Attending	A total of 15 people signed into the workshop <ul style="list-style-type: none"> 15 attendees provided a home address and/or email address
Comment Cards	<ul style="list-style-type: none"> 24 roll-out map comment submissions 2 comment card submissions 0 online GIS comment submissions 26 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> Diana Weynand, Climate Reality West Valley Chapter Dennis Washburn, San Fernando Valley Service Council Madeleine Moore, Deputy of Special Projects, Office of LA County Board Supervisor Sheila Kuehl 3rd District Vivian Deutsch, Climate Reality West Valley Chapter Terry Dipple, Executive Direct, Las Virgenes-Malibu Council of Governments Brad Vanderhook, West Hills Neighborhood Council Bill Rose, West Hills Neighborhood Council Charlene Rothstein, West Hills Neighborhood Council Tessa Charnofsky, District Director, Office of LA County Board Supervisor Sheila Kuehl 3rd District
Media	<ul style="list-style-type: none"> N/A
Key Themes	<ul style="list-style-type: none"> Create a limited stop freeway service from Thousand Oaks Transit Center to Universal Red Line station. Begin to implement fully electric buses into the Metro bus fleet. Improve service of the 161 along PCH running into Malibu. Create more weekend and late night service for West Valley lines (161, 165, 152, 166).



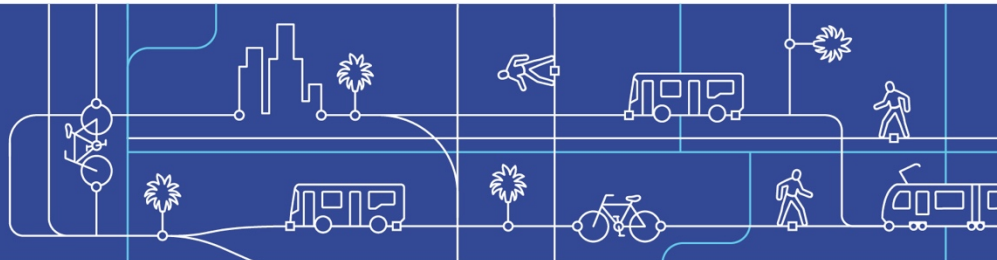
NEXTGEN Bus Study



South West Los Angeles - Holman United Methodist Church Wednesday, March 13th, 2019	
People Attending	A total of 34 people signed into the workshop <ul style="list-style-type: none"> 34 attendees provided a home address and/or email address
Comment Cards	<ul style="list-style-type: none"> 79 roll-out map comment submissions 12 comment card submissions 0 online GIS comment submissions 91 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> Cynthia Langley, Los Angeles Christian Health Centers (LACHC) Kenneth Galbreth, Los Angeles Christian Health Centers (LACHC) L. Kerr, National Association for the Advancement of Colored People (NAACP) Wajeha Bilal, Build Plus Julia Salinas, Transportation Manager, Office of Mayor Eric Garcetti Cesar Montoya, Field Representative, California State Assembly
Media	<ul style="list-style-type: none"> Elizabeth Fuller, Larchmont Buzz
Key Themes	<ul style="list-style-type: none"> Implement the use of larger buses for more frequented lines. Improve the Metro app to include loading fares and improve accuracy of arrival/departure times. Increase the amount of Owl service bus lines in Central Los Angeles. Improve the frequency of the 28 line. Expand weekend service to lines throughout Central Los Angeles.

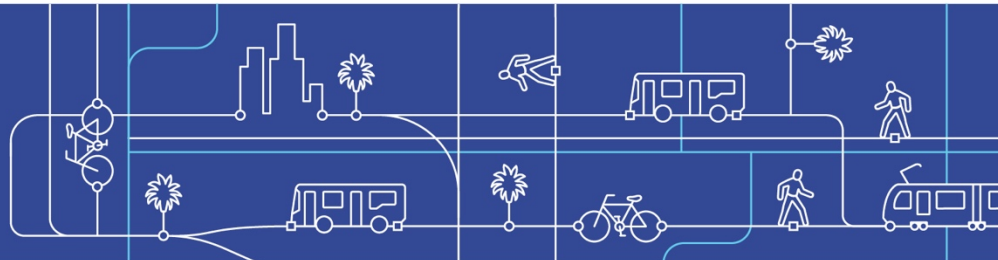


NEXTGEN Bus Study

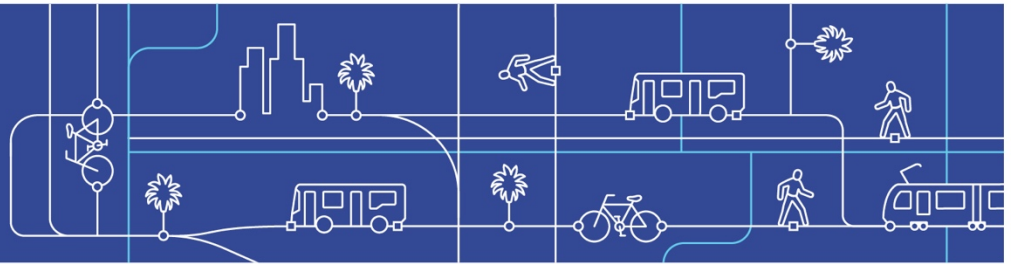


East Los Angeles - East Los Angeles Service Center Tuesday, March 19 th , 2019	
People Attending	A total of 49 people signed into the workshop <ul style="list-style-type: none"> • 45 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> • 120 roll-out map comment submissions • 26 comment card submissions • 0 online GIS comment submissions • 146 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> • Henry Lo, Senior Field Representative, Office of State Assembly Member Ed Chau District 49 • Louis Burns, Access Services • Joseph Martinez, Director of District Operations, Office of LA County Board Supervisor Hilda Solis District 1 • Abigail Marquez, Office of State Assembly Member Ed Chau District 49
Media	<ul style="list-style-type: none"> • N/A
Key Themes	<ul style="list-style-type: none"> • Increase safety for students and children using the bus system. • Increase the number of bus stop shelters. • Include Santa Monica Big Blue Bus and OCTA in accepting the Metro EZ pass. • Increase weekend service of the 780 through Pasadena. • Improve the frequency of the 78 line through East Los Angeles. • Extend the 258 and 260 lines south into Gateway/South Bay cities.

NEXTGEN Bus Study



Malibu - Malibu City Hall, Multipurpose Room Tuesday, April 9th, 2019	
People Attending	A total of 17 people signed into the workshop <ul style="list-style-type: none"> 13 attendees provided home address and/or email address
Comment Cards	<ul style="list-style-type: none"> 13 roll-out map comment submissions 6 comment card submissions 0 online GIS comment submissions 19 total comments submitted
Elected Offices / Key Stakeholders	<ul style="list-style-type: none"> Skylar Peak, Malibu City Council Elizabeth Shavelson, Assistant to the Malibu City Manager Tim Pershing, Senior Field Representative, Office of State Assembly Member Richard Bloom 50th District
Media	<ul style="list-style-type: none"> N/A
Key Themes	<ul style="list-style-type: none"> Improve transit connectivity between Malibu and the San Fernando Valley Collaborate with Ventura County Transportation Commission (VCTC) to increase transit trips between Malibu and Ventura County coastal cities. Implement the use of smaller, full electric buses in the Metro bus fleet. Consider extending the 534 bus through Santa Monica into Westwood and West Los Angeles. Redesign the location of bus stops along PCH to make stops safer for those waiting for buses and passengers exiting.



ATTACHMENTS

Attachment A: Working Group Organizations

Attachment B: Workshop Locations

B.1 Round 1 Workshop Locations

B.2 Round 2 Workshop Locations

Attachment C: Workshop Materials

C.1 Workshop Guide

C.2 Fact Sheet

C.3 FAQ

C.4 Comment Card

Attachment D: Media Toolkits Examples

D.1 Stakeholder Toolkit

D.2 Elected Official Toolkit

Attachment E: Earned Media Table

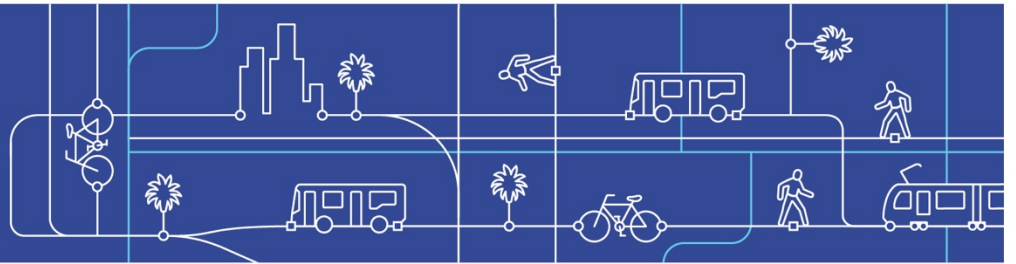
E.1 Round 1 Earned Media

E.2 Round 2 Earned Media

Attachment F: Social Media Examples

F.1 Facebook

F.2 Twitter



Attachment A: Working Group Organizations

Working Group Organizations

#	Category	Sub Category	Organization
1	Advisory Council	Metro Advisory Council	Citizens' Advisory Council (CAC)
2	Business Organizations	Business Development	BizFed
3	Business Organizations	Economic Development	Los Angeles Economic Development Corporation
4	Business Organizations	Tourism	Los Angeles Tourist Visitors & Convention Bureau
5	Chamber of Commerce		Los Angeles Area Chamber of Commerce
6	Community Organizations	Environmental/Social Equity/Low Income Groups	Build Plus Community Marketplace
7	Community Organizations	Bicycle Groups	CicLAvia
8	Community Organizations	Environmental/Social Equity/Low Income Groups	Climate Reality Leadership Corps
9	Community Organizations	Environmental/Social Equity/Low Income Groups	Climate Resolve
10	Community Organizations	Environmental/Social Equity/Low Income Groups	Commission on the Status of Women
11	Community Organizations	Environmental/Social Equity/Low Income Groups	Communities for a Better Environment
12	Community Organizations	Environmental/Social Equity/Low Income Groups	Community Build/Watts Rising Collaborative
13	Community Organizations	Environmental/Social Equity/Low Income Groups	East Yard Communities for Environmental Justice (EYCEJ)
14	Community Organizations	Professional Development	Encounter LA (LATTTC Architecture)
15	Community Organizations	Environmental/Social Justice	Enterprise Community Partners
16	Community Organizations	Environmental/Social Equity/Low Income Groups	Fixing Angelenos Stuck in Traffic (FAST)
17	Community Organizations	Previous EWG Member	Global First Ladies Alliance
18	Community Organizations	Environmental/Social Equity/Low Income Groups	Investing in Place
19	Community Organizations	Environmental/Social Equity/Low Income Groups	LA Voice
20	Community Organizations		LA Walks
21	Community Organizations	Bicycle Groups	Los Angeles County Bicycle Coalition (LACBC)
22	Community Organizations	Environmental/Social Equity/Low Income Groups	Pacoima Beautiful
23	Community Organizations	Environmental/Social Equity/Low Income Groups	SELA Collaborative
24	Community Organizations	Environmental/Social Equity/Low Income Groups	South Los Angeles Transit Empowerment Zone (Slate-Z)
25	Community Organizations	Environmental/Social Equity/Low Income Groups	Trust South LA

#	Category	Sub Category	Organization
26	Community Organizations	Environmental/Social Equity/Low Income Groups	USC Cecil Murray Center
27	Educational Institutions	University	Cal State University System
28	Educational Institutions	University	Cal State University, Northridge
29	Educational Institutions	Community College	Los Angeles Community College District
30	Educational Institutions	County	Los Angeles County Office of Education
31	Educational Institutions	Community College	Los Angeles Trade Technical College
32	Educational Institutions	School District	Los Angeles Unified School District
33	Educational Institutions	Environmental/Social Equity/Low Income Groups University	Cal State LA Pat Brown Institute
34	Educational Institutions	Educational Institutions	University of California, Los Angeles
35	Educational Institutions	University	University of Southern California
36	Educational Institutions	University	USC Program for Environmental and Regional Equity
37	Government Agencies	COG	Arroyo Verdugo Council of Governments
38	Government Agencies	Military and Veterans	Department of Military and Veterans Affairs
39	Government Agencies		Gateway Cities Council of Governments (GCCOG)
40	Government Agencies	Housing	Housing Authority of the City of Los Angeles
41	Government Agencies	Cities	LADCP
42	Government Agencies	COG	Las Virgenes Malibu Council of Governments (LADCP)
43	Government Agencies	COG	Las Virgenes/Malibu Council of Governments
44	Government Agencies	County	Los Angeles Department of City Planning (LADCP)
45	Government Agencies	Homeless Services	Los Angeles Homeless Services Authority
46	Government Agencies	COG	San Fernando Valley Council of Government (SFVCOG)
47	Government Agencies	COG	San Gabriel Valley Council of Governments (SGVCOG)
48	Government Agencies	COG	South Bay Cities Council of Governments
49	Government Agencies	COG	Westside Cities Council of Governments
50	Non-Profit	Seniors	AARP
51	Religious Institutions		Endless Touch Church
52	Religious Institutions		Greater Zion Church Family

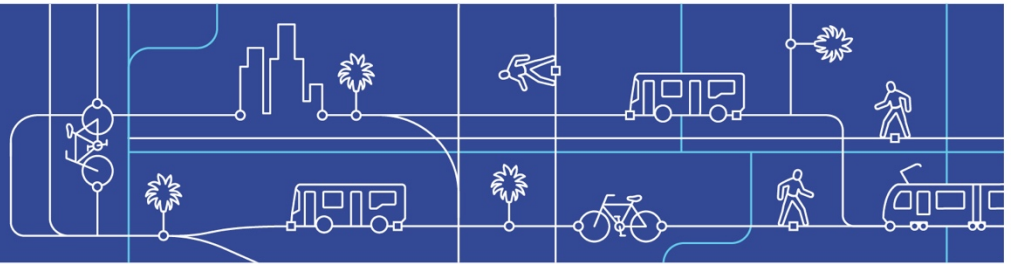
#	Category	Sub Category	Organization
53	Service Council		Gateway Cities Service Council
54	Service Council		San Fernando Valley Service Council
55	Service Council		San Gabriel Valley Service Council
56	Service Council		South Bay Cities Service Council
57	Service Council		Westside/Central Service Council
58	Transportation Agencies	Municipal Operators	Big Blue Bus
59	Transportation Agencies	Municipal Operators	Los Angeles Department of Transportation (LADOT)
60	Transportation Agencies	Rail	South Bay Cities Council of Governments/SCAG
61	Transportation Agencies	Rail	Southern California Regional Rail Authority (Metrolink)
62	Transportation Services and Groups	Paratransit Service Agency	Access Services
63	Transportation Services and Groups	ADA	Accessibility Advisory Committee
64	Transportation Services and Groups	ADA	Aging & Disability Transportation Network
65	Transportation Services and Groups	Advocacy	Association for Commuter Transportation
66	Transportation Services and Groups	Advocacy	Move LA

Round 1 Workshop Locations

Metro NextGen Bus Study Public Workshops - Round 1			
Workshop	Date	Location/ Address	Service Council
Community Workshop- #1	Tues., January 8, 2019 4pm-7pm	Hubert Humphrey Park 12560 Filmore St, Pacoima, CA 91331	San Fernando Valley
Community Workshop- #2	Wed., January 9, 2019 4pm-7pm	Plummer Park 7377 Santa Monica Blvd, West Hollywood, CA 90046	Westside/ Central
Community Workshop- #3	Sat., January 12, 2019 9am-12pm	Bell Community Center 6250 Pine Ave, Bell Gardens, CA 90201	Gateway Cities
Community Workshop- #4	Wed., January 16, 2019 4pm-7pm	Asian Youth Center 100 Clary Ave, San Gabriel, CA 91776	San Gabriel
Community Workshop- #5	Thurs., January 17, 2019 5:30pm-8:30pm	El Camino Community College 16007 Crenshaw Blvd, Torrance, CA 90506	South Bay
Community Workshop- #6	Wed., January 23, 2019 4pm-7pm	Dollarhide Community Center 301 N Tamarind Ave, Compton, CA 90220	Gateway Cities
Community Workshop- #7	Thurs., January 24, 2019 4pm-7pm	Pasadena Senior Center 85 E Holly St, Pasadena, CA 91103	San Gabriel
Community Workshop- #8	Sat., January 26, 2019 9am-12pm	Los Angeles Trade-Tech College 400 W Washington Blvd, Los Angeles, CA 90015	Westside/ Central
Community Workshop- #9	Thurs., January 31, 2019 4pm-7pm	Inglewood City Hall One Manchester Blvd, Inglewood, CA 90301	South Bay
Community Workshop- #10	Wed., February 6, 2019 4pm-7pm	Marvin Braude Constituent Center 6262 Van Nuys Blvd, Van Nuys, CA 91401	San Fernando Valley

Round 2 Workshop Locations

Metro NextGen Bus Study Public Workshops - Round 2			
Workshop	Date	Location/ Address	Service Council
Community Workshop- #1	Thurs., February 28, 2019 12:30pm-3:30pm	Independent Living Center of Southern California 14151 Haynes St, Van Nuys, CA 91401	San Fernando Valley
Community Workshop- #2	Sat., March 2, 2019 10am-1pm	Providence Wellness and Activity Center (MPR) 470 Hawaiian Av, Wilmington, CA 90744	South Bay
Community Workshop- #3	Mon., March 4, 2019 4pm-7pm	St. Lawrence Brindisi Church 10122 Compton Av, Los Angeles, CA 90002	South Bay
Community Workshop- #4	Tues., March 5, 2019 4pm-7pm	Felicia Mahood Senior Multipurpose Center 11338 Santa Monica Bl, Los Angeles, CA 90025	Westside/Central
Community Workshop- #5	Thurs., March 7, 2019 4pm-7pm	Greater Zion Church Family 2408 N Wilmington Av, Compton, CA 90222	Gateway Cities
Community Workshop- #6	Tues., March 12, 2019 4pm-7pm	Supervisor Sheila Kuehl's District Office, Community Room 26600 Agoura Rd, Calabasas, CA 91302	San Fernando Valley
Community Workshop- #7	Wed., March 13, 2019 4pm-7pm	Holman United Methodist Church 3320 W Adams Bl, Los Angeles, CA 90018	Westside/Central
Community Workshop- #8	Tues., March 19, 2019 4pm-7pm	East Los Angeles Service Center 133 N Sunol Dr Los Angeles, CA 90063	San Gabriel valley
Community Workshop- #9	Tues., April 9, 2019 6pm-7:30pm	Malibu City Hall, Multipurpose Room 23825 Stuart Ranch Rd. Malibu, CA 90265	Westside/Central
Community Workshop- #10	Tues., April 16, 2019 12:30pm-2:30pm	Communities Actively Living Independent & Free 634 South Spring Street Los Angeles, CA 90014	Westside/Central



Attachment C: Workshop Materials

C.1

Workshop Guide

C.2

Fact Sheet

C.3

FAQ

C.4

Comment Card

NEXTGEN Bus Study

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Welcome Public Workshop

Winter 2019



Station Summaries

Station 1 - Project Purpose

Through the NextGen Bus Study, Metro is designing a modern, more useful bus network that better fits the needs of today's rider.

Station 2 - What We've Heard

We're gathering input from stakeholders across LA County. To date, this feedback has resulted in the following recurring themes to be addressed by the NextGen Bus Study:

TO BE ADDRESSED BY NEXTGEN:

- > Equity
- > Customer Experience
- > Accessibility
- > Connectivity
- > Schedule
- > Engagement

TO BE ADDRESSED BY OTHER METRO INITIATIVES:

- > Operator Issues
- > Education
- > Safety and Security
- > Technology
- > Fares

Station 3 - What We've Learned Through Data

We've studied travel patterns and preferences of more than 5 million people in LA County and we've learned where transit is already successful and where we need to improve and rethink service.

Station 4 - Service Redesign Considerations

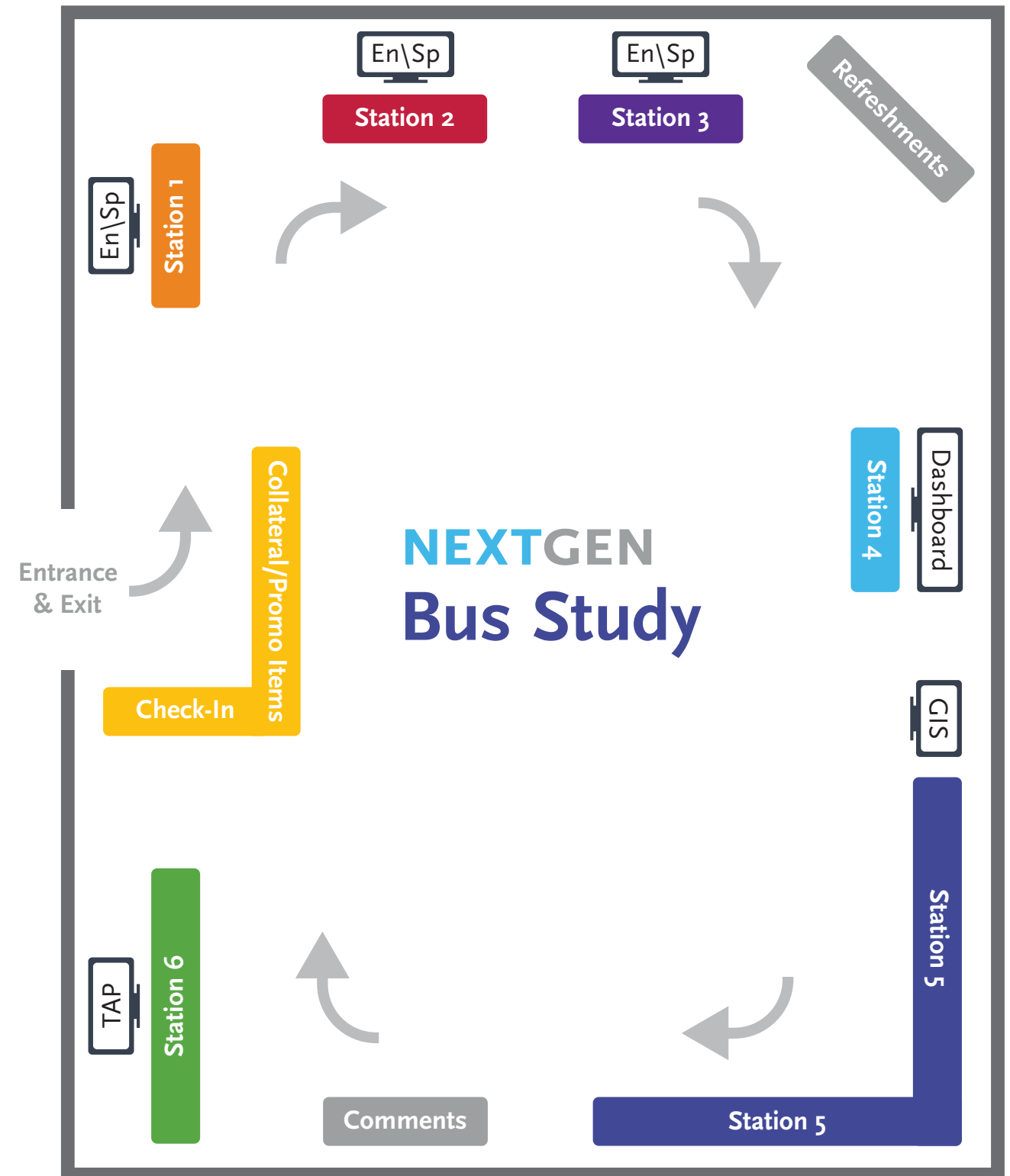
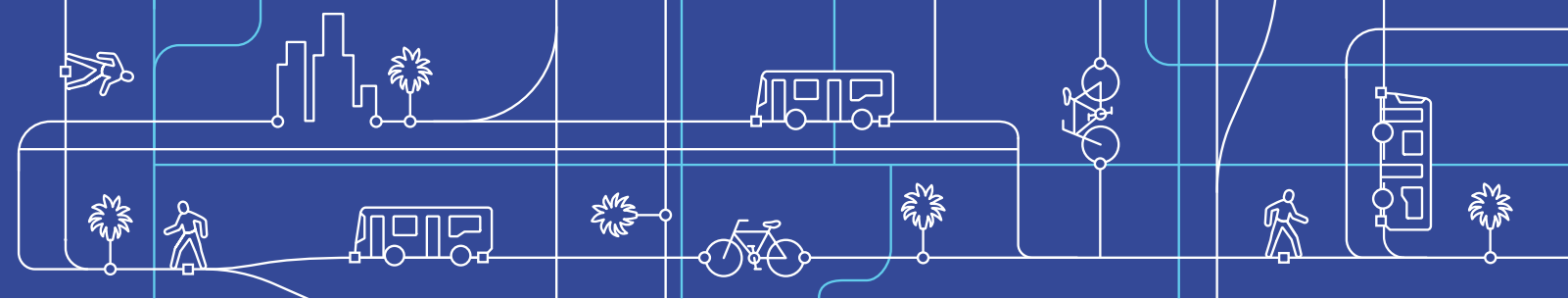
We're reviewing many considerations in evaluating the bus service. These include which areas perform the strongest, where more service is needed, where riders want/need to go, and how much service is needed for each corridor, and more.

Station 5 - Interactive Mapping and Public Comments

Public participation throughout LA County is critical to the success of this study. Interactive maps will gather valuable input and information from you to help us shape the new Bus Service Plan.

Station 6 - Metro Departments and Other Initiatives

Metro representatives from various departments will be on hand to answer questions and discuss other initiatives that will integrate with the NextGen Bus Study.



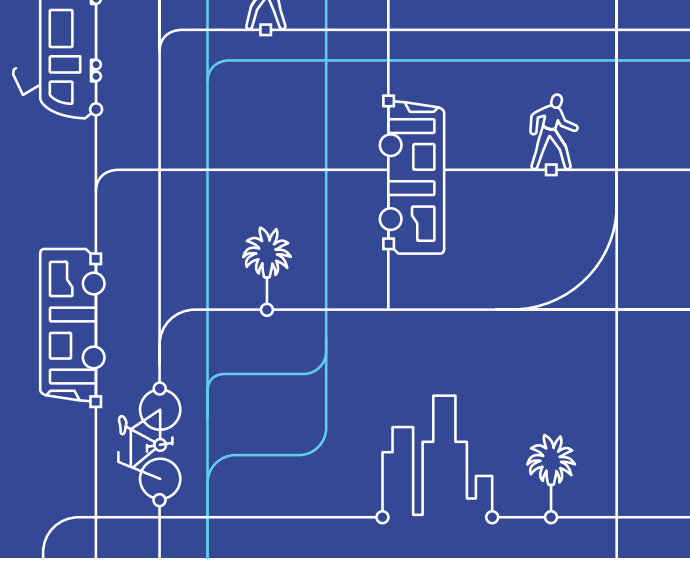
*En = English, Sp = Spanish

NEXTGEN Bus Study

Fact Sheet - Winter 2019

Every day, we hear your comments about how Metro's buses can better serve you.

We've listened. We've heard you. We've taken action.



So, what is NextGen?

In 2018 Metro began the process to reimagine and restructure our bus system to better meet the needs of past, current and future riders. The goal of the NextGen Bus Study is to design a new bus network that is more relevant, reflective of, and attractive to the residents of LA County. We believe this redesigned network will improve service to current customers, attract new customers and win back past customers.

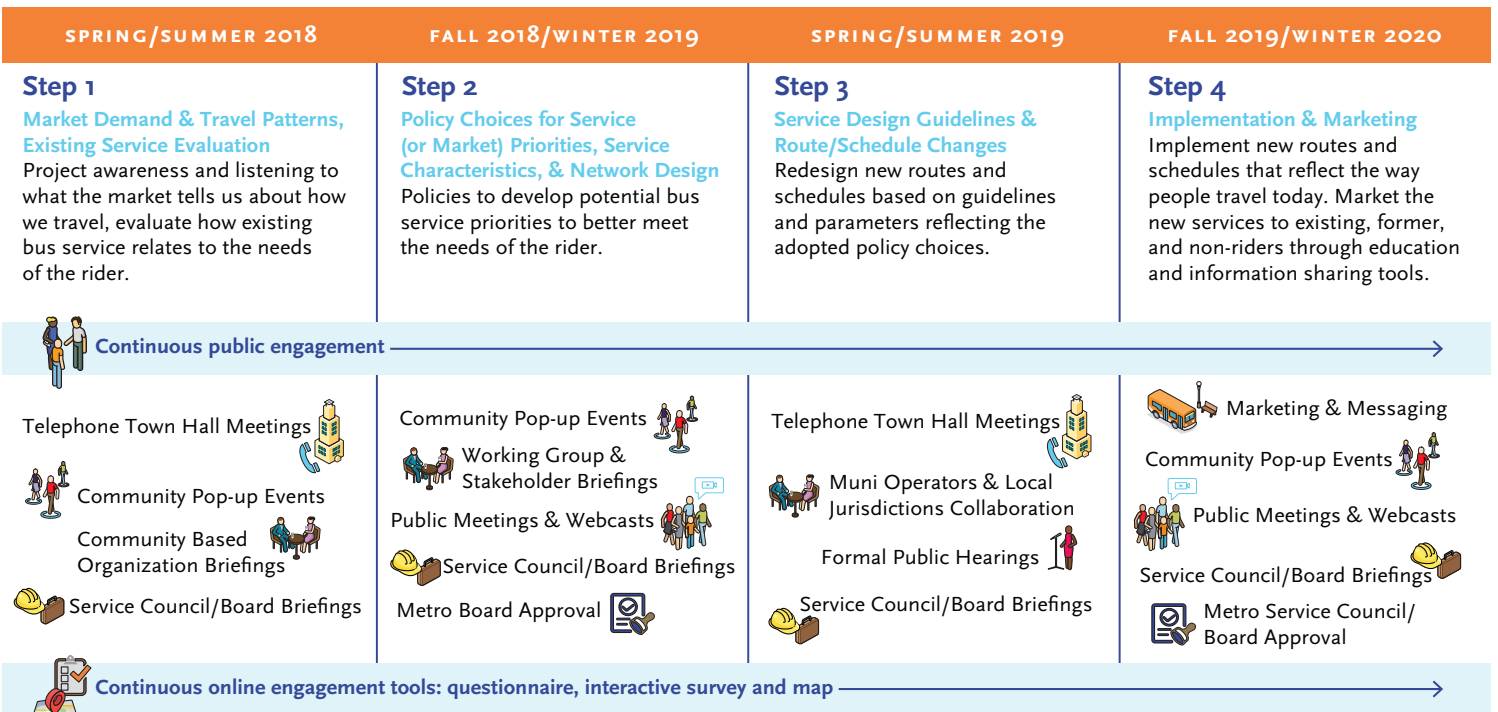
Why is Metro doing this?

Simply put, the bus network in LA County carries over 70% of Metro customers but has not had a major overhaul in 25 years. Since that time, our county has evolved dramatically. Over a million residents have been added, transforming many local

communities with new travel patterns. The Metro Rail system was just beginning 25 years ago, but now LA County has 105 miles of service and service will continue to grow steadily over the next 25 years. In addition, with new transportation options like ride hailing apps and bike share, it is important that our bus system integrates with all the ways Angelinos travel today, with flexibility built in for the future.

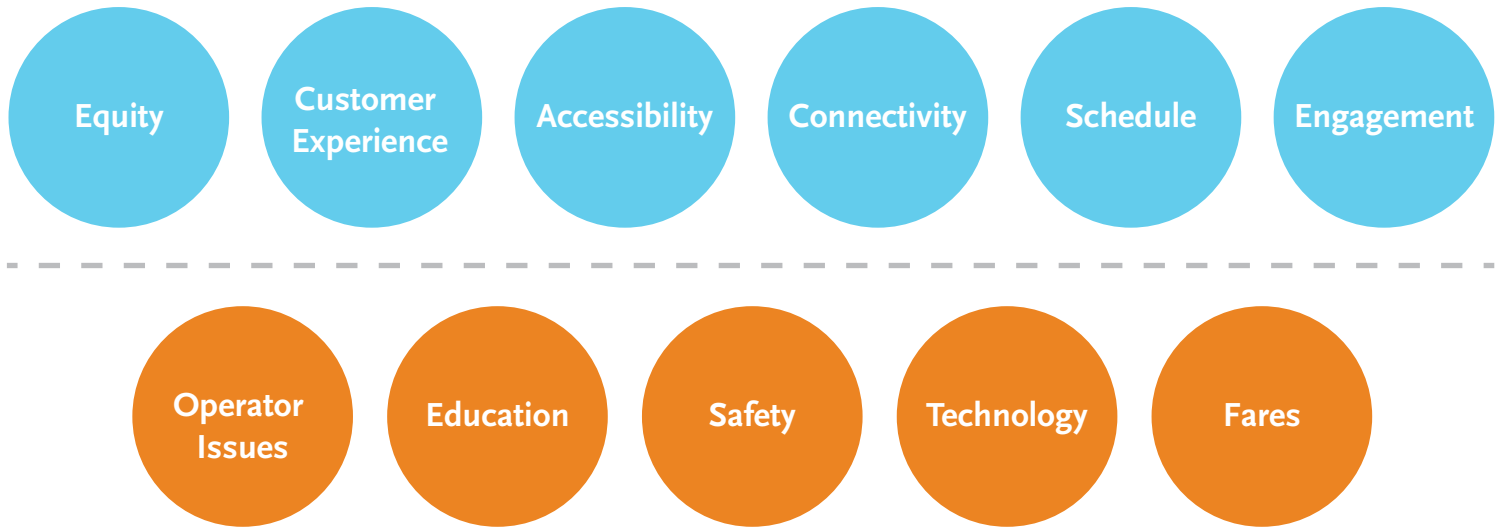
What is the timeline?

The NextGen Bus Study began in spring 2018 with a new bus service plan scheduled for rollout as early as December 2019. The NextGen Bus Study consists of four steps. At each step, the public will be encouraged to actively participate. We are currently in step 2 and Metro is working on processing all of the robust input received to date to prepare the draft service concepts.



What We've Heard

Metro is gathering input from stakeholders across LA County. To date, we have identified the following recurring themes as a result of this input.



● To be addressed by **NEXTGEN** ● To be addressed by other Metro initiatives

How can you participate?

This is all about you. So, we need you as our partner. Public engagement is critical to the success of the NextGen Bus Study and every step of the process will include several opportunities for public input. Here are some of the current and upcoming opportunities:

- > Attend any of the 10 public workshops being held throughout the county between January 8 and February 6, 2019 - visit metro.net/nextgen to find a location in your Service Council area
- > Email your thoughts or request a presentation for your organization or event by contacting Robert Cáliz at nextgen@metro.net
- > Check the project website regularly or sign-up for our mailing list at metro.net/nextgen

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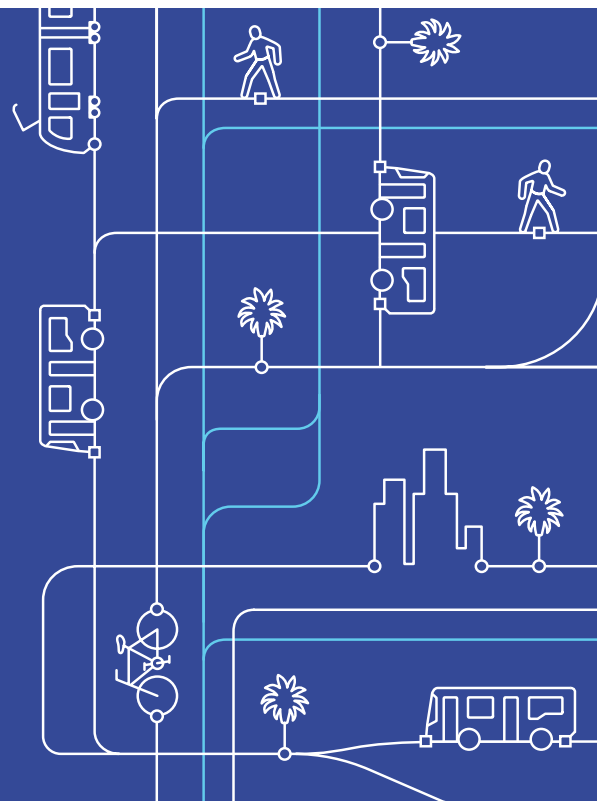
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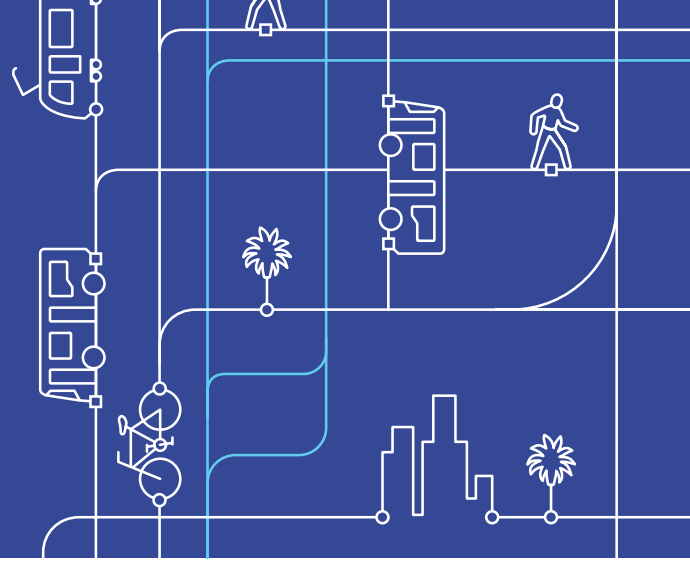


Metro[®]



NEXTGEN Bus Study

Frequently Asked Questions (FAQ) Winter 2019



OVERVIEW

1) What is the NextGen Bus Study?

Metro has set out to design a new bus network that is more relevant, reflective of, and attractive to the residents of LA County. We believe this redesigned network will improve service to current riders, attract a new generation of users and win back past customers. The NextGen Bus Study consists of four steps. At each stage, the public will be encouraged to actively participate and provide informative and valuable input.

2) Why is Metro doing this now?

Simply put, the bus network in LA County carries over 70% of Metro customers but has not had a major overhaul in 25 years. Since that time, our county has evolved dramatically. Over a million residents have been added, transforming many local communities with new travel patterns. The Metro Rail system was just beginning 25 years ago, but now LA County has 105 miles of service and service will continue to grow steadily over the next 25 years. In addition, with new transportation options like ride hailing apps and bike share, it is important that our bus system integrates with all the ways Angelinos travel today, with flexibility built in for the future.

3) What is the timeline for the NextGen Bus Study?

The NextGen Bus Study began in Spring 2018 with a new Bus Service Plan anticipated for rollout as early as December 2019.

4) Will the NextGen Bus Study result in minor adjustments to the current bus network or truly redesign the system with a “clean slate approach”?

The goal of the NextGen Bus Study is to create an attractive and competitive world-class bus system. To achieve this goal, all aspects of Metro bus service are on the table for study, including speed, distance, frequency, time of day, reliability as well as quality of service and safety. Some of the most heavily traveled lines, e.g. Vermont Ave., Western Ave., Ventura Blvd., may not see major changes, but may be modified to provide better connections to other routes and services. Public input along with the technical evaluation of travel data will inform the extent of the changes.

PLANNING AND PUBLIC FEEDBACK

5) How will the NextGen Bus Study be integrated with Metro’s other studies and projects?

Metro will account for long and short-term transit projects and studies that involve or impact the NextGen Bus Study and its resulting Bus Service Plan. Among the projects being considered are the Metro Bus Rapid Transit (BRT) Vision and Principles Study, Metro Rail/BRT Capital Projects, Metro Long Range Transportation Plan, and the Metro MicroTransit Pilot Project and Mobility on Demand Grant Program.

6) Will bus service provided by the LA County municipal transit operators also be included in the NextGen Bus Study?

Through the NextGen Bus Study, we are taking a holistic approach to the LA County bus system that does not look at Metro alone but instead leverages all resources, including municipal operators.

7) At this point in the NextGen Bus Study what type of feedback has been received?

In an effort to gain public input Metro has participated in public outreach activities including the distribution of surveys and attendance at over 170 meetings and events. Metro has received input from the public and stakeholders, including responses from over 12,000 survey participants. To date, this feedback has resulted in the following recurring themes to be addressed by the NextGen Study: equity, customer experience, connectivity, engagement, accessibility and schedules. Additional input received focuses on operator issues, education, safety, technology and fares. While these issues will not be specifically addressed by the NextGen Bus Study, comments related to these topics will be shared with the appropriate internal departments for consideration.

8) Will the NextGen Bus Study consider the unique needs and desires of my community?

One of the goals of the NextGen Bus Study is to receive input from stakeholders throughout LA County. Public participation will help ensure that the NextGen Bus Service Plan considers each community's needs and character.

FUNDING/RESOURCES

9) Will the NextGen Bus Service Plan be constrained to the current level of service hours?

The initial assumption of the NextGen Bus Study is to develop a service plan within the range of 7 million service hours, plus or minus 10 percent (6.3 million to 7.7 million hours). However, this does not preclude Metro from developing a service plan that exceeds this range should the benefits justify any tradeoffs to other Metro projects and programs.

10) How will fares be affected?

Fares are not being considered as part of this effort.

11) Will there be further opportunities for public input on the NextGen Bus Study?

Yes. Public engagement is critical to the success of the NextGen Bus Study and Metro is actively soliciting input. Here are some of the current and upcoming opportunities:

- > Attend any of the 10 public workshops being held throughout the county between January 8 and February 6, 2019 - visit metro.net/nextgen to find a location near you
- > Email your thoughts or request a presentation for your organization or event by contacting Robert Cáliz at nextgen@metro.net
- > Check the project website regularly or sign-up for our mailing list at metro.net/nextgen

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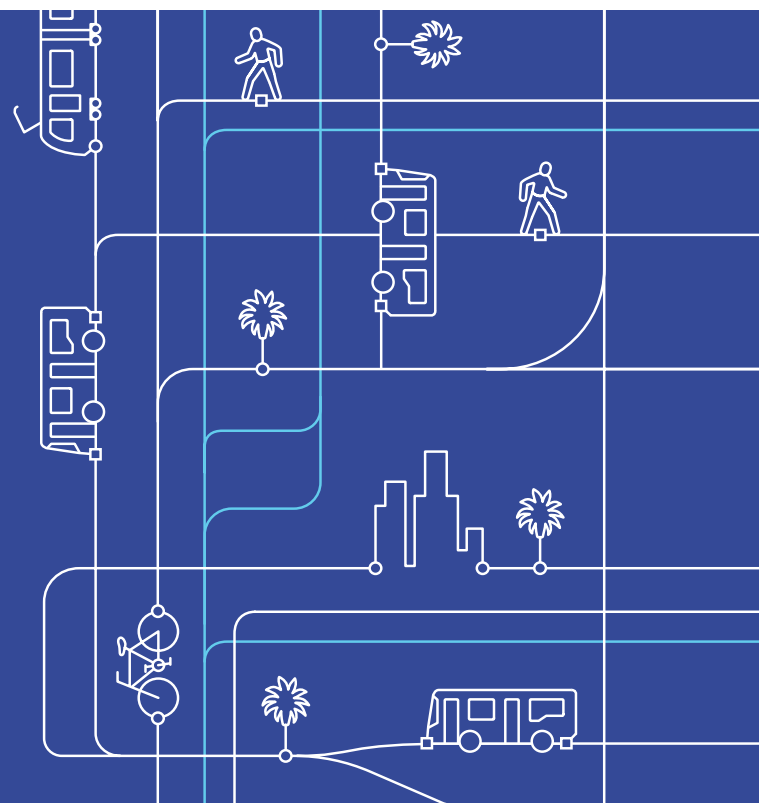
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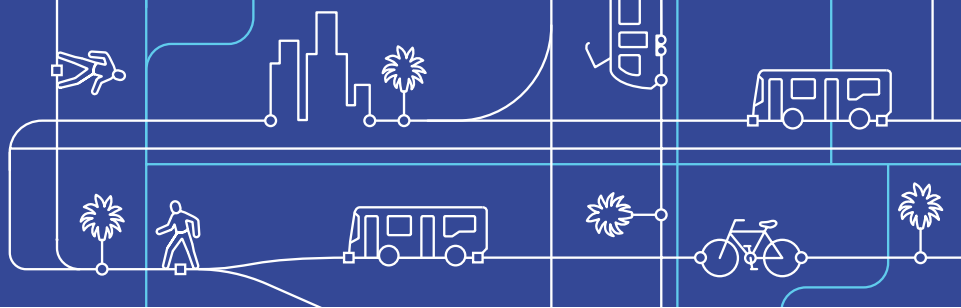
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Metro®



NEXTGEN Bus Study



COMMENT CARD (OPTIONAL INFORMATION)

NAME:		DATE:
AGE: <input type="checkbox"/> Under 18 <input type="checkbox"/> 18-24 <input type="checkbox"/> 25-34 <input type="checkbox"/> 35-49 <input type="checkbox"/> 50-64 <input type="checkbox"/> 65 or older		GENDER: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Non-binary
AFFILIATION:		PHONE:
ADDRESS:		EMAIL:
CITY:	STATE:	ZIP:

PLEASE SPECIFY WHICH MEETING YOU ARE ATTENDING:

- | | | |
|--|---|---|
| <input type="checkbox"/> Tuesday, January 8, 2019 - Pacoima | <input type="checkbox"/> Thursday, January 17, 2019 - Torrance | <input type="checkbox"/> Thursday, January 31, 2019 - Inglewood |
| <input type="checkbox"/> Wednesday, January 9, 2019 - West Hollywood | <input type="checkbox"/> Wednesday, January 23, 2019 - Compton | <input type="checkbox"/> Wednesday, February 6, 2019 - Van Nuys |
| <input type="checkbox"/> Saturday, January 12, 2019 - Bell | <input type="checkbox"/> Thursday, January 24, 2019 - Pasadena | |
| <input type="checkbox"/> Wednesday, January 16, 2019 - San Gabriel | <input type="checkbox"/> Saturday, January 26, 2019 - Los Angeles | |

PLEASE SPECIFY WHICH OPERATIONAL TOOLS YOU PREFER FOR EACH TRANSIT MARKET: (CHECK UP TO 3 MAXIMUM)

HIGH TRAVEL: URBAN

Example: Downtown LA

- More peak hour frequency
- More midday frequency
- More evening service
- More weekend service
- More geographic coverage
- More reliable service
- Better real-time bus arrival information

MEDIUM TRAVEL: URBAN/SUBURBAN

Example: Pasadena/West Hills

- More peak hour frequency
- More midday frequency
- More evening service
- More weekend service
- More geographic coverage
- More reliable service
- Better real-time bus arrival information

LOW TRAVEL: SUBURBAN

Example: Rancho Palos Verdes

- More peak hour frequency
- More midday frequency
- More evening service
- More weekend service
- More geographic coverage
- More reliable service
- Better real-time bus arrival information

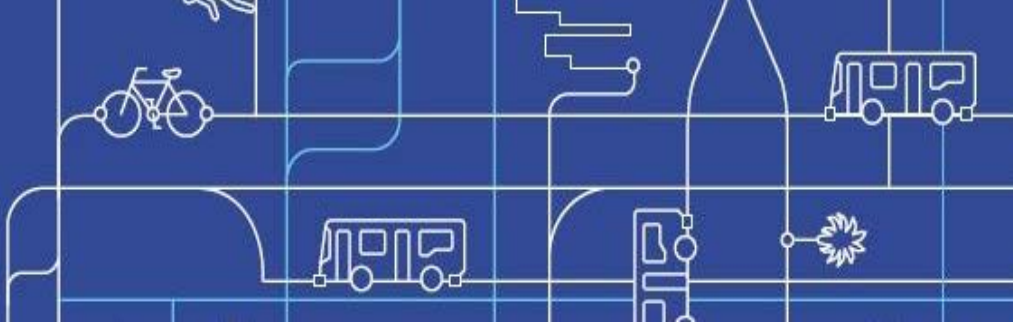
ADDITIONAL COMMENTS:

Fold Here

Place
Stamp
Here

**Metro NextGen Bus Study
c/o Arellano Associates
5851 Pine Avenue, Suite A
Chino Hills, CA 91709**

NEXTGEN Bus Study



Dear Stakeholder,

The purpose of this electronic toolkit is to provide you with notification materials to assure that your community is aware about this initiative and has the opportunity to provide input regarding the redesign of Metro's bus system. The copy-ready text allows you to easily share information that can be utilized with the online platform of your choice. Below are some of the ways that you can help us spread the word about the upcoming series of public workshops.

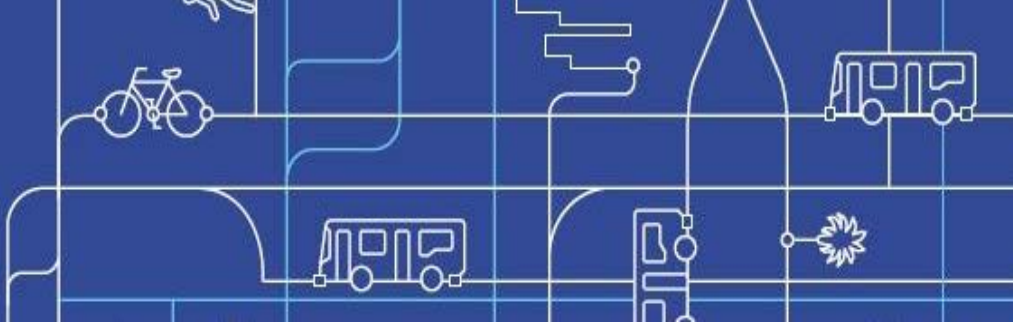
1. **Distribute electronically via email:** share any of the included graphics and content with your email contacts.
2. **Post to your website:** you can use any of the images provided to post to your homepage. Link the image to the online workshop notice.
3. **Feature the workshop dates and details on your events calendar:** promote the upcoming workshop dates in your region on your online events calendar (if applicable) and make announcements at your meetings or other special events.
4. **Social media posting/sharing:** use the provided image of your choice on your social media profiles (Facebook, Twitter, Instagram) and share the link on your post.
5. **Workshop Notice:** share the workshop notices we will be sending you by placing it on your front counters, message boards, and other publicly accessible areas. Let us know if you need additional notices.
6. **Events:** let us know if there are any upcoming events where the team can make an announcement to share the workshop dates and distribute workshop notices.

Thank you in advance for your assistance in getting the word out for the NextGen Bus Study public workshops. If you have any questions, please contact me directly at 213-922-5644 or CalixR@metro.net.

Sincerely,

Robert Calix
Senior Manager
Los Angeles County Metropolitan Transportation Authority

NEXTGEN Bus Study



Eblast:

– Text:

Subject: Join us at a Workshop Jan 8 to Feb 6, 2019, and Receive a Free TAP card

Come to any public workshop between January 8 and February 6, 2019, to help us redesign the bus system. You'll meet with Metro staff, learn about the study and share your thoughts on how to improve LA's bus system. We want your thoughts on bus routes, frequencies, day and times of operation. Stop in anytime during the workshop hours.

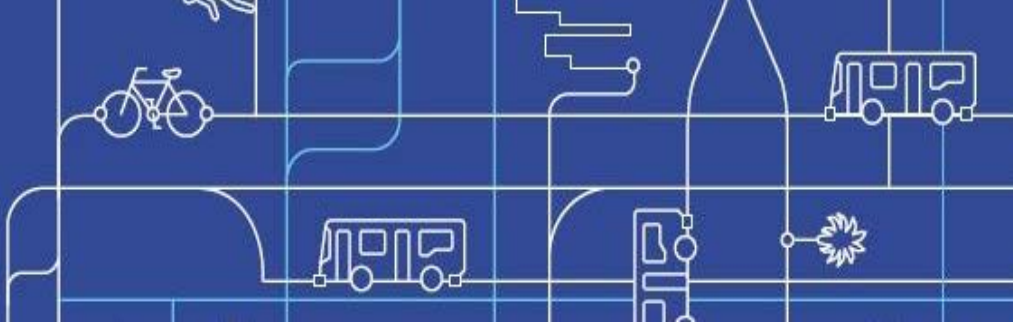
*Everyone will receive a free TAP card, while supplies last. We'll also be raffling additional Metro transit passes.

For more information, visit metro.net/projects/nextgen/upcoming-meetings or view the [workshop notice](#) to find a location near you.

Link the Metro NextGen Bus Study image to the following link:
<https://tinyurl.com/NGWNotice>



NEXTGEN Bus Study



Website:

– Text:

Help Metro design our new bus system, and get a free TAP card*, you might even win a transit pass! Come to any NextGen public workshop between January 8 and February 6, 2019, to help us redesign the bus system. You'll meet with Metro staff, learn about the study and share your thoughts on how to improve LA's bus system. We want your thoughts on bus routes, frequencies, day and times of operation. Stop in anytime during the workshop hours.

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For more information, visit metro.net/projects/nextgen/upcoming-meetings or view the [workshop notice](#) to find a location near you.

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metro.net/nextgen

Help us make the bus system better.

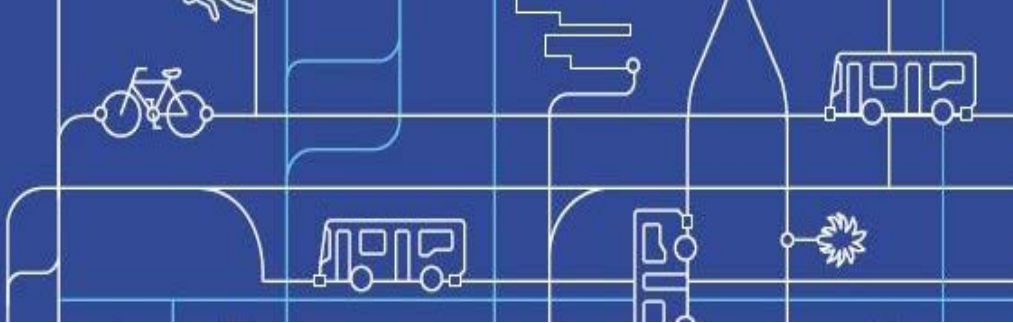
Public Workshops - Jan 8 to Feb 6, 2019

Join us at a workshop to receive a free TAP card, while supplies last. We'll also be raffling off additional Metro transit passes.

M Metro **NEXTGEN Bus Study**

The graphic features a blue background with a white grid pattern. Various icons representing transit elements like a bicycle, bus, train, and person are scattered across the grid. The text is in white and light blue, providing clear information about the public workshops.

NEXTGEN Bus Study



Facebook:

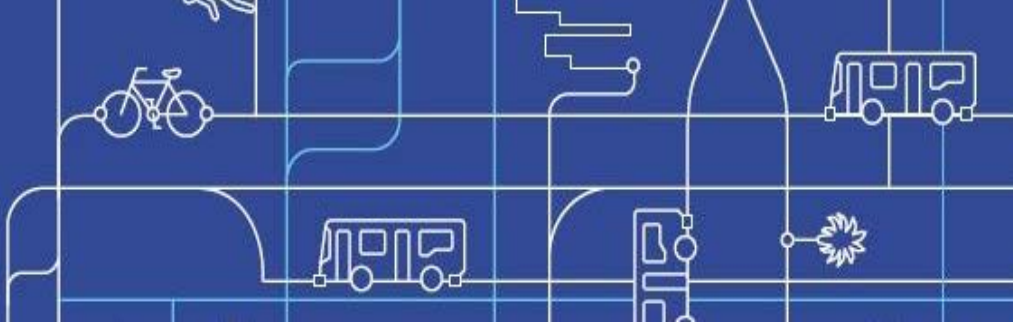
– Text:

Join @losangelesmetro at any of our 10 public workshops and receive a free TAP card, while supplies last! Visit metro.net/projects/nextgen/upcoming-meetings for more information and to find a location near you!

Link the Metro NextGen Bus Study image to the following: <https://tinyurl.com/NGWNotice>



NEXTGEN Bus Study



Twitter:

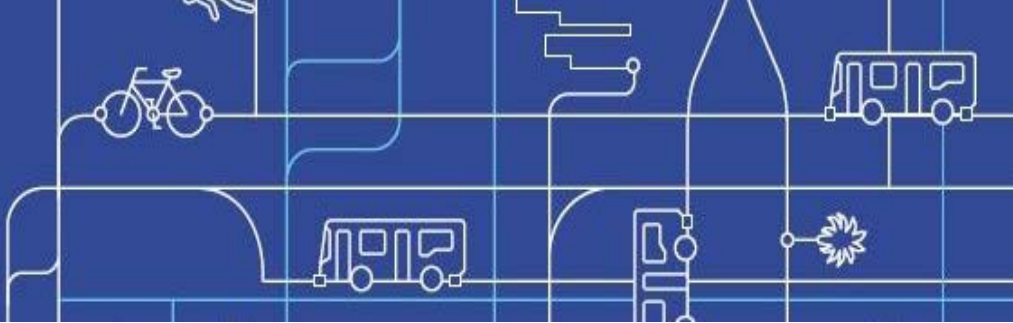
– Text:

Join @metrolosangeles at any of our 10 public workshops and receive a free TAP card, while supplies last! More info at metro.net/projects/nextgen/upcoming-meetings

Link the Metro NextGen Bus Study image to the following: <https://tinyurl.com/NGWNotice>



NEXTGEN Bus Study



Dear Honorable Representative,

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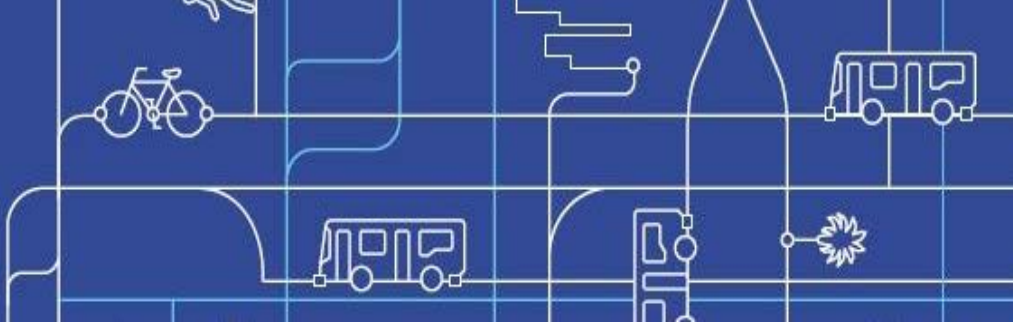
1. **Distribute electronically via email:** share any of the included graphics and content with your email contacts.
2. **Post to your website:** you can use any of the images provided to post to your homepage. Link the image to the online workshop notice.
3. **Feature the workshop dates and details on your events calendar:** promote the upcoming workshop dates in your region on your online events calendar (if applicable) and make announcements at your meetings or other special events.
4. **Social media posting/sharing:** use the provided image of your choice on your social media profiles (Facebook, Twitter, Instagram) and share the link on your post.
5. **Events:** let us know if there are any upcoming events where the team can make an announcement to share the workshop dates and distribute workshop notices.

Thank you in advance for your assistance in getting the word out for the NextGen Bus Study public workshops. If you have any questions, please contact me directly at 213-922-5644 or CalixR@metro.net.

Sincerely,

Robert Calix
Senior Manager
Los Angeles County Metropolitan Transportation Authority

NEXTGEN Bus Study



Eblast:

– Text:

Subject: Join us at a Workshop Jan 8 to Feb 6, 2019, and Receive a Free TAP Card

Come to any public workshop between January 8 and February 6, 2019, to help us redesign the bus system. You'll meet with Metro staff, learn about the study and share your thoughts on how to improve LA's bus system. We want your thoughts on bus routes, frequencies, day and times of operation. Stop in anytime during the workshop hours.

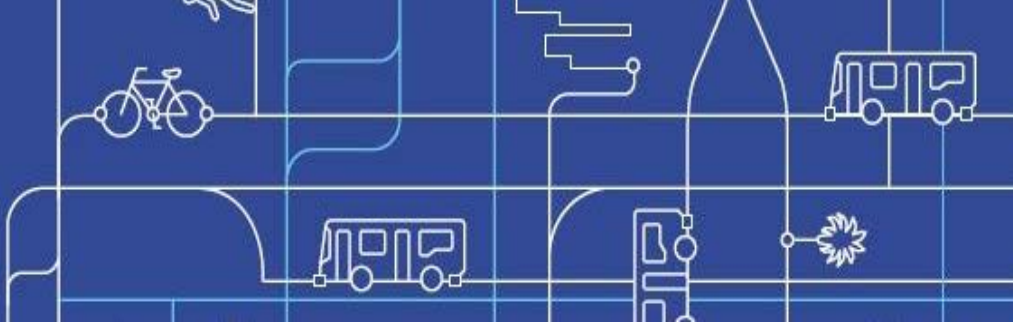
*Everyone will receive a free TAP card, while supplies last. We'll also be raffling additional Metro transit passes.

For more information, visit metro.net/projects/nextgen/upcoming-meetings or view the [workshop notice](#) to find a location near you.

Link the Metro NextGen Bus Study image to the following link:
<https://tinyurl.com/NGWNotice>



NEXTGEN Bus Study



Website:

– Text:

Help Metro design our new bus system, and get a free TAP card*, you might even win a transit pass! Come to any NextGen public workshop between January 8 and February 6, 2019, to help us redesign the bus system. You'll meet with Metro staff, learn about the study and share your thoughts on how to improve LA's bus system. We want your thoughts on bus routes, frequencies, day and times of operation. Stop in anytime during the workshop hours.

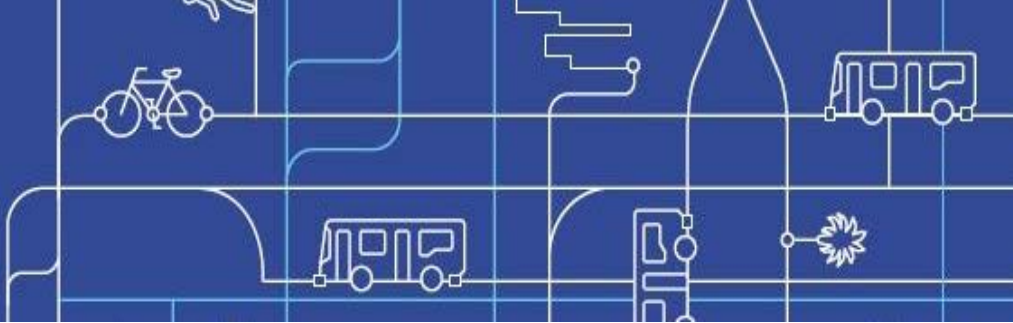
*Everyone will receive a free TAP card, while supplies last. We'll also be raffling additional Metro transit passes.

For more information, visit metro.net/projects/nextgen/upcoming-meetings or view the [workshop notice](#) to find a location near you.

Link the Metro NextGen Bus Study image to the following link: <https://tinyurl.com/NGWNotice>



NEXTGEN Bus Study



Facebook:

– *Text:*

Join @losangelesmetro at any of our 10 public workshops and receive a free TAP card, while supplies last! Visit metro.net/projects/nextgen/upcoming-meetings for more information and to find a location near you!

Link the Metro NextGen Bus Study image to the following: <https://tinyurl.com/NGWNotice>

metro.net/nextgen

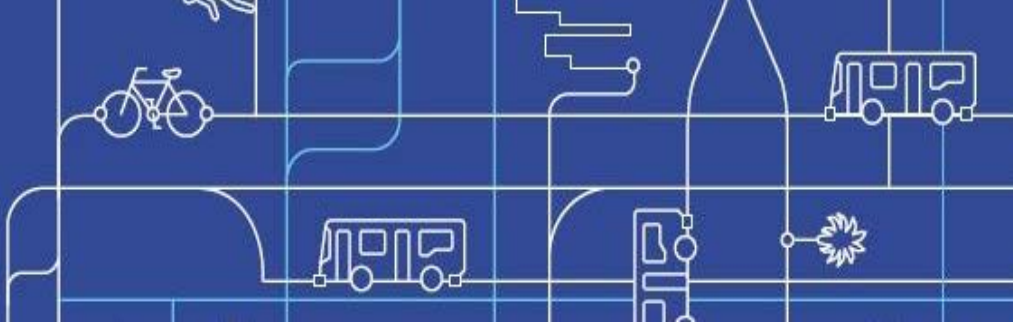
Help us make the bus system better.

Public Workshops - Jan 8 to Feb 6, 2019

Join us at a workshop to receive a free TAP card, while supplies last. We'll also be raffling off additional Metro transit passes.

M Metro **NEXTGEN Bus Study**

NEXTGEN Bus Study



Twitter:

– Text:

Join @metrolosangeles at any of our 10 public workshops and receive a free TAP card, while supplies last! More info at metro.net/projects/nextgen/upcoming-meetings

Link the Metro NextGen Bus Study image to the following: <https://tinyurl.com/NGWNotice>

metro.net/nextgen

Help us make the bus system better.

Public Workshops - Jan 8 to Feb 6, 2019

Join us at a workshop to receive a free TAP card, while supplies last. We'll also be raffling off additional Metro transit passes.

M Metro **NEXTGEN** Bus Study

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1095749516068864003	2/13/2019	Link included in post announcing second round of meetings.
Facebook	LA Metro	Transit Agency	https://www.facebook.com/losangelesmetro/?tn=%2C&cp=R&eid=ARBFo7_YhLZ_g5WzmBl-CZO8SU3wHi-251nBsu6z48QUpFTI_GNSHh2Q9_BmxCNGhAPkUxerMFC7_r1B	2/7/2019	Link to The Source included in post.
Twitter	Foodie&Nerdie	Resident	https://twitter.com/FoodieandNerdie/status/1093567655468969986	2/7/2019	Post wondering if there will be a meeting in Long Beach.
Twitter	ILCSC	Company/ Organization	https://twitter.com/ILCSC/status/1093583861638778880	2/7/2019	Post includes flyer for ADA Van Nuys meeting.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1093321920534249472	2/6/2019	Photo of Van Nuys workshop included in post.
Twitter	Southeast Valley Community Plan Update	Company/ Organization	https://twitter.com/SEValleyCPU/status/1092931079470600192	2/5/2019	Link to Van Nuys meeting included in post.
Twitter	LA County Bike Coalition	Company/ Organization	https://twitter.com/lacbc/status/1091050743052656640	1/31/2019	Information regarding the Inglewood meeting included in post.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1091134806237343749	1/31/2019	Pictures from Inglewood meeting included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Colleen Stoll (Santa Monica office of transportation)	Resident	https://twitter.com/cefisherstoll/status/1090068538096640001	1/28/2019	
Blog Post	Streets Blog LA	Blog	https://la.streetsblog.org/2019/01/28/this-week-in-livable-streets-183/	1/28/2019	Schedule for Inglewood and Van Nuys meetings included in blog post.
Twitter	Kenny Uong	Resident	https://twitter.com/KennyUong/status/1089217988723597313	1/26/2019	Photos from Compton meeting included in post.
Facebook	Marc Caraan	Resident	https://www.facebook.com/search/top?q=NextGen%20bus%20study&epa=SEARCH_BOX	1/26/2019	
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1089233723877441536	1/26/2019	Photos from LATTTC meeting included in post.
Blog Post	Streets Blog LA	Blog	https://la.streetsblog.org/2019/01/25/also-in-metros-28-by-2028-funding-proposal-new-mobility-fees-mostly-on-lyft-uber/	1/25/2019	Article mentions NextGen bus study as part of 28 by 2028 funding proposal
Twitter	Angels Moving Forward	Company/ Organization	https://twitter.com/angelsmovingfwd/status/1088525138285318144	1/24/2019	Pictures from Compton meeting included in post.
Twitter	Dan Wentzel	Resident	https://twitter.com/danwentzel/status/1088523808808423424	1/24/2019	Post includes photo of GIS map as well as a link to news article.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	San Gabriel Valley COG	Municipality	https://twitter.com/SGVCOG/status/1088477213534474240	1/24/2019	Post advertises Pasadena NextGen community meeting.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1088599122263855104	1/24/2019	Photos from Pasadena meeting included in post.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1088245293462761477	1/23/2019	Photo from community meeting included in post.
Twitter	City of Pasadena	Municipality	https://twitter.com/PasadenaGov/status/1088117365995229184	1/23/2019	Information regarding Pasadena Senior Center included in post.
Twitter	LATTC	University		1/23/2019	Meeting notice for 1.26.19 meeting at LATTC.
Twitter	City of Beverly Hills	Municipality	https://twitter.com/CityofBevHills/status/1087784496387239938	1/22/2019	Link to NextGen meeting schedule included in link
Blog Post	Joe Linton/ Streets Blog LA	Blog	https://la.streetsblog.org/2019/01/22/this-week-in-livable-streets-182/	1/22/2019	
Twitter	Matt	Resident	https://twitter.com/mwinner213/status/1087409749350445056	1/21/2019	
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1087120111708852224	1/20/2019	Link to Metro NextGen website included in post.
Twitter	Pasadena DOT	Transit Agency	https://twitter.com/PasadenaDOT/status/1086065676534587393	1/17/2019	Post includes information for Pasadena meeting.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1086097585524346883	1/17/2019	Post promoting El Camino College meeting.
Twitter	City of Glendora	Municipality	https://twitter.com/CityofGlendora/status/1086036340184014848	1/17/2019	Image of meeting schedule included in post.
Facebook	Arellano Associates	Company/ Organization	https://www.facebook.com/arellanoassociates/?tn=%2Cd%2CP-R&eid=ARDjhu_n2EyfhWrmXUBTT6_VEVipK9BbJELvIqB8h5J6pA7RJ7NWAKJTXBayS_7JY6bZoWHDNzeBCBCI	1/16/2019	Video of West Hollywood meeting included in post.
Twitter	Burbank Transportation Management Organization	Company/ Organization	https://www.facebook.com/TheBTMO/?ref=search&tn=%2Cd%2CP-R&eid=ARAGbd7HHhDCJ3T68v5F_Y09SYIC-bZwVLHO28ugaETXpRYeYV1tgpnvphyya8VZDVYMX8hIWvMxy-	1/16/2019	Link to Van Nuys meeting included in post.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1085703538716565504	1/16/2019	Photos from San Gabriel meeting included in post.
Twitter	City of San Gabriel	Municipality	https://twitter.com/search?q=NextGen&src=typd	1/15/2019	Post includes link to meeting schedule.
Twitter	Urbanize.LA	Company/ Organization	https://twitter.com/UrbanizeLA	1/14/2019	Retweet of City of Alhambra post.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	San Gabriel Valley COG	Municipality	https://twitter.com/SGVCOG/status/1084965164992974849	1/14/2019	Reminder post of upcoming SGV community meeting
Twitter	City of Alhambra	Municipality	https://twitter.com/cityofalhambra/status/1084877642157805568	1/14/2019	Link to meeting schedule included in link.
Twitter	Kenny Uong	Resident	https://twitter.com/KennyUong/status/1084269536591790080	1/12/2019	Multiple Posts that include pictures from Bell community meeting.
Twitter	Hilda Solis	Elected Official	https://twitter.com/HildaSolis/status/1084152061694926848	1/12/2019	Photos of Bell meeting included in post.
Facebook	Francisco Valencia	Resident	https://www.instagram.com/p/Bsb4dPGhbpT/	1/10/2019	Photos of event from Plummer Park.
Twitter	Dan Wentzel	Resident	https://twitter.com/danwentzel/status/1083159625728327681	1/9/2019	Video of attendance at WeHo meeting included in post.
Instagram	Pacoima Beautiful	Company/ Organization	https://www.instagram.com/p/BsZGOYBE7z/	1/9/2019	Post includes image of meeting schedule.
Twitter	City of West Hollywood	Municipality	https://twitter.com/WeHoCity/status/1083136335857229824	1/9/2019	Link to meeting dates included in post
Twitter	City of Glendale	Municipality	https://twitter.com/MyGlendale/status/1083106186566815754	1/9/2019	
Twitter	Pacoima Beautiful	Company/ Organization	https://twitter.com/PB_Community/status/1082782300465700864	1/8/2019	Post includes time and date of Pacoima meeting.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	City of Malibu- Government	Municipality	ok.com/CityofMalibu/photos/basw.Abo5yGD8JPX1EBoiEa75JSdJSz8lulns_5oHNeiR1N3bVvGw8d2T_rL7f3EKFUaZ2ysl_ItE6RPWtWI_Sc6P8PWrrYIQSagKxrwiV5NYwGX--NwBjrYVOPDJSWxrh6y2A9E_38jPWJ5UZEGDkfvzPQOEHCfY2X9wp2ufkEUAXWeBnHg.2085749794825215.2402529143110080.2164108256950665.1526747467453470.1745422005524664.1845533918846805.1186241431529832.1711417935591738.1745421915524673/2402529143110080/?type=1&opaqueCursor=AbrW8Xye_5W6X3hOEBqlquaolsJhU_59Pssdf2aiK3esWvl5TO8FALp1D5X6uNb	1/9/2019	Link to meeting dates included in post
Twitter	Women & Girls Initiative	Company/ Organization	https://twitter.com/LACWGI/status/1083055505218560000	1/9/2019	Pictures of Pacoima meeting included in post.
Twitter	West Hollywood Advocates for Metro Rail (WHAM)	Company/ Organization	https://twitter.com/WHAMRAIL/status/1083152649770262529	1/9/2019	Photo of WeHo event space included in post.
Twitter	UCLA Transportation	University	https://twitter.com/UCLACommute/status/1082795395900674049	1/8/2019	Link to meeting dates included in post

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	City of Lynwood	Municipality	https://www.facebook.com/search/str/metro+nextgen+bus+study/keywords_search?epa=SEARCH_BOX	1/8/2019	Link to meeting schedule included in post.
Twitter	Radio Justice LA	Company/ Organization	https://twitter.com/RadioJusticeLA	1/8/2019	Link to South Bay and San Gabriel meetings included in post.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Link to <i>The Source</i> included in post.
Twitter	AARP California	Company/ Organization	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Retweet of Metro post
Twitter	Discover Arcadia	Municipality	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Retweet of Metro post
Twitter	Valerie	Resident	https://twitter.com/oneroadrunner/status/1082409302751555584	1/7/2019	Link to Metro NextGen Website included in post.
Twitter	LA County Bike Coalition	Company/ Organization	https://twitter.com/lacbc/status/1082355647293796352	1/7/2019	Link to Metro NextGen Website included in post.
Twitter	Hilda Solis	Resident/ Elected Official	https://twitter.com/HildaSolis/status/1082434226652409856	1/7/2019	Post includes information regarding the City of Bell NextGen meeting.
Twitter	Angeles Moving Forward	Company/ Organization	https://twitter.com/angelsmovingfwd/status/1082399643219030016	1/7/2019	Link to Metro NextGen Website included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Bryan M. Sastokas	Resident (Metro CIO)	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Retweet of original Metro tweet.
Facebook	Go Glendale	TMO/TMA	https://www.facebook.com/search/str/nextgen+bus+study/keywords_search?epa=SEARCH_BOX	1/7/2019	Link to meeting schedule included in link.
Twitter	Go Glendale	TMO/TMA	https://twitter.com/GoGlendaleTMA/status/1082336993835544576	1/7/2019	Link to meeting schedule included in link.
Twitter	Pau Aguilar	Resident	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Retweet of original Metro tweet.
Twitter	Arthur Sohikian	Resident/ Local Busines Owner	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Retweet of original Metro tweet.
Twitter	Transit Tweets	Company/ Organization	https://twitter.com/metrolosangeles/status/1082422935695036416	1/7/2019	Link to <i>The Souce</i> included in post.
Web Post	City of West Hollywood	Municipality	https://www.weho.org/Home/Components/News/News/8236/23	1/7/2019	Includes link to Metro NextGen website.
Twitter	Kathryn E. Campbell	Resident	https://twitter.com/sparks_kc/status/1081587816935546880	1/5/2019	Link to Metro NextGen Website included in post.
Twitter	Laura Barrera	Resident	https://twitter.com/LauraBarreraMPH/status/1081574406176952321	1/5/2019	Link to community meeting dates included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	City of Alhambra	Municipality	https://twitter.com/cityofalhambra/status/1081244598943379456	1/4/2019	Link to meeting schedule included in link.
Twitter	Southeast LA Collaborative (SELA)	Company/ Organization	https://twitter.com/elacollab/status/1081229430675202049	1/4/2019	Post also shared on Instagram page.
Twitter	City of Diamond Bar	Municipality	https://twitter.com/DiamondBarCity/status/1081291072981094401	1/4/2019	Link to Metro NextGen website included in post.
Twitter	Women & Girls Initiative	Company/ Organization	https://twitter.com/LACWGI/status/1080904775279902721	1/3/2019	Link include to <i>The Source</i> in post.
Twitter	Move LA Transit	Company/ Organization	https://twitter.com/MoveLATransit/status/1080913869353041921	1/3/2019	Link to meeting dates included in post
Twitter	Justin Bonney	Personal Account/ Resident	https://twitter.com/JustinTBonney/status/1080901421275508741	1/3/2019	Link to news article included in post.
Twitter	Curbed LA	Company/ Organization	https://twitter.com/CurbedLA/status/1080900136228679681	1/3/2019	Included in list of thing to look forward to in 2019 in LA.
Twitter	Cambridge Systematics	Company/ Organization	https://twitter.com/Camsys/status/1080858872850583552	1/3/2019	Link to NextGen Tradeoffs video included in post.
Twitter	UCLA Transportation	University	https://twitter.com/UCLACommute/status/1080931501762588673	1/3/2019	

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Mike Bonin	Elected Official	https://twitter.com/MikeBoninLA/status/1078777407400603648	1/2/2019	Official Twitter account of Councilmember Mike Bonin.
Twitter	Jena Roth	Resident	https://twitter.com/jrotem/status/1080591307838509057	1/2/2019	Link to all 10 community meetings included in post.
Blog Post	Curbed Los Angeles	Company/ Organization	https://la.curbed.com/2019/1/2/18156744/dodgers-earthquake-tarantino-hollywood-2019	1/2/2019	Link to NextGen information and data listed in article.
Twitter	La Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1080525463850795008	1/2/2019	Link to <i>The Source</i> blog listed in post.
Twitter	SCAG	Municipality	https://twitter.com/SCAGnews/status/1080624686256410624	1/2/2019	
Twitter	Cuong T.	Resident	https://twitter.com/metrolosangeles/status/1080525463850795008	1/2/2019	Retweet of original Metro tweet.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	City of South El Monte	Municipality	https://www.facebook.com/CityOfSouthElMonteGovernment/photos/basw.Abo_iHIN1IDA8WIYfyk7sQkiKaackKFQniTSFLibsNTm-CoiU6N7MCvnOaHT4As6BXIIPH36cf_6cHxQqZx_Gg9S5_zoKdQzkiMGtEOV7iq23DyQ15vl85uvzZvNXetpxLijhMh61JQ3HAeXzz_OINmHxy4QKDZLuMXQqbkt0LsHaw.2085749794825215.2402529143110080.2164108256950665.1526747467453470.1745422005524664.1845533918846805.1186241431529832.1711417935591738.1745421915524673/1186241431529832/?type=1&theater	1/2/2019	Image of meeting schedule included in post.
Twitter	San Gabriel Valley Cog	Municipality	https://twitter.com/SGVCOG/status/1080609108393246721	1/2/2019	Listed times and dates for meeting taking place in SGV (Pasadena & San Gabriel).
Twitter	City of El Monte	Municipality	https://twitter.com/metrolosangeles/status/1080525463850795008	1/2/2019	Retweet of original Metro tweet.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	City of Rosemead-City Hall	Municipality	https://www.facebook.com/search/str/nextgen+bus+study/keywords_search?epa=SEARCH_BOX	1/2/2019	Post includes link to meeting schedule
Twitter	City of Duarte	Municipality	https://twitter.com/metrolosangeles/status/1080525463850795008	1/2/2019	Retweet of Metro NextGen post.
Twitter	City of Rosemead	Municipality	https://twitter.com/CityofRosemead	1/2/2019	Retweet of Metro NextGen post.
Twitter	LA Community College District	Company/ Organization	https://twitter.com/laccd	1/2/2019	Retweet of Metro NextGen post.
Twitter	Eric Bruins	Individual Resident	https://twitter.com/ejfb Bruins	1/2/2019	Transportation Policy Director for Mike Bonin.
Twitter	City of Bell	Municipality	https://twitter.com/CityofBell/status/1080543698444791808	1/2/2019	Link to Instagram posted on same day.
Instagram	City of Bell	Municipality	https://www.instagram.com/p/BsJMOBGbtUJ/?utm_source=ig_twitter_share&igshid=nw6egmzuh9jr	1/2/2019	
Twitter	San Gabriel Valley NOW	Company/ Organization	https://twitter.com/SGVNOW/status/1080523484093140992	1/2/2019	Link to Instagram posted on same day.
Instagram	San Gabriel Valley NOW	Company/ Organization	https://twitter.com/SGVNOW/status/1080523484093140992	1/2/2019	
Twitter	Keep California Moving	Company/ Organization	https://twitter.com/KeepCaliMoving/status/1079425627478884352	12/30/2018	Post includes link to meeting schedule

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Southern California Association for Commuter Transportation	Company/ Organization	https://twitter.com/SoCal_ACT	12/30/2018	Retweet of Metro Twitter Post
Twitter	Beach City Transit	Transit Agency	https://twitter.com/metrolosangeles/status/1079101036235800578	12/29/2018	Retweet of Metro NextGen tweet.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1079101036235800578	12/29/2018	Link to January community meetings included in post.
News Post	LA Daily News	Company/ Organization	https://www.dailynews.com/2018/12/28/metro-wants-to-upgrade-its-bus-system-and-now-it-seeks-your-input/	12/28/2018	Included link to NextGen Transit Competitiveness and Market Potential.
Twitter	Los Angeles Informer	Blog	https://twitter.com/losangelesinfor/status/1078789653661126656	12/28/2018	Link to online article included in post.
Website Post	City of Signal Hill	Municipality	https://cityofsignalhill.org/CivicAlerts.aspx?AID=493	12/28/2018	Provided link to Metro NextGen website.
Facebook	LA Metro	Transit Agency	https://www.facebook.com/losangelesmetro/	12/28/2018	Link to <i>The Source</i> blog listed in post.
Twitter	LA Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1078416510471884800	12/27/2018	Link to January community meetings included in post.
Blog Post	The Source (LA Metro)	Company/ Organization	https://thesource.metro.net/tag/nextgen-bus-study/	12/26/2018	
Twitter	Kenny Uong	Resident	https://twitter.com/KennyUong_/status/1076209500015611905	12/21/2018	

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Ryan Young	Individual Resident	https://twitter.com/ryanayng/status/1075208868009897985	12/18/2018	Image of travel operation study included in post.
Website Post	City of Gardena	Company/ Organization	http://www.cityofgardena.org/21479-2/	11/17/2018	
Twitter	Investing in Place	Company/ Organization	https://twitter.com/InvestinPlace/status/1051992510006849537	10/15/2018	Link to Metro Board Report included in post.
Twitter	Big Blue Bus	Transit Agency	https://twitter.com/SMBigBlueBus/status/1044677996358045696	9/25/2018	Link to NextGen website included in post.
Twitter	Culver City Bus	Transit Agency	https://twitter.com/CulverCityBus/status/1044337085509906432	9/24/2018	Link to NextGen website included in post.
Twitter	GTrans	Transit Agency	https://twitter.com/RideGTrans/status/1040393341471547395	9/17/2018	Link to survey included in post.
Instagram	City of Vernon	Municipality	https://www.instagram.com/p/BnruSo8nCTt/	9/13/2018	Provided link to Metro NextGen website.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	Friends of South Gate Parks	Company/ Organization	https://www.facebook.com/160675350686535/photos/basw.Abq0K5W-a6krYerEsyP5-bEVcC2PGsi3LoTXLB1EZTHRWW2vHfuYcbxj5cMLLI9iV4N_5pvVS7Y_51b1giRh4HJWoCOJoMTVwiW3Hf-Y9Q62m4tbiZ7rb7sBQEBVrZJznD18m2xsZlF3eXkouR219_6.1186241431529832.2274793395895399.2083696978326633.1871399709614082.10153549554283999.1526747467453470.1411281222291048.1881427291868695.1968390890094395/1871399709614082/?type=1&theater	9/1/2018	Link to Metroquest included in post.
Twitter	Ross Zelen	Bart Doyle Assoc./ VERDE Xchange	https://twitter.com/RZelen/status/1039574793421447168	9/11/2018	
Twitter	Carter Rubin	Individual Resident	https://twitter.com/CarterRubin/status/1037412550676082688	9/5/2018	Provided link to Metro Blog <i>The Source</i> .
Twitter	Mike Bonin	Elected Official	https://twitter.com/MikeBoninLA/status/1037310675373240320	9/5/2018	Link to The Source online engagement tool included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Carter Rubin	Personal Account/ Resident	https://twitter.com/CarterRubin/status/1037412550676082688	9/5/2018	Link to <i>The Source</i> online engagement tool included in post.
Twitter	Ross Zelen	Bart Doyle Assoc./ VERDE Xchange	https://twitter.com/RZelen/status/1039574793421447168	9/1/2018	
Twitter	People for Mobility Justice	Company/ Organization	https://twitter.com/peopleforMJ/status/1035259443359825920	8/30/2018	
Twitter	LA County CSO	Company/ Organization	https://twitter.com/CSO_LACo/status/1032658758080421893	8/23/2018	Link to survey included in post.
Facebook	City of Pomona	Municipality	https://d.facebook.com/thecityofpomona/photos/a.534855086542665/2164108256950665/?type=3&tn=EH-R	8/1/2018	
Twitter	SLATE-Z	Company/ Organization	https://twitter.com/LA_SlateZ/status/1021874941610741761	7/24/2018	
Twitter	Bryn Lindblad	Individual Resident	https://twitter.com/Bryn_Lindblad/status/993529518970191872	5/7/2018	

Metro NextGen Bus Study Workshops Earned Media

Round 1

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	Westside Urban Forum	Company/ Organization	https://www.facebook.com/WestsideUrbanForum/posts/here-s-a-link-to-metros-nextgen-bus-study-that-conan-cheung-discussed-at-last-wee/10155904657293113/	4/26/2018	
News Post	Curbed Los Angeles	Company/ Organization	https://la.curbed.com/2018/4/9/17202902/metro-los-angeles-bus-improvements-ridership	4/9/2018	
Twitter	Crenshaw/ LAX Rail	Transit Agency	https://twitter.com/crenshawrail/status/983388775140216832	4/9/2018	Link to Metro NextGen Website included in post.
Website Post	Empower LA	Company/ Organization	http://empowerla.org/metro-nextgen-bus-study/	3/27/2018	
Youtube	Los Anelist	Individual Resident	https://www.youtube.com/watch?v=8vuUHSzp8Os	3/21/2018	
Twitter	Mark Vallianatos	Individual Resident	https://twitter.com/markvalli/status/960286542622175232	2/4/2018	
Website Post	City of San Gabriel	Municipality	http://sangabrielcity.com/Calendar.aspx?EID=1877	NA	Event listed on city calendar of events.
Website Post	City of Lakewood	Municipality	http://www.lakewoodcity.org/news/displaynews.asp?NewsID=1025&TargetID=1	NA	Link to Metroquest survey listed in post.

Metro NextGen Bus Study Workshops Earned Media

Round 2

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	Invest in Place	Company/Organization	https://twitter.com/InvestinPlace/status/1108764895846121472	3/21/2019	Post includes photo and references Metro Board of Directors meeting
Twitter	StreetblogLA	Blog	https://twitter.com/StreetblogLA/status/1108778069366456320	3/21/2019	Post includes minutes from Metro Ops Committee meeting
Twitter	Arellano Associates	Company/Organization	https://twitter.com/ArellanoAssoc/status/1108470831653384193	3/20/2019	Post includes photo from East LA workshop
Twitter	West Hills Neighborhood Council	Municipality	https://twitter.com/WestHillsNC/status/1108355657478987776	3/20/2019	Post includes comment card from NextGen workshops and also includes information as to where it can be mailed.
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1107685659207188480	3/18/2019	Post information regarding East LA workshop
Twitter	City of Lynwood	Municipality	https://twitter.com/MyLynwoodca/status/1105876262151749633	3/13/2019	Link to workshop series schedule included in post. Three total posts.
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1105998633730801664	3/13/2019	Photo from South West Los Angeles workshop included in post.
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1105622526716231681	3/12/2019	Photo from Calabasas workshop included in post.
Facebook	City of Malibu Office of Public Safety	Municipality	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlvb190aW1ljoie1wiBmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCi6XFxcjilwMTktMDNcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAzXFxcIn1cIn0ifQ%3D%3D	3/11/2019	Information regarding Calabasas meeting included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 2

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Twitter	City of Malibu	Municipality	https://twitter.com/CityMalibu/status/1105304903277256704	3/11/2019	Link to Supervisor Kuehl's office workshop included in post.
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1104855725380120578	3/10/2019	Link to Metro NextGen Bus Study website included in post.
Twitter	Vroom Vroom	Resident	https://twitter.com/elanahan/status/1103873556033593346	3/7/2019	
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1103719525118300160	3/7/2019	Link to The Source included in post.
Twitter	Richard Bloom	Assemblymember District 50	https://twitter.com/AsmRichardBloom/status/1103032647175946241	3/5/2019	Information regarding Felicia Mahood workshop included in post.
Twitter	Mike Bonin	LA City Council Member	https://twitter.com/mikebonin/status/1102951381093167104	3/5/2019	Information regarding Felicia Mahood workshop included in post.
Twitter	Eric Bruins	Resident	https://twitter.com/ejfbruins/status/1103100150023544832	3/5/2019	Pictures from Felicia Mahood workshop included in post.
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1102738939385954306	3/4/2019	
Facebook	Mike Bonin	LA City Council Member	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlvbI90aW1lIjoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCi6XFxcljIwMTktMDNcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAzXFxcln1cIn0ifQ%3D%3D	3/5/2019	Link to NextGen YouTube video included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 2

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	Arellano Associates	Company/ Organization	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlvb190aW1ljoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCI6XFxcljIwMTktMDNcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAzXFxcln1cIn0ifQ%3D%3D	3/4/2019	Photos from Independent Living Center included in post.
Twitter	Arellano Associates	Company/ Organization	https://twitter.com/ArellanoAssoc/status/1102723110724235264	3/4/2019	Photos from Van Nuys meeting included in post.
Twitter	Alliance for a Better Community	Company/ Organization	https://twitter.com/afabc_la/status/1101304681551167489	2/28/2019	Photo of entire meeting schedule included in post.
Twitter	Big Blue Bus	Transit Agency	https://twitter.com/SMBigBlueBus/status/1101245682801876997	2/28/2019	Link to The Source included in post.
Facebook	Wilmington Neighborhood Council	Local Government	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlvb190aW1ljoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCI6XFxcljIwMTktMDJcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAyXFxcln1cIn0ifQ%3D%3D	2/28/2019	Information regarding Wilmington workshop included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 2

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	Big Blue Bus	Transit Agency	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlubl90aW1ljoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCI6FxcjllwMTktMDJcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAyXFxcIn1cln0ifQ%3D%3D	2/28/2019	Information regarding Felicia Mahood workshop included in post.
Newsletter	Mike Bonin	LA City Council Member	https://us16.campaign-archive.com/?u=cd65eddac57247afc23a13b71&id=c72be6d97b	2/28/2019	
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1101237990355955712	2/28/2019	Photo from Van Nuys meeting included in post
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1100571241776377857	2/26/2019	Link to The Source included in post.
Facebook	Harbor Los Angeles Community Plans	CBO	https://www.facebook.com/search/str/metro+nextgen+/keywords/blended/posts?epa=FILTERS&filters=eyJycF9jcmVhdGlubl90aW1ljoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCI6FxcjllwMTktMDJcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAyXFxcIn1cln0ifQ%3D%3D	2/25/2019	Information regarding 2nd round of workshops included in post.

Metro NextGen Bus Study Workshops Earned Media

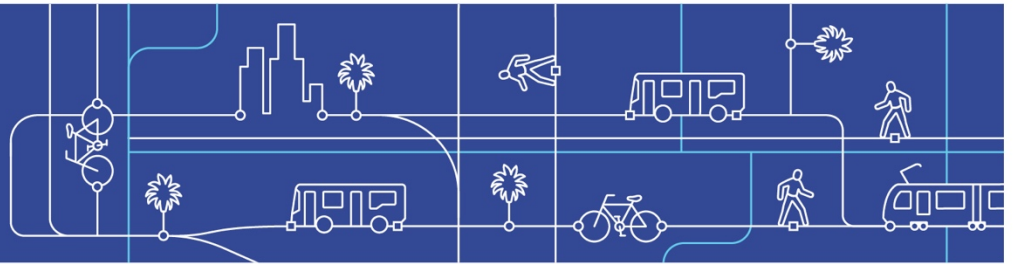
Round 2

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	Paul Koretz	LA City Council Member	https://www.facebook.com/search/str/metro+nextgen+/keywords/blended_posts?epa=FILTERS&filters=eyJycF9jcmVhdGlvbI90aW1ljoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCi6XFxcljllwMTktMDJcXFwiLFxcXCJlbmRfbW9udGhcXFwiOlxcClyMDE5LTAYXFxcln1cIn0ifQ%3D%3D	2/22/2019	Information regarding 2nd round of workshops included in post.
Twitter	Los Angeles Metro	Transit Agency	https://twitter.com/metrolosangeles/status/1098695151655026689	2/21/2019	Link to The Source included in post.
Twitter	Streets Blog LA	Blog	https://twitter.com/StreetsblogLA/status/1098649004735254529	2/21/2019	Post includes financial breakdown of NextGen bus study.
Facebook	Los Angeles Metro	Transit Agency	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlvbI90aW1ljoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCi6XFxcljllwMTktMDJcXFwiLFxcXCJlbmRfbW9udGhcXFwiOlxcClyMDE5LTAYXFxcln1cIn0ifQ%3D%3D	2/7/2019	Link to 2nd round of workshops included in post.

Metro NextGen Bus Study Workshops Earned Media

Round 2

Platform	Individual/ Organization	User Type	Link	Date of Post	Details
Facebook	Los Angeles Informer	Blog	https://www.facebook.com/search/top/?q=metro%20nextgen%20bus%20study&epa=FILTERS&filters=eyJycF9jcmVhdGlvbI90aW1lIjoie1wibmFtZVwiOlwiY3JlYXRpb25fdGltZVwiLFwiYXJnc1wiOlwie1xcXCJzdGFydF9tb250aFxcXCi6XFxcjllwMTktMDJcXFwiLFxcXCJlbnRfbW9udGhcXFwiOlxcXClyMDE5LTAyXFxcIn1cIn0ifQ%3D%3D	2/7/2019	Information regarding 2nd round of workshops included in post.



Attachment F: Social Media Examples

F.1

Facebook

F.2

Twitter

Facebook Examples



JAN 8 **NextGen Workshop (San Fernando Valley)**
Public · Hosted by Metro Los Angeles

★ Interested ✓ Going ...

🕒 Tuesday, January 8, 2019 at 4 PM – 7 PM
about 2 months ago

📍 Hubert H. Humphrey Recreation Center
12560 Filmore St, Pacoima, California 91311 [Show Map](#)



Metro Los Angeles
December 28, 2018 · 🌐

Help redesign our bus system!



THESOURCE.METRO.NET

10 community meetings to be held for NextGen Bus Study beginning in January

👍❤️ 47 18 Shares

Twitter Examples

LA Metro @metrolosangeles · Mar 12

Our NextGen Bus Study team is at Supervisor Sheila Kuehl's district office in Calabasas through 7pm. Come by and learn more about how we're improving our system!



1 1 19

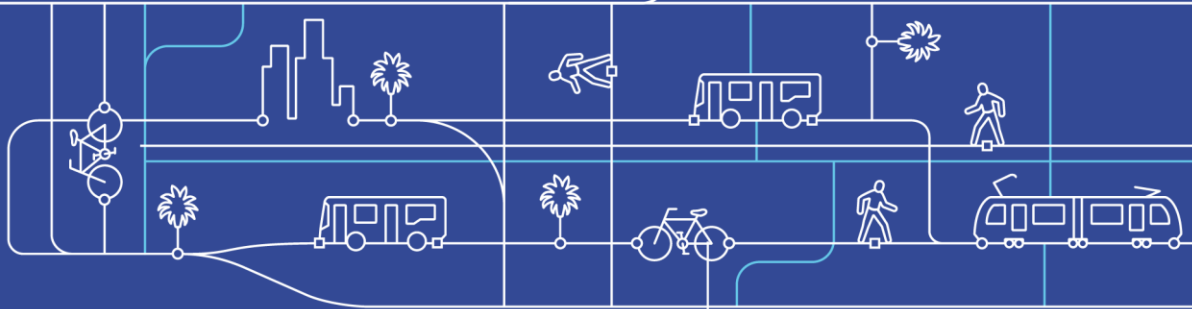
LA Metro @metrolosangeles · Jan 26

One hour left of our NextGen Bus Study meeting at LATT! If you're in the area, come on by via the Expo Line and speak to staff about how we can improve our bus system.



2 12

NEXTGEN Bus Study



SUMMARY

Working Group Meeting #6: Metro's Equity Platform in Action Through the NextGen Bus Study

May 29, 2019



Metro[®]

Attachment D

Transit Propensity Score for Census Tracts in Los Angeles County

Methodology

The concept of a Transit Propensity Score (TPS) is that there are physical, locational, and socio-economic factors that can potentially serve as a predictor of where transit service, if made available, could thrive. Most models, either regionally based or corridor based rely on the supply of transit service, its frequency, etc. as a key element to predict transit use. The Centers for Neighborhood Technology (AllTransit™), for example, provides a Transit, Jobs, Health, Equity, Bikeshare and Carshare, among other scores for each area or region selected. Their goal is to explore the social and economic impacts of Public Transit that is offered.¹ Alternatively, many cities have turned to the Census to collect data and compare the results of the socio-economic factors, journey to work, and other parameters that can be associated with transit use. Robert Bush, AICP of HDR presented a paper at the APTA Bus and Paratransit Conference held in Raleigh North Carolina on May 8, 2012. The principal question at the heart of the work was “Where should transit service be provided?”

Mr. Bush examined characteristics of transit riders using the following demographic factors:

1. Zero Vehicle housing units
2. Mobility limitations that prevented individuals from going outside the home
3. Employment disabilities
4. Minority populations
5. Recent immigrant populations with a tenure of less than 10 years
6. Low income households (Income less than or equal to \$15,000)
7. Females

All these factors were found to be relevant when controlling for income. Certain factors were rejected because of a lack of available data at the census block group level. These rejected variables included younger and older workers. Education played a significant role in defining a category of commuters that were found to have higher income but primarily related to rail travel. Finally, the team did not use categories of individuals who were primarily renters and non-licensed drivers because the variables could not be controlled for income. The resultant model, added an 8th factor to the above list – population density.

Ultimately, the research came down to two major factors – population and employment density. Figure 1 displays the results of the research and displays the linkage between the two highest ranking factors – population and employment density and the transit service supportive of that ratio. The study also provided a table which displayed the relationships between Mode and Density. Shown in Exhibit 1.

¹ CNT has created a robust, one of a kind database consisting of stop, route and frequency information for 824 transit agencies in regions with populations greater than 100,000 as well as a large number of smaller regions and agencies. Metropolitan areas as defined by the U.S. Office of Management and Budget with 2013 populations greater than 100,000 were chosen, and the transit agencies serving these areas were compiled from the 2013 National Transit Database as well as the American Public Transportation Agency. Based on their website, CNT has collected data from 824 Transit Agencies, covers 661,966 stop locations, and 13,099 routes.

Figure 1: Employment and Population Supportiveness by Mode

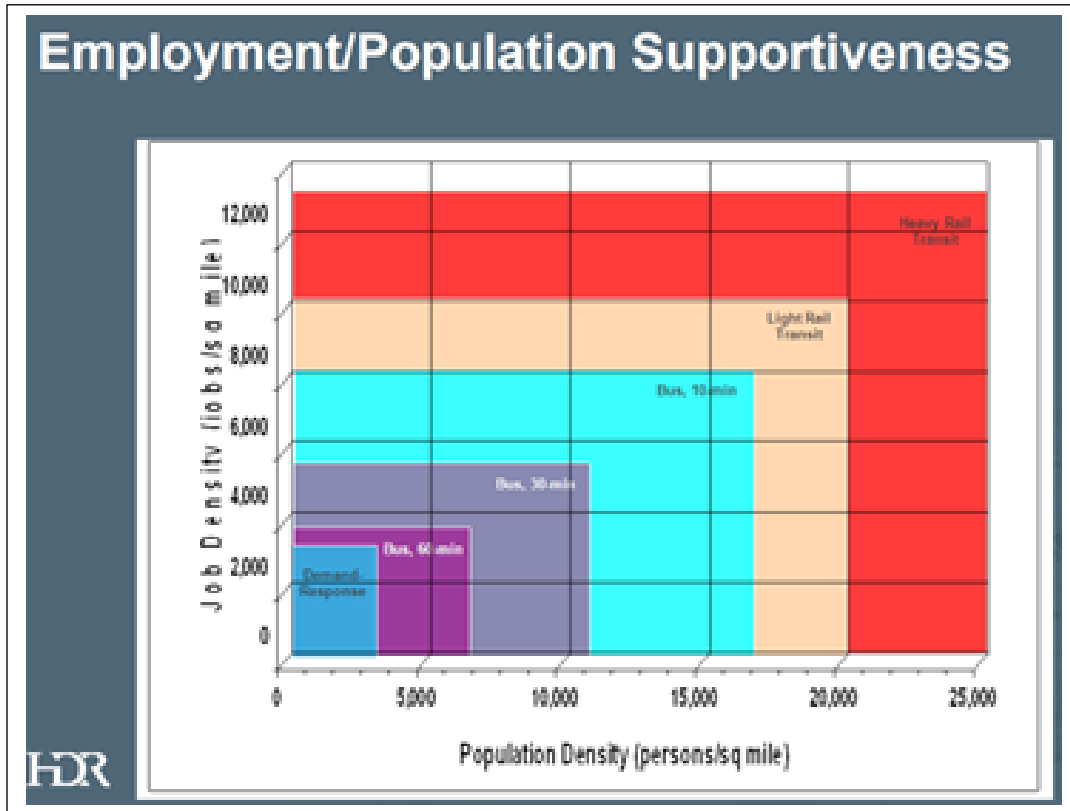


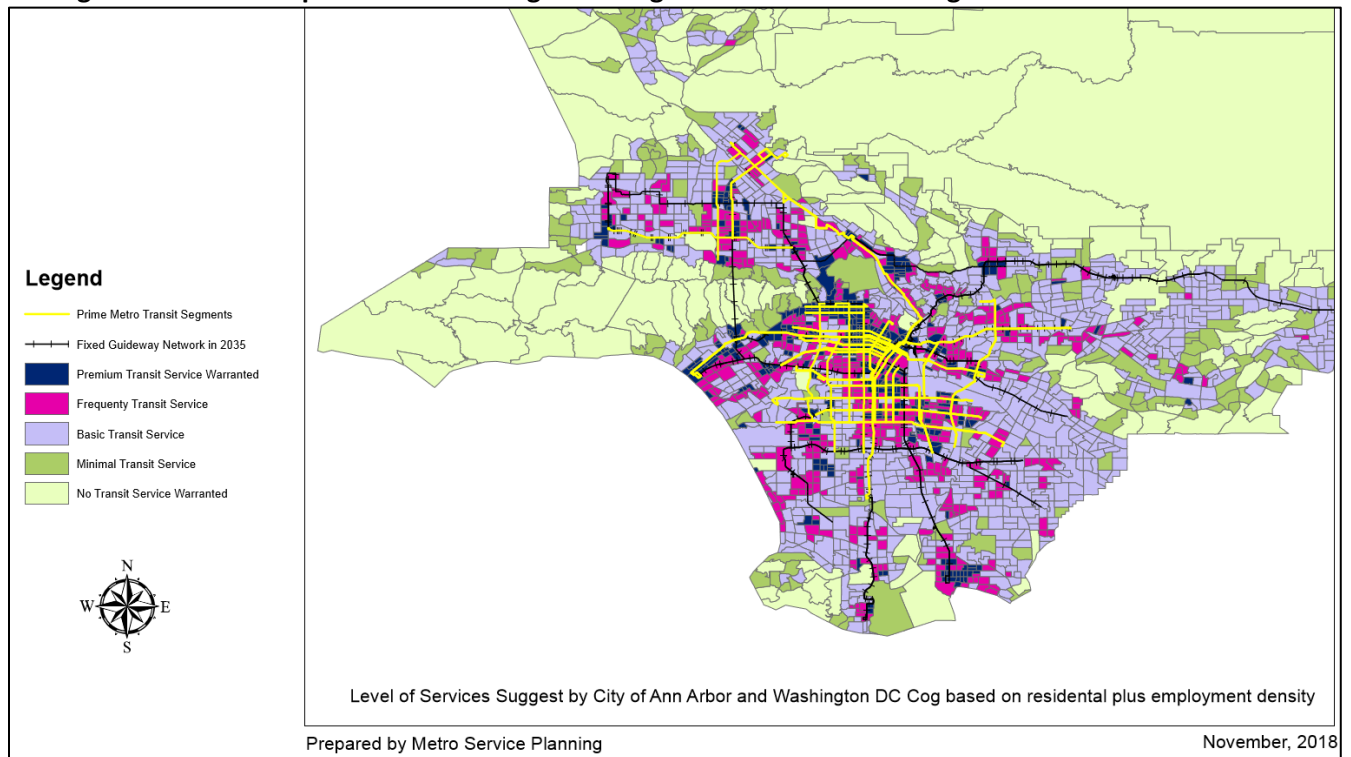
Exhibit 1 – Relationship between Mode and Density

Service Level	DU / Acre		Population / Square Mile		Jobs / Acre	
	Low	High	Low	High	Low	High
Demand Resp	2	3	3,500	5,000	2,000	3,000
60 Min Freq	3	4	5,000	6,500	3,000	3,000
30 min Freq	4.5	6	7,500	10,00	4,000	5,000
10 min freq	7.5	10	12,500	16,500	6,000	8,000
LRT	9	12	15,000	20,000	8,000	10,000
Rapid	12	15	20,000	25,000	10,000	13,000

In a study completed for Ann Arbor Michigan, the researchers there found that population and employment density are two key factors that can be used to predict transit service.² Applying these two criteria to census tracts in Los Angeles the resultant mapping of transit propensity results are shown in Figure 2.

² The Study was conducted for the City of Ann Arbor Michigan in 2009 as part of the *Transportation Plan Update*. In their approach, thresholds were estimated from Urban Development Intensities in the Washington, D.C. area by Terry Holzheimer and residential densities from in *Public Transportation and Land Use Policy*.

Figure 2 -Transit Propensities in Los Angeles Using Ann Arbor and Washington DC Studies



The most notable result of application of the Ann Arbor model is the definition of major transit corridors in the Los Angeles area that are supportive of different types of service. The model suggests that the darker the area, the more likely people are to be disposed towards transit services. As the population and employment densities are reduced, as expected, the propensity for transit use also declines. This result using the Ann Arbor Study mirrors the result in the HDR work done for Raleigh North Carolina. Importantly, the Ann Arbor method was completed without looking specifically at the availability of transit service. This approach is very useful for informing the NextGen study as will be discussed later.

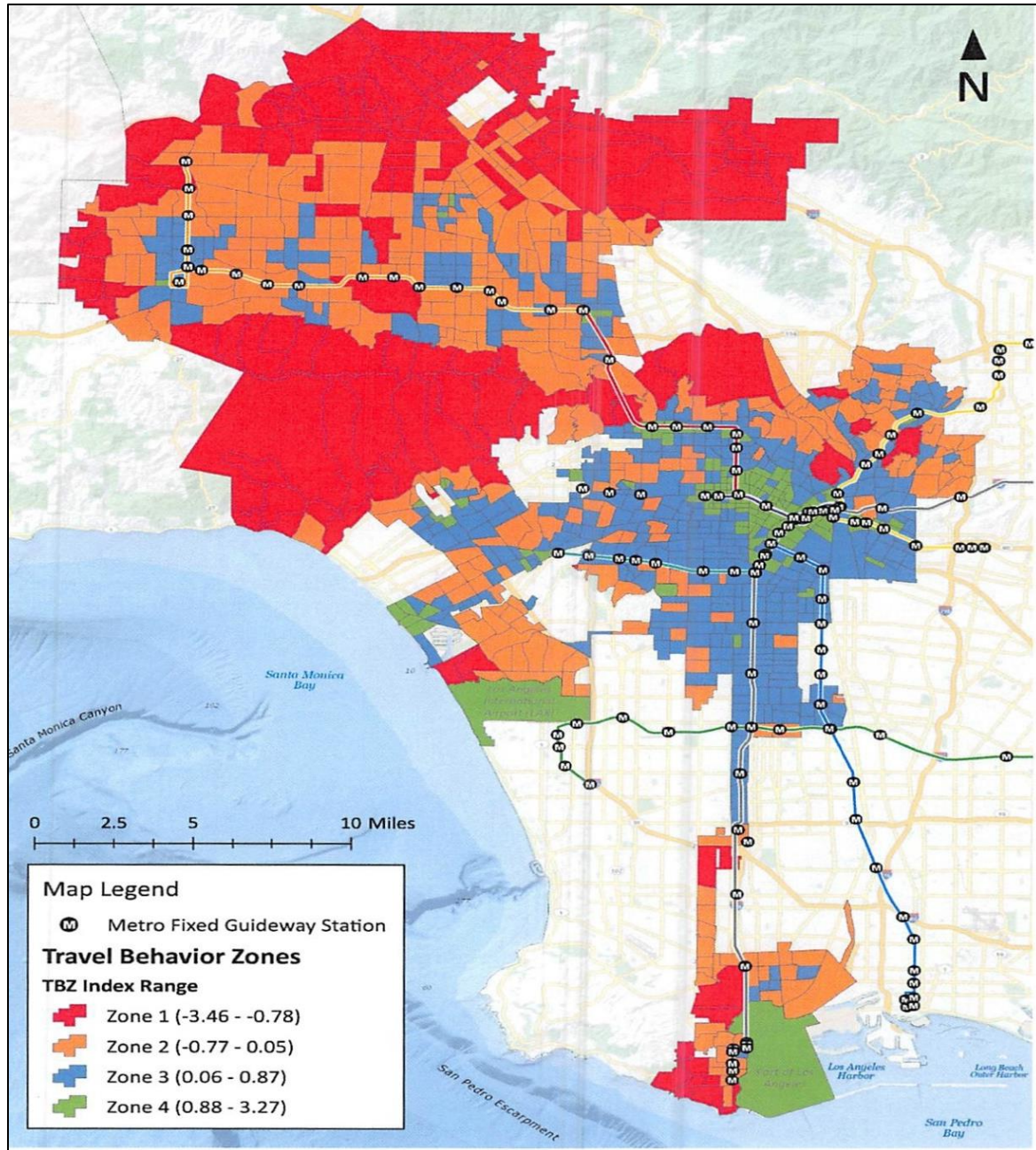
Finally, in this survey of socio-economic factors likely to affect transit ridership produced by others, the City of Los Angeles undertook an effort to define Travel Behavior Zones.³ The values of their index run from 1 to 4 and are based on the following factors:

1. Population Density
2. Daytime Population density
3. Land Use Diversity Score
4. Intersection density
5. Distance to the nearest BRT or Rail Station
6. Distance to the nearest bus stop

³ Technical Summary, *Characterizing Travel Behavior Zones* in Los Angeles, 2016.

The land Use Diversity score measures the mix of uses in an area and includes residential, retail (excluding big box stores), entertainment, office and institutional uses. Figure 3 displays the results of the City's analyses.

Figure 3 – Map of City of Los Angeles Travel Behavior Zones



Not surprisingly, the zones range from a low TBZ score (Red) to the highest TBZ score (Green and Blue). The City also superimposed a map of the rail transit system in Los Angeles as of 2016 before the EXPO line was extended to Santa Monica. Note, areas on the map that are white in color are not part of the City of Los Angeles. However, for the most part the rail system is in the densest TBZ locations.

NextGen Bus Study

The NextGen Bus Study is intended to redraw the bus system for Los Angeles. This process of refreshing the system extent was undertaken because of recent ridership declines and data taken from regional surveys that indicate that the bus system is not providing service to the places that people need to travel. As a result, Metro staff undertook a study to develop its own propensity index or score based on the 2010 Census, and its updates through 2016, as well as locations of major attractors of transit ridership, including schools, shopping centers, hospitals, and other institutions. The model was made significantly more robust than those of the literature survey above and produced results like the population and employment density formulations.

The TPS, however, is a device to estimate how likely individual census tracts might use transit service based on the underlying demographic and geographical data of the tract. Data sources used include the 2010 US Census, SCAG regional model data, various Los Angeles County resources from the GIS data portal, ArcGIS online resources, and data developed by Metro staff.

The TPS considers that there are three major components of predisposition to ride transit. They are:

1. Elements of Demand -e.g. Population and employment densities, including seniors, persons aged 18-34, and persons that are attending grades K-12. According to a recent TCRP Study that seeks to shed light on transit propensity, transit use is significant among millennials (ages 18-34). Hence, Metro staff included the millennials as identified in the census as one of the indicators⁴.
2. Market Segments - e.g. characteristics relating to the reason for travel. Some people are commuters, some are Transit Dependent, and some are choice riders. Each one of these markets has attributes broken down as follows:
 - a. Commuters - ages 35-54, and 55 years or older, have a higher education above 12th grade, and incorporate many single individuals.
 - b. Transit dependents - comprised of individuals with zero cars available, lower income, ages 10-19, ages 55+, single mothers, and individuals with disabilities
 - c. Choice riders, comprised of individuals between the ages of 20-34, have higher education beyond 12th grade, and are single (no children).
3. Built Environment - aspects of the environment that people must navigate to travel to and from. Attributes that fall into this area of the TPS include:
 - a. An assessment of the walkability of the census tract based on the number connected street intersections
 - b. the square footage of built development, and

⁴ M. Coogan, G. Spitz, T. Adler, N. McGukin, R. Kuzmyak, and K. Karash, *Understanding Changes in Demographics, Preferences, and Markets for Public Transportation*, TCRP 201, TRB, National Academies of Science, Engineering and Medicine, 2018.

- c. housing density

The three components of the TPS were weighted as follows:

- a. Elements of Demand - 30%
- b. Market Segments - 30%
- c. Built Environment – 40%

The individual elements that make up the three categories were weighted according to the number of attributes for that category and all attributes within a category had an equal contribution.

The Total Score includes the following 19 measures:

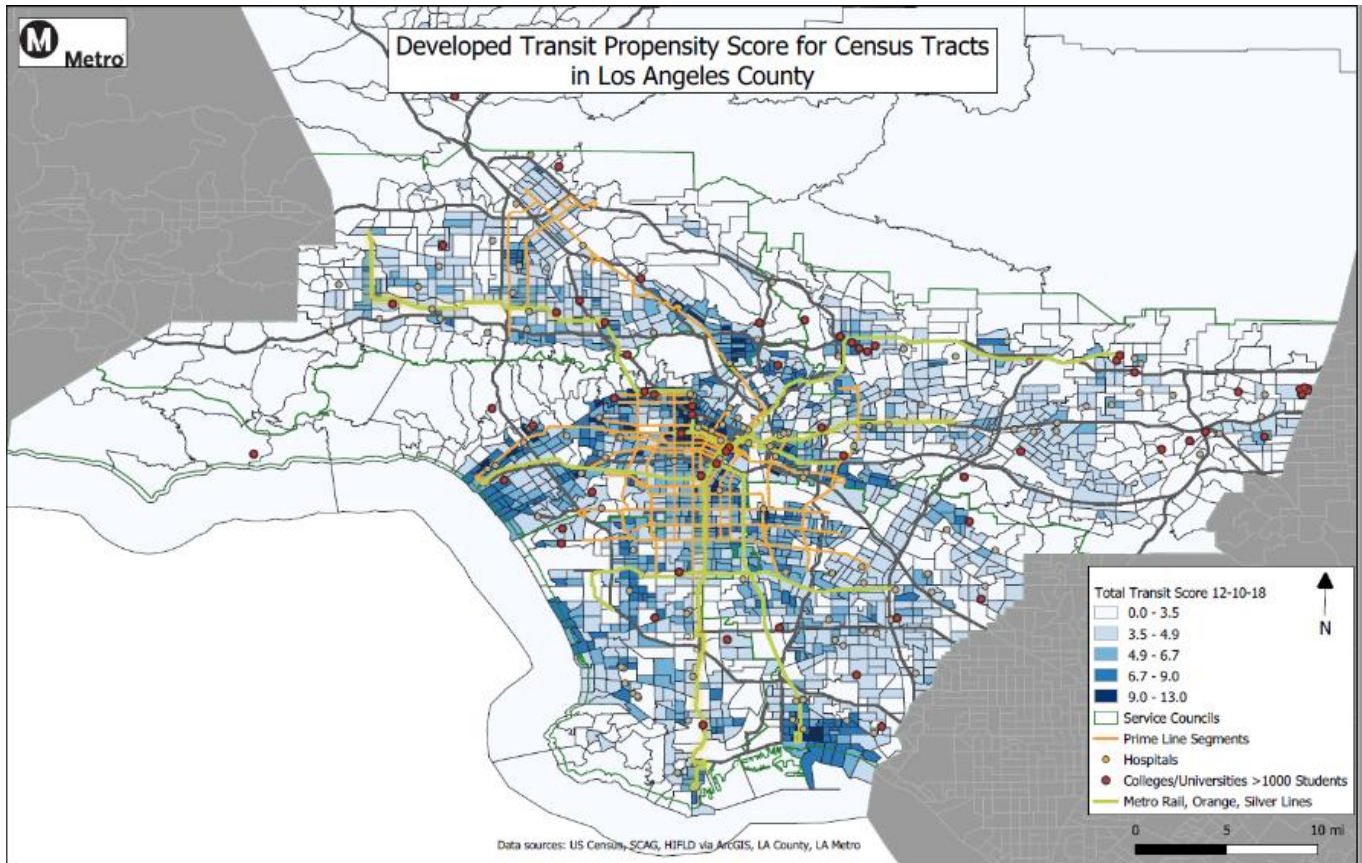
- Population per Acre
- Employment per Acre
- Non-Industrial Employment per Acre
- School Enrollment per Acre (includes Elementary, Middle, and High Schools)
- University population (includes enrollment and employment)
- Home-Based Shopping Trips per Acre
- Zero Car Households per Acre
- Poverty / Low Income Households per Acre
- School Age Students (age 10 -19) per Acre
- Seniors over 55 as of 2010 per Acre
- Single Mothers per Acre
- Disabled population per Acre
- Individuals Aged 20 to 34 per Acre
- Population with a bachelor's degree or higher per Acre
- Population that is single per Acre
- Individuals Aged 35 to 54 per Acre
- Walkability of the Census Tract (either a score of 0 or a 5)
- Housing units per Acre
- Square feet of occupiable space per acre

Each measure has the tract scores distributed into a natural break (Jenks Methodology) distribution of 5 groups, and then given a score of 1 through 5. Then, all the scores for each component are added and divided out to a total score of 5 for each component. A multiplier of 4/3 is used to account for the extra weight of the built environment component. The three final components are added to come up with a final score, which is again distributed into natural breaks.

Walkability is a measure that seeks to blend the density of intersections (nodes) with a limited block length. A tract is walkable when the connected node ratio (CNR) is at least 0.9 and the average block length is no more than 600 feet for given street block. CNR is the number of street intersections divided by the number of intersections plus cul-de-sacs and street ends. These thresholds were chosen based on

a variety of measures suggested by urban geographers and seeing which ones line up the best with Metro transit boardings. The walkability score is not unlike the one used by the City of Los Angeles. The resultant TPS is shown in Figure 4. Metro is continuing to refine its definition of walkability and has contracted with “Walkscore.com” to provide more detailed information on walkability. This document will be updated upon receipt of that information.

Figure 4 – Resultant Transit Propensity based on the Los Angeles Metro Methodology

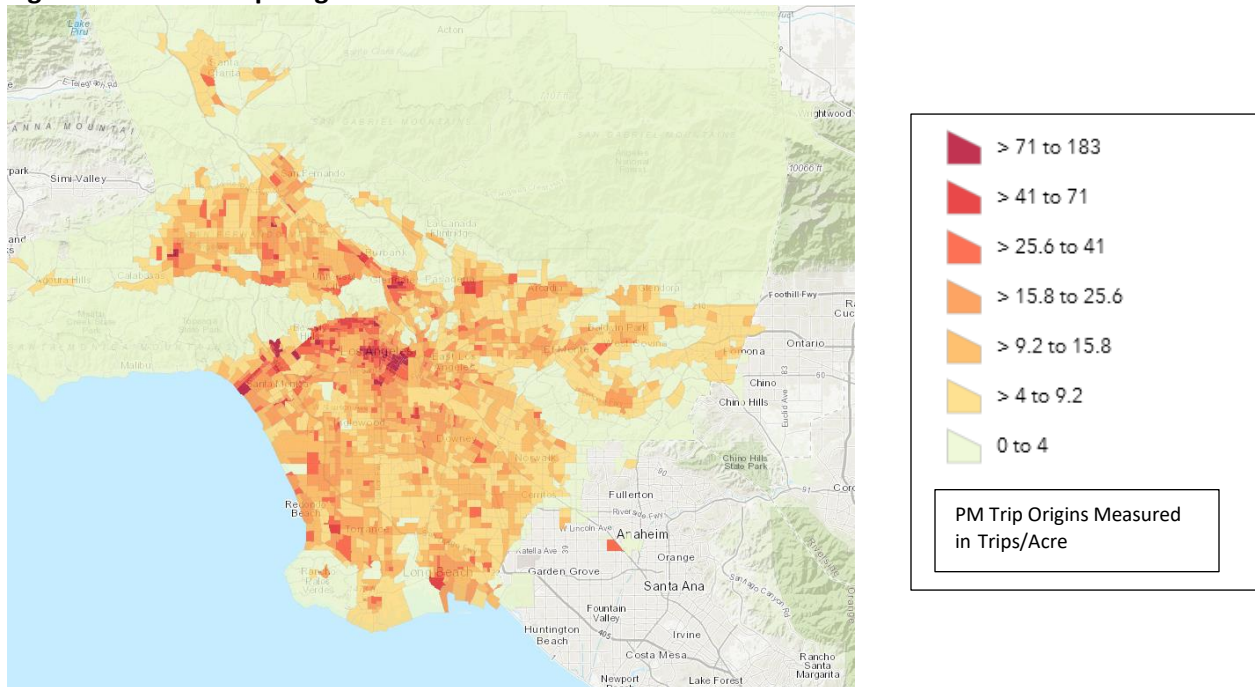


Conclusion

Metro staff successfully created a TPS for the City and County of Los Angeles. The results of the application of the scoring methodology reveal similar patterns found in an examination of the two-variable model shown in Figure 2 as well as mirrors studies performed by the Service Development Department relative to riders by time of day. Both methods provide substantial evidence that the TPS can be used as a predictor of transit use.

As shown in Figure 5, the PM peak origins mirror the distribution of propensities displayed in Figure 4. The conclusion is that the Metro TPS adequately models areas that require transit service.

Figure 5 – Person Trip Origins for the PM Peak Hour



Appendix

Scores for each of the categories are sorted using natural breaks in the data (Jenks).

- A total score greater than 0 and less than 3.5 was assigned a score of 1
- Total Score between 3.5 and 4.9 was assigned a score of 2
- Total Score between 4.9 and 6.7 was assigned a score of 3
- Total Score between 6.7 and 9.0 was assigned a score of 4
- Total Score between 9.0 and 13.0 (maximum score attained by any census tract) was assigned a score of 5

The details of the scores by category are shown in Exhibit 2. The latest formula used to calculate the TPS is shown in Exhibit 3. The table of Variables is described in Exhibit 4.

Exhibit 2 --Details of Each Measure

Measure	Numerator	Denominator	Natural Break Points	Data Source
Population per Acre	Total population	Total Land Acreage of Census Tract	0-12.16 (1) 12.16-25.30 (2) 25.30-43.05 (3) 43.05-76.80 (4) 76.80-147.64 (5)	2010 US Census
Employment per Acre	Employment Locations	Total Land Acreage of Census Tract	0-7.003 (1) 7.003-20.049 (2) 20.049 -47.576 (3) 47.576-117.288 (4) 117.288-268.663 (5)	2010 US Census
Non-Industrial Employment per Acre	Non-Industrial Employment Locations	Total Land Acreage of Census Tract	0-6.355 (1) 6.355-19.570 (2) 19.570-47.065 (3) 47.065-106.699 (4) 106.699-239.838 (5)	2010 US Census
School Enrollment per Acre	Enrolled Students in identified Elementary, Middle, High, and Day Schools	Total Land Acreage of Census Tract	0-1.832 (1) 1.832-5.834 (2) 5.834-12.560 (3) 12.560-26.451 (4) 26.451-54.201 (5)	California State Data Compiled by Metro Staff
University Population	University Enrollment plus Employment	N/A	0-1,216 (0) 1,216-5,532 (1) 5,532-13,105 (2) 13,105-26,305 (3) 26,305-43,733 (4) 43,733-66,025 (5)	ArcGIS Online
Home-Based Shopping Trips per Acre	Home-Based Shopping Trips	Total Land Acreage of Census Tract	0-1.569 (1) 1.569-4.729 (2) 4.729-10.664 (3) 10.664-29.043 (4) 29.043-52.738 (5)	Southern California Association of Governments
Zero Car Households per Acre	Zero Car Households	Total Land Acreage of Census Tract	0-1.203 (1) 1.203-3.878 (2) 3.878-8.315 (3) 8.315-15.563 (4) 15.563-28.193 (5)	2010 US Census
Poverty / Low Income Households per Acre	Population in Poverty	Total Land Acreage of Census Tract	0-3.365 (1) 3.365-8.765 (2) 8.765-17.606 (3) 17.606-38.316 (4) 38.316-78.695 (5)	2010 US Census
School Age Students per Acre	School Age Students (Population Age 10-19)	Total Land Acreage of Census Tract	0-1.863 (1) 1.863-3.958 (2) 3.958-6.626 (3) 6.626-11.483 (4) 11.483-23.428 (5)	2010 US Census

Seniors over 55 per Acre	Population over 55 as of 2010	Total Land Acreage of Census Tract	0-2.168 (1) 2.168-4.164 (2) 4.164-7.151 (3) 7.151-12.595 (4) 12.595-25.213 (5)	2010 US Census
Single Mothers per Acre	Population of Single Mothers	Total Land Acreage of Census Tract	0-0.727 (1) 0.727-1.672 (2) 1.672-3.089 (3) 3.089-5.613 (4) 5.613-13.287 (5)	American Community Survey 2017 5-year estimates on 2010 US Census Data
Disabled Population per Acre	Disabled Population	Total Land Acreage of Census Tract	0-118.29 (1) 118.29-244.50 (2) 244.50-422.61 (3) 422.61-771.58 (4) 771.58-1,815.98 (5)	2010 US Census
Individuals Aged 20 to 34 per Acre	Population Aged 20 to 34 as of 2010	Total Land Acreage of Census Tract	0-4.356 (1) 4.356-10.338 (2) 10.338-22.881 (3) 22.881-51.363 (4) 51.363-108.526 (5)	2010 US Census
Population with a bachelor's Degree or Higher per Acre	Population with a bachelor's Degree or Higher	Total Land Acreage of Census Tract	0-467.21 (1) 467.21-1,134.34 (2) 1,134.34-2,381.76 (3) 2,381.76-4,597.32 (4) 4,597.32-8,954.04 (5)	American Community Survey 2017 5-year estimates on 2010 US Census Data
Population that is Single per Acre	Population that is single	Total Land Acreage of Census Tract	0-794.22 (1) 794.22-1,704.39 (2) 1,704.39-3,072.09 (3) 3,072.09-5,996.47 (4) 5,996.47-11,934.60 (5)	American Community Survey 2017 5-year estimates on 2010 US Census Data
Individuals Aged 35 to 54 per Acre	Population Aged 35 to 54 as of 2010	Total Land Acreage of Census Tract	0-3.157 (1) 3.157-6.440 (2) 6.440-11.062 (3) 11.062-21.550 (4) 21.550-45.307 (5)	2010 US Census
Walkability of the Census Tract	N/A	N/A	No break points, score was either 0 or 5	Developed by Metro Staff
Housing Units per Acre	Housing Units	Total Land Acreage of Census Tract	0-5.389 (1) 5.389-10.853 (2) 10.853-19.303 (3) 19.303-34.062 (4) 34.062-78.316 (5)	2010 US Census
Square feet of Occupiable Space per Acre	Square feet of occupiable parcel space	Total Land Acreage of Census Tract	0-5,053.41 (1) 5,053.41-12,339.41 (2) 12,339.41-25,368.68 (3) 25,368.68-48,855.67 (4) 48,855.67-119,094.18 (5)	Los Angeles County Assessor's Data

Exhibit 3: Latest Calculation Formula

Latest Formula:

$$\begin{aligned} & ("Pop_AC_Score" + ("Em_AC_Score" + "NE_AC_Score") / 2 + "School_AC_Score" + "UniSC" \\ & + "Shop_AC_Score") / 5 + \\ & ((("Zero_HH_Score" + "Pov_Score" + "P1019SC" + "P55SC" + "MotherSC" + "DisabSC") / 6 + \\ & ("P2034SC" + "Bach_SC" + "SingleSC") / 3 + ("P3554SC" + "P55SC" + "Bach_SC" + "SingleSC") / 4) / 3 + \\ & ("Walkable_Score" + "HU17SC" + "SqftSC") / 3) * 4 / 3 \end{aligned}$$

Exhibit 4 – Data Table Elements

Number	Column Name	Description
1	fid	Field ID (not used)
2	GEOIDIO	US Census Geo-ID (primary identifier)
3	ALAND10	Area of Land
4	AWATER10	Area of Water
5	INTPTLAT10	Latitude
6	INTPTLONIO	Longitude
7	Pop	Population
8	Emp	Employment
9	Nonjndus	Non-Industrial Employment
10	Zero_HH	Zero-Car Households
11	Pov	Households in Poverty
12	Walkable	Is the Census Tract Walkable
13	Pop_AC	Population per Acre (using AAcres)
14	Em_AC	Employment per Acre (using AAcres)
15	NE_AC	Non-Industrial Employment per Acre (using AAcres)
16	Pop_AC_Score	Natural Breaks Score 1-5 for Population per Acre
17	Em_AC_Score	Natural Breaks Score 1-5 for Employment per Acre
18	NE_AC_Score	Natural Breaks Score 1-5 for Non-Industrial Employment per Acre
19	Walkable_Score	Walkability Score (Either a 0 or a 5)
20	Zero_HH_AC	Zero-Car Households per Acre (using AAcres)
21	Pov_AC	Households in Poverty per Acre (using AAcres)
22	Zero_HH_Score	Natural Breaks Score 1-5 for Zero Car Households per Acre
23	Pov_Score	Natural Breaks Score 1-5 for Households in Poverty per Acre
24	School	School Enrollment
25	School_AC	School Enrollment per Acre
26	School_AC_Score	Natural Breaks Score 1-5 for School Enrollment per Acre
27	Shop	Home-Based Shopping Trips
28	Shop_AC	Home-Based Shopping Trips per Acre
29	Shop_AC_Score	Natural Breaks Score 1-5 for Home-Based Shopping Trips per Acre
30	AAcre	Land Area in Acres
31	PP10JL9	Population 10-19 years of age
32	PP20_34	Population 20-34 years of age
33	PP35_54	Population 35-54 years of age
34	PP55	Population 55+ years of age
35	Bach%	Percent of Population with a Bachelor Degree
36	Bach_AC	Population with a Bachelor Degree per Acre
37	Bach_SC	Natural Breaks Score 1-5 for Population with a Bachelor Degree per Acre
38	P1019AC	Population 10-19 years of age per Acre
39	P3554AC	Population 35-54 years of age per Acre
40	P55AC	Population 55+ years of age per Acre
41	P2034AC	Population 20-34 years of age per Acre

Number	Column Name	Description
42	P1019SC	Natural Breaks Score 1-5 for Population 10-19 years of age per Acre
43	P2034SC	Natural Breaks Score 1-5 for Population 20-34 years of age per Acre
44	P3554SC	Natural Breaks Score 1-5 for Population 35-54 years of age per Acre
45	P55SC	Natural Breaks Score 1-5 for Population 55+ years of age per Acre
46	Disab%	Percent of Population Disabled
47	DisabAC	Population with a Disability per Acre
48	DisabSC	Natural Breaks Score 1-5 for Population with a Disability per Acre
49	Single	Percent of Population that is Single
50	Mother	Percent of Population that is a Single Mother
51	SingleAC	Single Population per Acre
52	MotherAC	Single Mother Population per Acre
53	SingleSC	Natural Breaks Score 1-5 for Single Population per Acre
54	MotherSC	Natural Breaks Score 1-5 for Single Mother Population per Acre
55	UniPop	University Population (including part-time/full-time enrollment and employment)
56	UniSC	Natural Breaks Score 1-5 for University Population (Note that this is NOT per acre)
57	SqftParcel	Square Feet of livable/workable space per parcel
58	Parcels	Number of Parcels
59	SqftAC	Square Feet of livable/workable parcel space per acre
60	SqftSC	Natural Breaks Score 1-5 for Square Feet of livable/workable parcel space per Acre
61	HU	Housing Units
62	HU_AC	Housing Units per Acre
63	HU_SC	Natural Breaks Score 1-5 for Housing Units per Acre
64	Total Score 3	Total Transit Propensity Score (latest score)

Attachment E
Route and Segment Performance

FY 2019 Quarter 3 - Route Performance Index (RPI)										
Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
754	754	Rapid	Athens - Hollywood via Vermont Ave	19,679	229.1	\$1.26	83.99	0.47	2.21	1
204	204	Local	Athens - Hollywood via Vermont Ave	19,370	275.2	\$1.70	69.02	0.38	1.73	2
207	207	Local	Athens - Hollywood via Western Ave	15,631	233.5	\$1.77	67.11	0.33	1.64	3
757	757	Rapid	Hawthorne - Hollywood via Western Av	11,367	194.0	\$2.14	58.59	0.50	1.60	4
200	200	Local	Echo Park - Exposition Park via Alvarado St & Hoover St	10,767	175.1	\$2.10	59.48	0.37	1.49	5
51	51,52, 351	Local	Downtown LA - Compton - Harbor Gateway Transit Center via Avalon Bl	22,847	414.6	\$2.43	53.40	0.47	1.46	6
175	175	Local	Silver Lake - Hollywood via Hyperion Av & Fountain Av	812	13.9	\$2.15	58.42	0.27	1.38	7
206	206	Local	Athens - Hollywood via Normandie Ave	10,805	197.9	\$2.43	53.37	0.38	1.37	8
18	18	Local	Wilshire Center - Montebello via Sixth St & Whittier Bl	17,181	320.0	\$2.54	51.51	0.41	1.36	9
111	111	Local	LAX to Norwalk via Florence Av	14,533	285.6	\$2.73	48.81	0.41	1.31	10
720	720	Rapid	Santa Monica - Commerce via Wilshire Bl & Whittier Bl	27,758	589.3	\$2.97	45.60	0.45	1.27	11
16	16, 17, 316	Local	16 Downtown LA - Century City via 3rd St 17 Downtown LA - Culver City Station via Robertson Bl.	20,082	426.6	\$2.91	46.42	0.43	1.27	12
66	66	Local	Wilshire Center - Montebello via Olympic Bl & 8th St	10,514	195.5	\$2.56	51.29	0.30	1.25	13
45	45	Local	Lincoln Heights - Rosewood via Broadway	13,654	282.6	\$2.93	46.19	0.41	1.24	14
53	53	Local	Downtown LA - CSU Dominguez Hills via Central Av	11,097	232.1	\$2.96	45.78	0.41	1.24	15
233	233	Local	Lake View Terrace - Sherman Oaks via Van Nuys Bl	10,625	200.7	\$2.55	51.48	0.28	1.23	16
108	108, 358	Local	Marina Del Rey - Pico Rivera via Stauson Av	14,594	332.2	\$3.20	42.98	0.42	1.20	17
60	60	Local	Downtown LA - Artesia Station via Long Beach Bl	13,572	300.5	\$3.19	43.06	0.42	1.19	18
901	901	Metroliner	Metro Orange Line: Warner Center - North Hollywood - Chatsworth Metrolink Station	21,886	345.9	\$5.92	60.07	0.45	1.19	19
105	105	Local	West Hollywood - Vernon via La Cienega Bl & Vernon Av	9,871	216.0	\$3.03	44.87	0.37	1.19	20

FY 2019 Quarter 3 - Route Performance Index (RPI)

Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
152	152, 353	Local	Woodland Hills - No. Hollywood Sta. via Roscoe Bl.	10,340	229.3	\$3.07	44.43	0.37	1.18	21
70	70	Local	Los Angeles - El Monte via Garvey Av	9,404	227.4	\$3.48	40.18	0.45	1.17	22
212	212, 312	Local	Hawthorne - Hollywood via La Brea	10,655	253.7	\$3.41	40.79	0.44	1.17	23
210	210	Local	South Bay Galleria - Hollywood via Crenshaw Bl	9,962	219.9	\$3.16	43.42	0.38	1.16	24
115	115	Local	Playa Del Rey - Norwalk via Manchester Av, Firestone Bl	13,653	302.8	\$3.10	44.09	0.35	1.14	25
603	603	Shuttle	Glendale Galleria - Grand Station via Hoover St. & Rampart Bl (PT)	6,700	187.9	\$3.15	35.33	0.41	1.12	26
710	710	Rapid	South Bay Galleria - Wilshire Center via Crenshaw Bl	6,301	152.9	\$3.53	39.72	0.40	1.11	27
81	81	Local	Eagle Rock - Exposition Park via Figueroa	12,885	297.8	\$3.28	42.12	0.35	1.11	28
14	14, 37	Local	14 Downtown LA - Beverly Hills via Beverly Bl 37 Downtown LA - Fairfax/Washington via Adams Bl	16,113	384.1	\$3.43	40.63	0.37	1.10	29
266	266	Local	Pasadena - Lakewood via Rosemead Bl & Lakewood Bl (PT)	4,540	129.4	\$3.27	34.26	0.38	1.06	30
40	40	Local	South Bay Galleria - Union Station via Hawthorne Bl, Crenshaw Bl & Wilshire Bl King Bl	13,648	322.9	\$3.45	40.41	0.33	1.06	31
251	251	Local	Cypress Park - Lynwood via Soto St	7,846	179.0	\$3.36	41.38	0.30	1.04	32
33	33	Local	Downtown LA - Santa Monica via Venice Bl	9,620	266.9	\$4.13	34.83	0.43	1.04	33
751	751	Rapid	Cypress Park - Huntington Park via Soto Street	4,498	112.0	\$3.48	40.16	0.32	1.03	34
76	76	Local	El Monte - Downtown LA via Valley Bl	8,168	225.4	\$4.03	35.59	0.41	1.03	35
20	20	Local	Downtown LA - Santa Monica via Wilshire Bl	12,258	304.2	\$3.76	37.72	0.36	1.03	36
224	224	Local	Sylmar-Universal City via San Fernando Rd, Lankershim Bl	6,583	160.1	\$3.50	40.01	0.31	1.03	37
705	705	Rapid	West Hollywood - Vernon via La Cienega Bl & Vernon Av	5,237	140.9	\$3.82	37.17	0.37	1.02	38
4	4	Local	Downtown LA - West LA - Santa Monica via Santa Monica Bl	13,983	365.2	\$3.90	36.53	0.38	1.02	39
770	770	Rapid	Los Angeles - El Monte via Cesar E Chavez Av & Garvey Av	6,361	178.8	\$4.13	34.83	0.41	1.02	40
910	910, 950	Metroliner	Metro Silver Line: El Monte - Downtown LA - Harbor Gateway Transit Center - San Pedro	15,717	414.2	\$3.93	36.29	0.38	1.02	41
10	10, 48	Local	10 Downtown LA - West Hollywood via Temple St & Melrose Av 48 Downtown LA - Avalon Station via Main St & South San Pedro St	11,142	285.6	\$3.79	37.43	0.35	1.01	42

FY 2019 Quarter 3 - Route Performance Index (RPI)

Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
744	744	Rapid	Reseda - Ventura -Van Nuys Blvds.	8,075	189.6	\$3.30	41.95	0.26	1.01	43
163	162, 163	Local	West Hills -Sun Valley - North Hollywood Via Sherman Way	8,569	212.5	\$3.69	38.31	0.31	0.99	44
605	605	Shuttle	LAC/USC Medical Ctr - Boyle Heights via Soto St, 4th St & Lorena St (PT)	2,089	54.9	\$3.09	35.88	0.26	0.99	45
110	110	Local	Playa Vista - Bell Gardens via Jefferson Bl - Gage Av	7,728	207.2	\$3.99	35.88	0.35	0.98	46
180	180, 181	Local	Pasadena - Hollywood via Colorado Bl and Hollywood Bl	7,524	212.6	\$4.19	34.42	0.38	0.98	47
55	55, 355	Local	Downtown LA - Imperial Station via Compton Av	6,921	175.6	\$3.80	37.38	0.32	0.98	48
165	165	Local	West Hills - Burbank via Vanowen St	7,575	188.7	\$3.75	37.78	0.31	0.98	49
68	68	Local	Downtown LA - Montebello via Cesar E. Chavez	4,771	125.0	\$3.80	37.37	0.31	0.98	50
30	30,330	Local	Downtown LA - Santa Monica Via Venice Bl	11,547	298.1	\$3.66	38.50	0.29	0.97	51
704	704	Rapid	Downtown LA - Santa Monica via Santa Monica Bl	9,800	274.9	\$4.00	35.78	0.34	0.97	52
117	117	Local	LAX City Bus Center - Downey via Century Bl, 103rd St, Tweedy Bl & Imperial Hwy	8,388	210.8	\$3.64	38.74	0.27	0.96	53
260	260	Local	Altadena - Artesia Station via Fair Oaks Av & Atlantic Bl	9,281	261.1	\$4.08	35.23	0.33	0.95	54
2	2, 302	Local	Downtown LA - Pacific Palisades via Sunset Bl	11,340	321.2	\$4.23	34.17	0.35	0.94	55
780	780	Rapid	Pasadena - West Los Angeles via Colorado Bl & Hollywood Bl	7,150	211.4	\$4.28	33.82	0.35	0.94	56
230	230	Local	San Fernando - Studio City via Laurel Canyon Bl	3,898	101.7	\$3.96	36.06	0.29	0.92	57
234	234	Local	Sherman Oaks - Sylmar via Sepulveda Bl & Brand Bl	5,028	151.7	\$4.62	31.67	0.37	0.92	58
745	745	Rapid	Downtown Los Angeles - Harbor Freeway Station via Broadway	6,038	171.9	\$4.23	34.14	0.31	0.91	59
90	90, 91	Local	Los Angeles - Sunland via Foothill Bl, Cañada Bl and Glendale Av	6,645	220.7	\$5.04	29.40	0.40	0.91	60
28	28	Local	Century City - Downtown LA - Eagle Rock via Olympic	8,186	228.4	\$4.16	34.60	0.30	0.91	61
760	760	Rapid	Downtown LA - Lynwood via Long Beach Bl	4,273	130.1	\$4.58	31.88	0.34	0.90	62
733	733	Rapid	Downtown LA - Santa Monica via Venice Bl	7,436	230.0	\$4.65	31.52	0.34	0.89	63

FY 2019 Quarter 3 - Route Performance Index (RPI)

Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
728	728	Rapid	Downtown LA - Century City via Olympic Bl	5,421	166.6	\$4.48	32.54	0.32	0.89	64
35	35, 38	Local	35 Downtown LA - Fairfax/Washington via Washington Bl 38 Downtown LA - Fairfax/Washington via Jefferson Bl	7,547	206.3	\$4.14	34.76	0.26	0.88	65
150	150, 240	Local	Canoga Park - Universal City via Ventura Bl. / Northridge via Reseda Bl	7,970	241.4	\$4.45	32.73	0.30	0.87	66
734	734	Rapid	Sherman Oaks - Sylmar/San Fernando Station via Sepulveda Bl. - Brand Bl. - Truman St.	5,770	185.6	\$4.72	31.09	0.33	0.86	67
166	166, 364	Local	Chatsworth - Pacoima via Nordhoff St & Osborne St	5,376	151.5	\$4.36	33.29	0.25	0.84	68
125	125	Local	Plaza El Segundo - Norwalk Station via Rosecrans Av (PT)	4,419	147.0	\$4.08	28.52	0.27	0.83	69
92	92	Local	Sylmar Station to Downtown Los Angeles via Glenoaks Bl, Brand Bl, Glendale Bl, Temple St, Spring St and Main St	5,406	185.7	\$5.34	27.94	0.34	0.82	70
217	217	Local	Hollywood/Vine Station - Culver City Transit Center via Hollywood - Fairfax	5,938	194.5	\$4.86	30.30	0.30	0.82	71
252	252	Local	Montecito Heights - Boyle Heights via Soto St.	2,038	53.1	\$4.08	35.23	0.19	0.81	72
164	164	Local	West Hills - Burbank via Victory Bl.	5,667	168.2	\$4.73	31.06	0.27	0.81	73
794	794	Rapid	Downtown Los Angeles - Burbank Station via San Fernando Rd, Brand Bl	3,806	140.3	\$5.52	27.13	0.34	0.80	74
762	762	Rapid	Pasadena - Artesia Blue Line Station via Fair Oaks & Atlantic	3,555	129.2	\$5.43	27.52	0.33	0.80	75
62	62	Local	Downtown LA - Hawaiian Gardens via Telegraph Rd	3,980	159.8	\$6.27	24.25	0.38	0.79	76
460	460	Express	Downtown LA - Disneyland via Harbor Transit way & I-105 Fwy	4,539	211.5	\$7.55	20.51	0.44	0.79	77
788	788	Express	Valley-Westside Express	1,826	71.8	\$5.94	25.43	0.33	0.76	78
94	94	Local	Sylmar - Downtown L.A. via San Fernando Rd & Hill St	4,100	155.5	\$5.75	26.18	0.30	0.75	79
236	236	Local	Sylmar Station - Encino via Balboa	1,467	49.2	\$5.39	27.73	0.26	0.74	80
246	246	Local	San Pedro - Harbor Gateway Transit Center via Avalon Bl	2,379	84.7	\$5.74	26.21	0.28	0.73	81
71	71	Local	Downtown LA - Cal State LA via Wabash Av & City Terrace Dr	1,526	51.6	\$5.63	26.68	0.26	0.72	82
232	232	Local	Long Beach - LAX via Pacific Coast Hwy & Sepulveda Bl (PT)	4,380	192.5	\$5.42	22.35	0.28	0.71	83
158	158	Local	Chatsworth Metrolink Station - Sherman Oaks via Devonshire St. & Woodman Av	1,927	58.9	\$5.19	28.63	0.21	0.71	84

FY 2019 Quarter 3 - Route Performance Index (RPI)

Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
205	205	Local	Imperial/Wilmington Sta. - San Pedro via Wilmington Av, Vermont Av & Western Av (PT)	3,440	144.7	\$5.33	22.70	0.27	0.70	85
78	78, 79, 378	Local	Arcadia - Los Angeles via Huntington Dr & Las Tunas Dr	8,239	346.9	\$6.29	24.17	0.29	0.70	86
258	258	Local	Altadena - Paramount via Lake - Fremont - Eastern	2,435	102.0	\$6.38	23.87	0.29	0.70	87
177	177	Local	JPL - Pasadena via I-210 & California Bl (PT)	373	15.5	\$4.98	24.06	0.22	0.69	88
245	244, 245	Local	Woodland Hills - Chatsworth via Topanga Canyon Bl & De Soto Av	2,546	81.6	\$4.96	29.81	0.17	0.69	89
487	487, 489	Express	El Monte Station - Sierra Madre Villa Station - Downtown LA	3,410	145.4	\$7.11	21.68	0.31	0.68	90
127	127	Local	Compton Station - Downey via Compton Bl & Somerset Bl	793	28.6	\$5.39	27.73	0.19	0.67	91
169	169	Local	Warner Center - Burbank Airport via Valley Circle	2,086	85.2	\$6.20	24.48	0.25	0.66	92
601	601	Shuttle	Warner Center Circulator	957	74.8	\$5.55	21.90	0.24	0.66	93
602	602	Local	Westwood - Pacific Palisades via Sunset Blvd.	1,901	77.0	\$5.55	21.90	0.24	0.66	94
243	242, 243	Local	Porter Ranch - Woodland Hills via Tampa Av. & Winnetka Av.	1,539	52.9	\$5.50	27.24	0.18	0.65	95
130	130	Local	Redondo Beach - Cerritos via Artesia Bl (PT)	2,342	106.6	\$5.85	20.92	0.25	0.65	96
265	265	Local	Pico Rivera - Lakewood Center Mall via Paramount Bl	1,305	50.6	\$6.46	23.61	0.24	0.65	97
183	183	Local	Sherman Oaks - Glendale via Magnolia Bl	1,590	68.8	\$6.79	22.58	0.26	0.64	98
120	120	Local	Aviation Station - Whitewood Mall via Imperial Hwy	3,444	137.2	\$6.50	23.50	0.23	0.63	99
167	167	Local	Chatsworth Metrolink Sta - Studio City via Plummer St & Coldwater Cyn Av (PT)	2,096	89.9	\$5.75	21.23	0.22	0.63	100
128	128	Local	Compton - Cerritos via Alondra Bl (PT)	964	47.8	\$6.09	20.17	0.24	0.62	101
102	102	Local	LAX City Bus Center - South Gate Vis La Tijera-Exposition	2,312	89.6	\$6.46	23.63	0.22	0.62	102
83	83	Local	Eagle Rock - Downtown LA via York	2,333	95.6	\$6.65	23.02	0.23	0.62	103
750	750	Rapid	Warner Center - Universal City via Ventura Bl	2,598	120.1	\$7.12	21.63	0.25	0.62	104

FY 2019 Quarter 3 - Route Performance Index (RPI)

Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
550	550	Express	Exposition Park / USC - San Pedro via Harbor Transitway	1,320	60.3	\$7.66	20.24	0.27	0.61	105
201	201	Local	Glendale - Koreatown via Silver Lake Bl	946	44.5	\$7.58	20.44	0.26	0.60	106
161	161	Local	Thousand Oaks - Agoura Hills - Calabasas - Warner Center	1,068	55.6	\$8.66	18.09	0.29	0.60	107
218	218	Local	Studio City - Beverly Hills via Laurel Canyon Bl (PT)	846	50.0	\$7.62	16.50	0.29	0.60	108
267	264, 267	Local	264 Duarte - Altadena via Duarte Rd & Altadena Dr 267 Altadena - El Monte via Temple City Bl & Lincoln Av	2,731	115.1	\$6.96	22.08	0.22	0.59	109
611	611	Shuttle	Huntington Park Shuttle	1,460	56.4	\$6.60	23.15	0.19	0.59	110
344	344	Local	Harbor Gateway Transit Center - Palos Verdes via Hawthorne Bl	1,352	64.0	\$7.74	20.06	0.25	0.59	111
254	254	Local	Boyle Heights - Watts via Boyle Av & Lorena St) (PT)	708	37.3	\$6.87	18.11	0.24	0.58	112
155	155	Local	Sherman Oaks - Burbank Station via Riverside Dr, Olive Av	1,311	55.9	\$7.35	21.02	0.23	0.58	113
740	740	Rapid	EXPO/Crenshaw Station - South Bay Galleria via Hawthorne	2,214	99.1	\$7.13	21.61	0.21	0.57	114
96	96	Local	Downtown LA - Burbank Station via Griffith Pk Dr & Riverside Dr (PT)	1,255	85.7	\$8.79	14.48	0.30	0.56	115
534	534	Express	Malibu - Washington / Fairfax Transit Hub via Pacific Coast Hwy	1,360	80.4	\$9.55	16.54	0.27	0.54	116
256	256	Local	Commerce - Altadena via Eastern Av & Hill Av (PT)	1,390	81.7	\$8.10	15.61	0.25	0.54	117
239	239	Local	Encino - Sylmar/San Fernando Metrolink Station via White Oak Av, Rinaldi St	859	47.4	\$8.65	18.12	0.22	0.52	118
176	176	Local	Highland Park - Montebello Via Mission-Tyler - Rush	1,439	73.5	\$7.95	19.58	0.19	0.52	119
237	237, 656	Local	656 Owl Service Hollywood - Panorama City via Cahuenga, Chandler and Van Nuys	1,913	92.3	\$8.36	18.70	0.21	0.52	120
154	154	Local	Tarzana - Burbank via Burbank Bl & Oxnard St	753	40.4	\$8.39	18.64	0.20	0.51	121
222	222	Local	Sun Valley - Hollywood via Hollywood Way	1,226	63.9	\$8.95	17.57	0.22	0.51	122
665	665	Shuttle	Cal State LA - City Terrace Shuttle	618	26.8	\$7.20	21.42	0.14	0.51	123
577	577	Express	El Monte Station - Long Beach VA Medical Center via I-605 Fwy (PT)	855	63.8	\$9.56	13.40	0.25	0.50	124
442	442	Express	Hawthorne - Union Station via Hawthorne Bl, La Brea Av, Manchester Bl. & Harbor Transitway	169	11.8	\$11.15	14.32	0.25	0.49	125

FY 2019 Quarter 3 - Route Performance Index (RPI)

Lines	Routes	Service Type	Line Name	DX Boardings	December 2018 Service Change Daily RSH	Subsidy per Brdg.	Brdgs per RSH (DX,SA,&SU)	Pass. Miles per Seat Mile	RPI	Ranking
612	612	Shuttle	South Gate Shuttle	1,088	53.7	\$8.41	18.59	0.15	0.46	126
501	501	Express	NOHO to Pasadena Shuttle	1,390	80.4	\$9.36	13.66	0.21	0.46	127
268	268	Local	La Cañada Flintridge - El Monte via Baldwin Av & Washington Bl	1,579	87.0	\$8.96	17.54	0.16	0.46	128
209	209	Local	Athens - Wilshire Center via Van Ness Ave & Arlington Ave	725	43.9	\$9.57	16.51	0.17	0.45	129
625	625	Shuttle	Green Line Shuttle - World Way West (PT)	312	18.7	\$7.52	16.68	0.12	0.43	130
211	211, 215	Local	South Bay Galleria - Redondo Beach via Prairie Av, Inglewood Av	577	33.0	\$8.99	17.48	0.11	0.41	131
687	686, 687	Shuttle	Altadena - Pasadena - Colorado Bl & Allen Av; Los Robles Av & Fair Oaks Av	1,147	63.0	\$9.47	16.68	0.09	0.37	132
685	685	Shuttle	Glendale - Glassell Park via Verdugo Rd	463	29.7	\$10.18	15.59	0.08	0.35	133
202	202	Local	Willowbrook to Wilmington via Alameda	225	19.2	\$13.80	11.72	0.12	0.32	134
106	106	Local	USC Medical Center to ELAC Transit Center	379	29.5	\$12.52	12.85	0.10	0.32	135
126	126	Local	Manhattan Beach - Hawthorne Station via Manhattan Beach Bl	169	13.7	\$13.07	12.34	0.10	0.31	136
607	607	Shuttle	Windsor Hills - Inglewood Shuttle (PT)	57	9.1	\$21.32	6.26	0.06	0.18	137

*Contracted Lines highlighted in yellow

Metro Bus Network Corridor Segment Performance

	Segment Description	Boardings per Route Mile		Pass Miles per Route Mile		Seat Utilization		Boardings per Revenue Hour		Trips per Day		Overall Score
		Total	Percentile	Total	Percentile	Total	Percentile	Total	Percentile	Total	Percentile	
1	Wilshire/Fairfax to Wilshire/Vermont	3,446	72%	16,324	100%	0.64	74%	67.1	65%	500	100%	82.1%
2	Vermont/Expo to Vermont/Wilshire	4,340	91%	12,742	78%	0.58	67%	87.9	85%	384	77%	79.4%
3	Van Nuys Orange Sta to NoHo Sta	2,586	54%	13,989	86%	0.67	77%	103.0	99%	367	73%	77.8%
4	Vermont/Wilshire to Vermont/Sunset	4,779	100%	8,168	50%	0.37	43%	102.3	99%	384	77%	73.6%
5	Vermont/Florence to Vermont/Expo	3,298	69%	10,680	65%	0.49	56%	82.0	79%	384	77%	69.2%
6	Western/Expo to Western/Wilshire	3,198	67%	8,302	51%	0.57	65%	84.7	82%	298	60%	64.8%
7	Santa Monica/Fairfax to Santa Monica/Vermont	2,858	60%	8,636	53%	0.53	61%	77.0	74%	327	65%	62.6%
8	3rd/Vermont to 6th/St. Paul	3,019	63%	7,316	45%	0.56	64%	76.8	74%	321	64%	62.1%
9	San Pedro/Washington to 7th/Flower	3,001	63%	6,962	43%	0.67	76%	75.8	73%	261	52%	61.4%
10	Hoover/Washington to Alvarado/Wilshire	3,507	73%	4,507	28%	0.58	66%	96.7	93%	195	39%	59.9%
11	Wilshire/Westwood to Wilshire/Fairfax	1,600	33%	12,510	77%	0.48	55%	31.8	31%	500	100%	59.2%
12	Reseda Orange Sta to Van Nuys Orange Sta	1,174	25%	11,462	70%	0.55	63%	59.0	57%	367	73%	57.6%
13	Van Nuys Sta to Nordhoff	2,620	55%	6,490	40%	0.46	53%	88.9	86%	246	49%	56.5%
14	Broadway/Florence to Broadway/Washington	1,935	40%	8,076	49%	0.56	65%	62.2	60%	334	67%	56.3%
15	Western/Florence to Western/Expo	2,234	47%	6,756	41%	0.46	53%	76.1	73%	298	60%	54.8%
16	Pico/Vermont to Pico/Figueroa	2,376	50%	5,105	31%	0.54	62%	82.5	80%	234	47%	53.8%
17	San Vicente/Gracie Allen to 3rd/Vermont	1,973	41%	6,845	42%	0.52	60%	54.8	53%	322	64%	52.1%
18	6th/Vermont to St. Paul	2,542	53%	3,929	24%	0.45	52%	88.5	85%	215	43%	51.4%
19	Vermont/Slauson to Slauson Sta	1,684	35%	4,649	28%	0.64	73%	85.9	83%	182	36%	51.2%
20	Avalon/Florence to San Pedro/Washington	1,740	36%	5,654	35%	0.62	71%	69.8	67%	227	45%	51.0%
21	6th/St. Paul to 6th/Alameda	2,429	51%	5,391	33%	0.31	35%	69.2	67%	310	62%	49.5%
22	6th/St. Paul to Alameda	2,500	52%	4,891	30%	0.54	62%	59.3	57%	222	44%	49.2%
23	Olympic/Vermont to Olympic/Figueroa	1,976	41%	4,985	31%	0.44	50%	79.9	77%	234	47%	49.2%
24	Culver City Sta to Venice/Fairfax	1,464	31%	7,407	45%	0.59	67%	49.5	48%	269	54%	48.9%
25	8th/Vermont to Garland	1,917	40%	3,809	23%	0.43	50%	103.8	100%	154	31%	48.8%
26	Crenshaw/Florence to Crenshaw/Expo	1,453	30%	5,779	35%	0.59	68%	65.9	64%	230	46%	48.6%
27	Flower/Adams to Alameda Union Sta	1,496	31%	7,332	45%	0.55	63%	43.5	42%	290	58%	47.8%
28	Wilshire/Vermont to 6th/St. Paul	1,887	39%	7,157	44%	0.40	46%	49.0	47%	312	62%	47.8%
29	Sunset/Fairfax to Sunset/Vermont	1,705	36%	4,871	30%	0.56	65%	67.4	65%	210	42%	47.4%
30	Venice/Fairfax to Venice/Vermont	1,255	26%	7,037	43%	0.55	63%	50.3	48%	269	54%	47.0%
31	Florence/Vermont to Florence Sta	1,551	32%	4,052	25%	0.54	62%	84.5	81%	169	34%	46.9%
32	Long Beach Bl Sta to Pacific/Slauson	1,801	38%	5,339	33%	0.43	50%	54.9	53%	308	62%	46.9%
33	Manchester/Vermont to Firestone Sta	1,590	33%	3,490	21%	0.51	58%	92.5	89%	154	31%	46.5%
34	7th/Flower to Wilshire/Vermont	2,346	49%	3,989	24%	0.39	45%	64.4	62%	255	51%	46.3%
35	Whittier/Indiana to Atlantic	1,419	30%	4,528	28%	0.56	64%	72.0	69%	200	40%	46.1%
36	Vermont/120th to Vermont/Florence	1,904	40%	5,449	33%	0.25	29%	53.9	52%	384	77%	46.1%
37	Slauson Sta to Slauson/Atlantic	1,298	27%	4,611	28%	0.63	73%	68.0	66%	182	36%	46.0%
38	Alvarado/Wilshire to Sunset/Echo Park	2,446	51%	2,986	18%	0.38	44%	80.4	77%	195	39%	46.0%
39	Alameda Union Sta to El Monte Bus Sta	439	9%	7,238	44%	0.54	62%	53.3	51%	289	58%	45.0%
40	Crenshaw/Slauson to Vermont/Slauson	1,412	30%	3,987	24%	0.55	63%	71.9	69%	182	36%	44.5%
41	5th/Colorado to Wilshire/Westwood	1,407	29%	6,249	38%	0.25	29%	31.8	31%	466	93%	44.0%
42	De Soto Orange Sta to Reseda Orange Sta	859	18%	7,608	47%	0.37	42%	42.1	41%	365	73%	44.0%
43	Central/Florence to Central/Washington	1,339	28%	3,937	24%	0.60	68%	71.0	68%	157	31%	44.0%
44	Florence Sta to Florence/Eastern	1,386	29%	4,108	25%	0.55	63%	70.5	68%	169	34%	43.8%
45	Harbor Gateway Transit Ctr to Harbor Fwy Sta	550	12%	6,106	37%	0.46	52%	60.4	58%	290	58%	43.5%
46	1st/Beaudry to Beverly/Vermont	1,452	30%	3,887	24%	0.47	54%	70.7	68%	204	41%	43.4%
47	Pico/Rimpau to Pico/Vermont	1,783	37%	3,721	23%	0.39	45%	66.4	64%	234	47%	43.2%
48	Sepulveda Orange Line Sta to Nordhoff	1,313	27%	4,295	26%	0.44	50%	72.2	70%	195	39%	42.5%

	Segment Description	Boardings per Route Mile		Pass Miles per Route Mile		Seat Utilization		Boardings per Revenue Hour		Trips per Day		Overall Score
		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
49	Crenshaw Sta to Crenshaw/Florence	1,133	24%	5,123	31%	0.52	60%	53.1	51%	230	46%	42.4%
50	Wilshire/Vermont to Wilshire/Figueroa	1,738	36%	3,646	22%	0.47	54%	64.1	62%	184	37%	42.3%
51	6th/St. Paul to Maple/6th	2,620	55%	3,406	21%	0.26	30%	42.3	41%	321	64%	42.1%
52	Harbor Fwy Sta to Flower/Adams	346	7%	8,415	52%	0.63	72%	22.0	21%	290	58%	42.1%
53	Venice/Vermont to Venice/Figueroa	1,420	30%	4,910	30%	0.39	44%	51.7	50%	269	54%	41.6%
54	8th/Garland to Olympic/Alameda	1,538	32%	4,224	26%	0.48	55%	62.6	60%	154	31%	40.9%
55	Crenshaw/MLK to Broadway/Washington	1,019	21%	4,345	27%	0.51	59%	66.2	64%	151	30%	40.1%
56	Harbor Fwy Sta to Broadway/Florence	1,361	28%	3,813	23%	0.27	31%	50.9	49%	330	66%	39.5%
57	Pacific/Slauson to Santa Fe/Olympic	800	17%	5,977	37%	0.48	55%	27.6	27%	308	62%	39.4%
58	Normandie/Expo to Normandie/Wilshire	1,118	23%	3,261	20%	0.54	62%	65.1	63%	138	28%	39.2%
59	Avalon Sta to Avalon/Florence	1,131	24%	4,246	26%	0.42	48%	49.3	47%	251	50%	39.2%
60	Western/Wilshire to Franklin/Western	1,571	33%	2,960	18%	0.32	37%	77.8	75%	161	32%	39.0%
61	Figueroa/Florence to Expo Park/USC Sta	983	21%	3,764	23%	0.52	60%	60.6	58%	158	32%	38.7%
62	Soto/Olympic to Marengo/Cummings	1,005	21%	2,490	15%	0.50	57%	80.7	78%	112	22%	38.6%
63	Nordhoff/Reseda to Van Nuys	657	14%	2,950	18%	0.60	69%	71.5	69%	115	23%	38.5%
64	Garvey/Rosemead to El Monte Sta	1,305	27%	3,641	22%	0.34	39%	51.6	50%	270	54%	38.4%
65	Broadway/Washington to Broadway/Cesar E Chavez	1,384	29%	3,602	22%	0.50	57%	49.9	48%	179	36%	38.4%
66	La Brea/Expo to Hollywood/Orange	1,081	23%	3,774	23%	0.55	62%	50.0	48%	173	35%	38.2%
67	6th/Alameda to Whittier/Indiana	1,007	21%	4,173	26%	0.50	58%	47.1	45%	204	41%	38.1%
68	Santa Monica/Wilshire to Santa Monica/Fairfax	977	20%	6,006	37%	0.37	42%	26.4	25%	327	65%	38.1%
69	Adams/Vermont to Adams/Figueroa	1,133	24%	3,876	24%	0.50	58%	49.0	47%	189	38%	38.0%
70	Western/Wilshire to Hollywood/Western Sta	1,149	24%	2,595	16%	0.47	54%	70.8	68%	137	27%	38.0%
71	Spring/Cesar E Chavez to Huntington/Maycrest	705	15%	4,411	27%	0.61	69%	43.5	42%	182	36%	37.9%
72	Van Nuys/Nordhoff to Glenoaks	1,182	25%	4,291	26%	0.31	35%	54.8	53%	246	49%	37.6%
73	Westlake/MacArthur Sta to Sunset/Alvarado	911	19%	2,307	14%	0.67	77%	53.4	51%	129	26%	37.6%
74	Manchester/Crenshaw to Manchester/Vermont	1,025	21%	3,298	20%	0.48	55%	61.7	59%	152	30%	37.4%
75	Spring/Cesar E Chavez to Marengo/City Terrace	710	15%	3,718	23%	0.61	70%	49.5	48%	151	30%	37.2%
76	Expo Park/USC Sta to Figueroa/Washington	992	21%	3,705	23%	0.51	59%	51.8	50%	158	32%	36.8%
77	Florence/Crenshaw to Florence/Vermont	1,027	21%	3,105	19%	0.42	48%	64.4	62%	169	34%	36.8%
78	Vernon Sta to Vernon/Vermont	1,065	22%	2,187	13%	0.43	49%	75.3	73%	127	25%	36.6%
79	Cesar Chavez/Vignes to Atlantic/Riggin	588	12%	2,865	18%	0.60	69%	59.5	57%	119	24%	36.0%
80	Vanowen/Reseda to Van Nuys	634	13%	2,451	15%	0.54	62%	70.4	68%	107	21%	36.0%
81	ML King/Crenshaw to La Cienega/Jefferson	985	21%	3,857	24%	0.44	50%	42.9	41%	220	44%	36.0%
82	Vernon/Vermont to ML King/Crenshaw	846	18%	2,564	16%	0.50	58%	62.8	61%	127	25%	35.4%
83	Soto/Olympic to Soto Sta	790	17%	2,370	15%	0.47	54%	72.6	70%	110	22%	35.4%
84	Manchester/Market to La Brea/Expo	730	15%	3,321	20%	0.54	62%	49.4	48%	153	31%	35.2%
85	Firestone Sta to Manchester/Garfield	819	17%	3,158	19%	0.46	52%	57.3	55%	154	31%	35.0%
86	NoHo Sta to Lankershim/San Fernando	836	17%	2,644	16%	0.44	51%	65.5	63%	135	27%	34.9%
87	Roscoe/Reseda to Van Nuys	611	13%	2,911	18%	0.54	62%	59.2	57%	126	25%	34.9%
88	Melrose/Vermont to Temple/Figueroa	914	19%	2,724	17%	0.47	53%	57.7	56%	146	29%	34.8%
89	Main/Cesar E Chavez to Indiana	890	19%	2,332	14%	0.51	58%	61.8	60%	115	23%	34.7%
90	Beverly/Vermont to Beverly/La Cienega	966	20%	3,391	21%	0.41	47%	45.6	44%	204	41%	34.5%
91	Wilshire/Western to 8th/Vermont	1,649	35%	1,802	11%	0.21	24%	75.1	72%	154	31%	34.4%
92	Crenshaw/Florence to Crenshaw/MLK	991	21%	4,063	25%	0.34	39%	41.4	40%	235	47%	34.4%
93	Garvey/Atlantic to Rosemead	834	17%	2,833	17%	0.47	54%	55.4	53%	151	30%	34.4%
94	Normandie/Wilshire to Fountain/Vermont	1,156	24%	2,048	13%	0.34	39%	70.8	68%	138	28%	34.3%
95	Compton/Florence to Grand/Washington	751	16%	2,250	14%	0.51	58%	63.5	61%	111	22%	34.2%
96	Crenshaw/Expo to Crenshaw/Wilshire	711	15%	2,645	16%	0.51	58%	57.8	56%	115	23%	33.6%
97	Ave 26/Figueroa to San Fernando/Los Feliz	564	12%	3,601	22%	0.52	59%	45.6	44%	155	31%	33.6%
98	Valley/Atlantic to Rosemead	804	17%	2,700	17%	0.48	55%	52.8	51%	140	28%	33.5%

	Segment Description	Boardings per Route Mile		Pass Miles per Route Mile		Seat Utilization		Boardings per Revenue Hour		Trips per Day		Overall Score
		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
99	Figueroa/Washington to Hill/Cesar E Chavez	996	21%	2,876	18%	0.40	45%	53.1	51%	159	32%	33.4%
100	Broadway/Washington to Union Sta	1,291	27%	3,816	23%	0.24	28%	28.2	27%	306	61%	33.3%
101	Harbor Fwy Sta to Figueroa/Florence	939	20%	2,038	12%	0.28	33%	73.1	70%	157	31%	33.3%
102	Florence Sta to Gage/Eastern	711	15%	2,152	13%	0.48	56%	61.3	59%	111	22%	33.0%
103	Hill/Venice to Hill/Ord	1,317	28%	2,889	18%	0.26	30%	41.2	40%	249	50%	32.9%
104	Fairfax/Wilshire to Hollywood/Fairfax	986	21%	2,621	16%	0.44	50%	49.4	48%	149	30%	32.9%
105	Chatsworth Orange Sta to De Soto Orange Sta	804	17%	2,959	18%	0.23	26%	57.9	56%	237	47%	32.8%
106	Cesar E Chavez/Indiana to Riggin/Atlantic	762	16%	2,134	13%	0.46	53%	60.8	59%	115	23%	32.7%
107	Adams/Figueroa to 1st/Beaudry	1,132	24%	2,988	18%	0.36	41%	40.6	39%	204	41%	32.6%
108	Washington/Figueroa to Washington/Vermont	896	19%	2,470	15%	0.39	44%	54.9	53%	159	32%	32.5%
109	Hawthorne/Lennox Sta to Crenshaw/Florence	936	20%	3,686	23%	0.31	36%	39.1	38%	235	47%	32.5%
110	Santa Fe/Olympic to Sunset/Figueroa	1,078	23%	2,819	17%	0.35	41%	43.4	42%	199	40%	32.4%
111	Century/Vermont to Watts Tower Sta	811	17%	2,060	13%	0.41	47%	65.0	63%	114	23%	32.4%
112	Santa Monica/Vermont to Grand/Temple	806	17%	3,356	21%	0.39	45%	44.0	42%	187	37%	32.4%
113	Washington Fairfax TC to Adams/Vermont	936	20%	2,450	15%	0.32	36%	54.3	52%	189	38%	32.2%
114	23rd/Figueroa to Westlake/MacArthur Sta	887	19%	1,680	10%	0.49	56%	51.8	50%	129	26%	32.2%
115	Florence/Seville to Soto/Olympic	613	13%	2,634	16%	0.52	60%	50.3	48%	112	22%	32.0%
116	Ventura/Van Nuys to Universal/Studio City Sta	730	15%	3,665	22%	0.33	38%	35.6	34%	246	49%	31.9%
117	Grand/Washington to Florence/Compton	161	3%	483	3%	0.60	69%	82.7	80%	20	4%	31.8%
118	Victory/Van Nuys to Lankershim	531	11%	2,027	12%	0.49	56%	62.0	60%	97	19%	31.7%
119	Sherman Way/Reseda to Van Nuys	609	13%	2,725	17%	0.46	53%	50.2	48%	137	27%	31.6%
120	Wilshire/Figueroa to Maple/7th	1,766	37%	1,625	10%	0.21	24%	51.2	49%	184	37%	31.4%
121	Hollywood/Highland to Vermont/Prospect	681	14%	2,111	13%	0.43	50%	61.0	59%	108	22%	31.4%
122	Avalon Sta to Central/Florence	734	15%	2,598	16%	0.39	45%	50.8	49%	157	31%	31.3%
123	Main/Venice to San Pedro/Florence	725	15%	2,585	16%	0.46	53%	46.1	44%	141	28%	31.2%
124	Reseda/Nordhoff to Reseda Sta	548	11%	2,171	13%	0.39	45%	69.3	67%	97	19%	31.2%
125	Montana/Glendale to Cesar Chavez/Grand	727	15%	2,685	16%	0.37	42%	48.0	46%	178	36%	31.1%
126	Roscoe/Van Nuys to Tuxford/Lankershim	476	10%	2,613	16%	0.48	55%	50.9	49%	126	25%	31.1%
127	Atlantic/Everington to Atlantic/Valley	632	13%	2,099	13%	0.43	50%	60.2	58%	109	22%	31.1%
128	Arden Pl to Melrose/Vermont	906	19%	2,123	13%	0.35	41%	54.2	52%	150	30%	31.0%
129	Broadway/Cesar E Chavez to Broadway/Thomas	914	19%	2,366	14%	0.33	38%	49.6	48%	177	35%	30.9%
130	Warner Ctr Sta to De Soto Orange Sta	1,038	22%	2,312	14%	0.17	20%	53.3	51%	235	47%	30.9%
131	Century/Crenshaw to Century/Vermont	616	13%	2,266	14%	0.45	52%	55.1	53%	113	23%	30.9%
132	Olympic/Fairfax to Olympic/Vermont	553	12%	2,727	17%	0.44	51%	54.3	52%	114	23%	30.8%
133	Normandie/Florence to Normandie/Expo	678	14%	2,494	15%	0.41	47%	51.3	49%	141	28%	30.7%
134	Hill/Ord to San Fernando/Glendale	316	7%	2,619	16%	0.62	71%	41.0	40%	96	19%	30.5%
135	Temple/Figueroa to Main/Venice	935	20%	2,447	15%	0.43	49%	41.4	40%	143	29%	30.4%
136	Valley/Rosemead to El Monte Sta	756	16%	2,144	13%	0.38	44%	52.9	51%	140	28%	30.4%
137	Vernon Sta to Vermont Ave	656	14%	1,520	9%	0.39	45%	66.7	64%	97	19%	30.3%
138	Vermont/Prospect to Broadway/Central	544	11%	2,479	15%	0.53	61%	42.1	41%	116	23%	30.3%
139	Avalon Florence to San Pedro/Washington	228	5%	830	5%	0.61	70%	67.1	65%	34	7%	30.2%
140	Washington/Vermont to Washington Fairfax TC	862	18%	2,049	13%	0.32	37%	53.8	52%	159	32%	30.2%
141	Sunset/Vermont to Montana/Glendale	836	17%	3,061	19%	0.34	39%	33.0	32%	218	44%	30.2%
142	Central/Washington to Beaudry/4th	979	20%	2,351	14%	0.36	41%	44.8	43%	157	31%	30.0%
143	Gage/Vermont to Florence Sta	604	13%	1,942	12%	0.44	50%	55.0	53%	111	22%	30.0%
144	Main/Grand to Culver City Sta	535	11%	2,998	18%	0.45	52%	45.9	44%	118	24%	29.9%
145	Vermont Ave to ML King/Crenshaw	407	9%	2,031	12%	0.52	60%	50.9	49%	97	19%	29.9%
146	Crenshaw/Expo to Wilshire/Western Sta	676	14%	1,972	12%	0.43	49%	51.9	50%	115	23%	29.7%
147	Pico/Figueroa to Temple/Alameda	1,221	26%	2,463	15%	0.26	30%	31.9	31%	234	47%	29.6%
148	Olympic/Alameda to Indiana	775	16%	2,835	17%	0.32	37%	46.7	45%	154	31%	29.3%

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		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
149	Glendale/San Fernando to Verdugo/Honolulu	403	8%	2,265	14%	0.51	59%	46.8	45%	100	20%	29.2%
150	Sepulveda/Ventura to Sepulveda Orange Line Sta	655	14%	3,285	20%	0.33	38%	36.7	35%	195	39%	29.2%
151	Sunset/Alvarado to Fletcher/San Fernando	340	7%	2,192	13%	0.64	73%	27.1	26%	129	26%	29.2%
152	Hollywood/Vine Sta to Vermont/Prospect	830	17%	1,636	10%	0.35	40%	56.8	55%	116	23%	29.1%
153	Crenshaw/Redondo Beach to Crenshaw Sta	494	10%	2,002	12%	0.44	50%	52.0	50%	115	23%	29.1%
154	Atlantic/Imperial to Atlantic/Everington	555	12%	2,195	13%	0.45	52%	48.5	47%	109	22%	29.1%
155	Lakewood Sta to Rosemead/Telegraph	385	8%	1,325	8%	0.49	57%	61.4	59%	67	13%	29.1%
156	Spring/Cesar E Chavez to Main/Mission	451	9%	2,788	17%	0.50	57%	34.6	33%	140	28%	29.0%
157	Broadway/Central to Colorado/Eagle Rock	596	12%	2,037	12%	0.44	50%	48.0	46%	116	23%	28.9%
158	Hawthorne/Lennox Sta to Manchester/Market	710	15%	2,005	12%	0.33	38%	50.7	49%	153	31%	28.8%
159	Sherman Way/Van Nuys to Lankershim	583	12%	2,432	15%	0.41	47%	43.7	42%	137	27%	28.7%
160	Tuxford/Lankershim to NoHo Sta	541	11%	2,132	13%	0.39	45%	50.1	48%	126	25%	28.6%
161	Figueroa/Ave 26 to Colorado/Eagle Dale	699	15%	2,230	14%	0.31	35%	47.9	46%	159	32%	28.3%
162	Soto Sta to Marengo/State	639	13%	1,628	10%	0.32	37%	60.5	58%	110	22%	28.1%
163	Artesia Sta to Long Beach Bl Sta	570	12%	2,109	13%	0.36	41%	46.8	45%	146	29%	28.1%
164	Sherman Way Sta to Reseda	561	12%	2,241	14%	0.38	43%	45.9	44%	137	27%	28.1%
165	Wilshire/Western to 6th/Vermont	1,077	23%	1,686	10%	0.23	27%	45.9	44%	179	36%	27.9%
166	Main/Mission to Valley/Atlantic	358	7%	2,737	17%	0.49	56%	31.6	30%	140	28%	27.7%
167	Roscoe Sta to Roscoe/Reseda	436	9%	2,174	13%	0.40	46%	45.8	44%	125	25%	27.6%
168	San Fernando/Los Feliz to Olive/San Fernando	383	8%	3,103	19%	0.44	51%	30.1	29%	155	31%	27.6%
169	Pacific/Sunset to Culver City Sta	546	11%	2,507	15%	0.41	47%	34.7	33%	151	30%	27.5%
170	Ventura/Reseda to Van Nuys	532	11%	3,220	20%	0.28	33%	24.0	23%	254	51%	27.5%
171	182nd/Hawthorne to Hawthorne/Lennox Sta	769	16%	2,195	13%	0.26	30%	49.7	48%	148	30%	27.4%
172	Whittier/Atlantic to Montebello Sta	806	17%	1,887	12%	0.23	27%	43.3	42%	200	40%	27.4%
173	Central/Broadway to Colorado/Eagle Rock	493	10%	1,975	12%	0.40	46%	47.8	46%	108	22%	27.3%
174	Jefferson/Hoover to Hoover/Washington	703	15%	2,621	16%	0.34	38%	28.3	27%	195	39%	27.1%
175	6th/Alameda to Commerce Center	555	12%	2,911	18%	0.29	34%	38.3	37%	174	35%	27.0%
176	Fairfax/Olympic to Olympic/Vermont	547	11%	1,844	11%	0.35	40%	49.2	47%	120	24%	26.9%
177	Vanowen/Van Nuys to Burbank Airport	442	9%	1,766	11%	0.39	45%	49.3	48%	107	21%	26.8%
178	Vermont/Prospect to Central/Broadway	275	6%	2,662	16%	0.55	63%	28.6	28%	108	22%	26.7%
179	Century/Aviation to Century/Crenshaw	625	13%	1,784	11%	0.36	41%	47.8	46%	113	23%	26.7%
180	Venice/Figueroa to Union Sta	810	17%	2,703	17%	0.20	23%	23.3	22%	269	54%	26.6%
181	Crenshaw/Wilshire to Hollywood/Vine	599	13%	1,891	12%	0.37	42%	45.7	44%	114	23%	26.6%
182	Balboa Sta to Nordhoff	212	4%	791	5%	0.47	54%	63.8	61%	39	8%	26.5%
183	Le Conte/Broxton to Sunset/Fairfax	383	8%	3,144	19%	0.39	45%	21.2	20%	194	39%	26.3%
184	Hollywood/Orange to Hollywood/Vine	1,081	23%	1,296	8%	0.22	25%	47.0	45%	149	30%	26.1%
185	Alameda Union Sta to Del Mar/Bencamp	84	2%	1,341	8%	0.58	66%	44.1	43%	58	12%	26.1%
186	Sherman Way/Lankershim to NoHo Sta	406	8%	1,231	8%	0.38	43%	57.1	55%	76	15%	25.9%
187	Crenshaw/Artesia to Crenshaw Sta	471	10%	1,734	11%	0.33	38%	49.1	47%	115	23%	25.8%
188	Manchester/Sepulveda to Manchester/Crenshaw	559	12%	2,272	14%	0.33	38%	35.7	34%	152	30%	25.7%
189	Victory/Reseda to Van Nuys	323	7%	1,795	11%	0.43	50%	43.0	41%	97	19%	25.6%
190	Marengo/City Terrace to Garvey/Atlantic	286	6%	2,711	17%	0.45	51%	24.8	24%	151	30%	25.6%
191	Soto/Olympic to Marengo/Soto	458	10%	672	4%	0.27	31%	73.5	71%	63	13%	25.5%
192	Laurel Canyon Sta to Roscoe	362	8%	1,293	8%	0.39	45%	53.6	52%	75	15%	25.4%
193	La Palma/Beach to Norwalk Sta	208	4%	2,140	13%	0.57	66%	26.8	26%	89	18%	25.4%
194	Atlantic/Riggin to Garvey/Rosemead	331	7%	2,152	13%	0.45	52%	32.2	31%	119	24%	25.3%
195	Washington/Fairfax Hub to Fairfax/Wilshire	626	13%	2,021	12%	0.34	39%	33.4	32%	149	30%	25.3%
196	CSU to Avalon Sta	426	9%	1,986	12%	0.33	38%	39.9	38%	142	28%	25.2%
197	Florence/Eastern to Norwalk Sta	513	11%	2,129	13%	0.29	34%	37.0	36%	163	33%	25.1%
198	Hollywood/Fairfax to Hollywood/Argyle	733	15%	1,923	12%	0.32	37%	32.7	32%	149	30%	25.1%

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		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
199	Culver City TC to Crenshaw/Slauson	417	9%	2,513	15%	0.36	41%	26.0	25%	174	35%	25.1%
200	Alameda Union Sta to Del Mar/Marshall	11	0%	559	3%	0.87	100%	19.2	18%	16	3%	25.1%
201	Imperial/Crenshaw to Imperial/Vermont	275	6%	870	5%	0.42	48%	57.6	55%	51	10%	25.0%
202	Hill/Ord to Ave 26/Figueroa	217	5%	3,107	19%	0.44	51%	20.3	20%	155	31%	25.0%
203	Laurel Canyon/Roscoe to Van Nuys	321	7%	1,254	8%	0.38	44%	53.6	52%	75	15%	24.9%
204	Washington Fairfax TC to Hollywood/Highland	503	11%	1,655	10%	0.35	40%	44.4	43%	105	21%	24.9%
205	San Fernando/Van Nuys to Sylmar Sta	407	9%	1,530	9%	0.36	41%	47.7	46%	98	20%	24.9%
206	Hill/Cesar E Chavez to Figueroa/Ave 26	328	7%	3,070	19%	0.42	49%	18.6	18%	159	32%	24.8%
207	Huntington/Maycrest to Las Tunas/Rosemead	451	9%	1,723	11%	0.37	43%	39.4	38%	116	23%	24.7%
208	Reseda/Devonshire to Ventura	455	10%	1,296	8%	0.34	39%	51.2	49%	87	17%	24.7%
209	Olympic/Figueroa to Spring/Temple	754	16%	1,659	10%	0.30	34%	38.5	37%	128	26%	24.6%
210	Vermont Sta to Normandie/Florence	570	12%	1,553	10%	0.25	29%	45.7	44%	141	28%	24.5%
211	Culver City TC to Hyde Park/Crenshaw	394	8%	1,726	11%	0.40	45%	38.1	37%	109	22%	24.5%
212	Grande Vista/Olympic to Soto Sta	471	10%	863	5%	0.38	43%	46.8	45%	91	18%	24.4%
213	De Soto Sta to Nordhoff	293	6%	829	5%	0.32	37%	63.7	61%	58	12%	24.3%
214	La Cienega/Jefferson to La Cienega/Wilshire	506	11%	1,783	11%	0.37	43%	34.3	33%	119	24%	24.3%
215	San Fernando/Fletcher to Columbus/Hawthorne	442	9%	1,377	8%	0.40	46%	32.7	32%	129	26%	24.2%
216	Western/Imperial to Western/Florence	642	13%	1,751	11%	0.19	22%	44.4	43%	161	32%	24.2%
217	Hill/MLK Jr. to Jefferson/Hoover	834	17%	1,396	9%	0.18	20%	36.6	35%	195	39%	24.1%
218	Crenshaw Sta to Western/Florence	394	8%	1,735	11%	0.32	36%	39.1	38%	137	27%	24.0%
219	Lankershim/San Fernando to Van Nuys	292	6%	2,020	12%	0.40	46%	34.1	33%	116	23%	24.0%
220	Santa Monica/Vermont to Grand/Cesar Chavez	448	9%	2,232	14%	0.29	33%	36.8	35%	140	28%	24.0%
221	Slauson/Atlantic to Paramount/Slauson	428	9%	2,152	13%	0.30	34%	28.4	27%	182	36%	24.0%
222	Brand/Broadway to 1st/Olive	401	8%	1,363	8%	0.40	46%	40.4	39%	85	17%	23.7%
223	PCH/I-110 to PCH/Hawthorne	289	6%	1,561	10%	0.42	49%	37.1	36%	92	18%	23.7%
224	Grand/Temple to Venice/16th	832	17%	1,776	11%	0.21	24%	30.2	29%	187	37%	23.7%
225	MLK TC to Avalon Sta	473	10%	1,587	10%	0.27	31%	39.8	38%	148	30%	23.7%
226	Atlantic/Imperial to Atlantic/Slauson	255	5%	1,079	7%	0.42	48%	46.1	44%	64	13%	23.5%
227	Marengo/Cummings to Avenue 28/Idell	579	12%	1,142	7%	0.23	26%	51.5	50%	112	22%	23.4%
228	Broadway/Washington to Washington/Figueroa	956	20%	1,026	6%	0.15	17%	41.1	40%	170	34%	23.4%
229	LAX to Inglewood TC	493	10%	1,569	10%	0.27	31%	41.2	40%	131	26%	23.3%
230	Jefferson/La Cienega to Jefferson/Vermont	477	10%	1,155	7%	0.27	31%	48.5	47%	106	21%	23.2%
231	6th/Central to Telegraph/Atlantic	178	4%	1,609	10%	0.53	61%	27.4	26%	76	15%	23.2%
232	San Pedro/Florence to Avalon Sta	502	11%	1,314	8%	0.24	28%	43.3	42%	135	27%	23.0%
233	MLK Transit Ctr to Rosecrans/Lakewood	319	7%	1,240	8%	0.41	47%	40.0	39%	76	15%	22.9%
234	Watts Tower Sta to Imperial/Atlantic	487	10%	1,434	9%	0.28	32%	41.4	40%	114	23%	22.8%
235	Sepulveda/Nordhoff to Truman/Maclay	280	6%	1,697	10%	0.39	44%	35.0	34%	99	20%	22.8%
236	18th/Olive to Spring/Cesar E Chavez	693	15%	1,597	10%	0.23	26%	29.3	28%	177	35%	22.7%
237	Figueroa/Ave 26 to Colorado/Verdugo	431	9%	1,453	9%	0.28	32%	41.5	40%	121	24%	22.7%
238	Venice/Broadway to Spring/Cesar E Chavez	632	13%	1,621	10%	0.27	31%	30.7	30%	151	30%	22.7%
239	CSU/Eastern to CSU TC	187	4%	414	3%	0.39	44%	56.5	54%	43	9%	22.7%
240	Nordhoff Sta to Reseda	314	7%	1,510	9%	0.35	40%	38.7	37%	102	20%	22.6%
241	La Brea/Expo to Manchester/Market	106	2%	384	2%	0.48	55%	50.7	49%	20	4%	22.5%
242	Willowbrook/Rosa Parks Sta to Compton/Florence	449	9%	1,248	8%	0.28	32%	42.1	41%	113	23%	22.4%
243	Westwood/Wilshire to Sepulveda/Ventura	156	3%	2,623	16%	0.44	50%	21.4	21%	109	22%	22.4%
244	I-405 to Santa Monica/Wilshire	355	7%	2,505	15%	0.33	38%	23.7	23%	140	28%	22.2%
245	Glendale/Montana to Brand/Broadway	262	5%	1,513	9%	0.45	51%	29.1	28%	85	17%	22.2%
246	Artesia Sta to 183rd at Sears Entry	201	4%	902	6%	0.43	49%	43.2	42%	53	11%	22.1%
247	Long Beach Bl Sta to Florence/Seville	467	10%	1,407	9%	0.28	32%	38.8	37%	112	22%	22.1%
248	Inglewood TC to Florence/Crenshaw	449	9%	1,879	12%	0.25	29%	27.3	26%	167	33%	21.9%

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249	Vanowen/Topanga Cyn to Reseda	313	7%	1,452	9%	0.32	37%	37.3	36%	107	21%	21.9%
250	Cesar Chavez/Gateway Center to Marengo/State	208	4%	1,081	7%	0.45	52%	36.3	35%	60	12%	21.9%
251	Wilshire/Flower to Alameda Union Sta	371	8%	1,175	7%	0.41	47%	34.0	33%	71	14%	21.9%
252	Atlantic/Slauson to Los Robles/Valley	212	4%	1,092	7%	0.43	49%	37.6	36%	64	13%	21.8%
253	Pacific/Slauson to Soto/Olympic	276	6%	2,012	12%	0.40	46%	23.7	23%	110	22%	21.7%
254	Olive/Venice to Spring/Cesar E Chavez	631	13%	1,457	9%	0.21	24%	23.6	23%	197	39%	21.6%
255	Grand/Cesar Chavez to Patsaouras Transit Plaza	640	13%	1,254	8%	0.16	19%	40.7	39%	140	28%	21.4%
256	Douglas Sta to Rosecrans/Harbor Fwy Sta	323	7%	1,027	6%	0.34	39%	41.5	40%	76	15%	21.4%
257	Santa Monica/I405 to Santa Monica/Wilshire	464	10%	1,948	12%	0.23	26%	22.5	22%	187	37%	21.3%
258	5th/Los Angeles to Flower/Adams	295	6%	528	3%	0.30	34%	56.3	54%	42	8%	21.3%
259	La Cienega/Jefferson Sta to Washington/Fairfax Hub	683	14%	1,254	8%	0.21	24%	31.5	30%	149	30%	21.2%
260	Ocean/Arizona to Santa Monica/I-405	424	9%	2,129	13%	0.24	27%	24.0	23%	169	34%	21.2%
261	Hyde Park/Crenshaw to Gage Ave/Vermont	313	7%	1,541	9%	0.36	42%	27.7	27%	106	21%	21.1%
262	Artesia Sta to Atlantic/Imperial	346	7%	1,615	10%	0.22	25%	29.1	28%	174	35%	21.0%
263	Temescal Canyon/PCH to Olympic/7th	177	4%	1,092	7%	0.44	50%	33.2	32%	61	12%	21.0%
264	Norwalk Sta to 5th/Los Angeles	38	1%	2,030	12%	0.54	62%	11.6	11%	89	18%	20.9%
265	Telegraph/Antlantic to Telegraph/Norwalk	174	4%	1,314	8%	0.43	50%	28.7	28%	76	15%	20.8%
266	Harbor Gateway TC to Avalon Sta	237	5%	1,100	7%	0.34	39%	38.4	37%	80	16%	20.8%
267	Avalon/Anaheim to Harbor Gateway Transit Ctr	216	5%	974	6%	0.37	43%	39.1	38%	65	13%	20.8%
268	Van Nuys Sta to Woodman	226	5%	688	4%	0.31	35%	51.9	50%	49	10%	20.7%
269	El Monte Sta to Huntington/Sunset	189	4%	890	5%	0.40	46%	38.2	37%	56	11%	20.6%
270	Harbor Fwy Sta to MLK Transit Ctr	239	5%	1,163	7%	0.38	44%	32.8	32%	76	15%	20.6%
271	Eastern/Florence to Atlantic/Telegraph	134	3%	806	5%	0.49	56%	31.6	30%	41	8%	20.5%
272	Manchester/Garfield to Norwalk Sta	394	8%	1,606	10%	0.23	27%	28.3	27%	154	31%	20.5%
273	Rosemead/Telegraph to Rosemead/Valley	158	3%	1,108	7%	0.41	47%	32.8	32%	67	13%	20.5%
274	Colorado/Eagle Rock to Colorado/Lake	268	6%	1,618	10%	0.34	39%	25.1	24%	119	24%	20.5%
275	Willowbrook/Rosa Parks Sta to Imperial/Atlantic	224	5%	902	6%	0.37	42%	39.3	38%	61	12%	20.5%
276	Temple/Alameda to Indiana Sta	479	10%	1,370	8%	0.18	21%	26.2	25%	187	37%	20.4%
277	Huntington/Sunset to Los Robles/Colorado	149	3%	958	6%	0.43	49%	33.7	33%	56	11%	20.3%
278	Devonshire/Reseda to Arleta/Van Nuys	130	3%	643	4%	0.35	40%	48.5	47%	41	8%	20.3%
279	Olympic/Indiana to Atlantic	430	9%	1,544	9%	0.22	25%	34.5	33%	123	25%	20.3%
280	Balboa/Nordhoff to Rinaldi	145	3%	645	4%	0.38	44%	44.4	43%	39	8%	20.3%
281	Temple/Figueroa to Glendale/Montana	213	4%	1,415	9%	0.42	48%	24.1	23%	85	17%	20.2%
282	San Fernando/Lankershim to Sylmar Sta	280	6%	1,291	8%	0.26	29%	37.2	36%	110	22%	20.2%
283	Downtown Long Beach Sta to PCH/I-110	251	5%	1,328	8%	0.36	41%	28.7	28%	92	18%	20.2%
284	San Pedro/Rosecrans to Harbor Fwy Sta	441	9%	1,182	7%	0.16	19%	30.5	29%	179	36%	20.1%
285	La Cienega/Jefferson to Wilshire	260	5%	1,450	9%	0.37	43%	24.6	24%	97	19%	20.1%
286	Lakewood/Hardwick to Lakewood Sta	211	4%	929	6%	0.35	40%	38.4	37%	67	13%	20.0%
287	Ventura/Sepulveda to Van Nuys Sta	289	6%	1,557	10%	0.28	32%	34.1	33%	97	19%	20.0%
288	Glenoaks/Van Nuys to Sylmar Sta	256	5%	617	4%	0.29	33%	49.1	47%	54	11%	20.0%
289	Marengo/State to Avenue 28/Idell	468	10%	919	6%	0.18	21%	42.7	41%	110	22%	19.9%
290	Cesar Chavez/Grand to Venice/Broadway	564	12%	1,091	7%	0.20	23%	32.5	31%	131	26%	19.8%
291	Atlantic/Valley to Fair Oaks/Colorado	302	6%	1,455	9%	0.29	33%	28.9	28%	114	23%	19.8%
292	Spring/Cesar E Chavez to Riverside/Oros	127	3%	728	4%	0.51	59%	22.1	21%	57	11%	19.7%
293	Verdugo/Honolulu to Foothill/Sunland	218	5%	1,474	9%	0.33	38%	27.2	26%	101	20%	19.6%
294	17th/Hill to Cesar Chavez/Vignes	369	8%	1,377	8%	0.29	33%	25.5	25%	119	24%	19.5%
295	Century City Terminal to San Vicente/Gracie Allen	385	8%	1,546	9%	0.19	21%	18.3	18%	205	41%	19.5%
296	Laurel Canyon/Van Nuys to Sylmar Sta	272	6%	1,012	6%	0.31	35%	36.4	35%	75	15%	19.4%
297	Ventura/Topanga Cyn to Warner Ctr	165	3%	471	3%	0.29	33%	51.8	50%	40	8%	19.4%
298	Marengo/State St. to CSU	271	6%	710	4%	0.30	34%	42.4	41%	60	12%	19.4%

	Segment Description	Boardings per Route Mile		Pass Miles per Route Mile		Seat Utilization		Boardings per Revenue Hour		Trips per Day		Overall Score
		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
299	Broadway/Cesar E Chavez to Daly/Broadway	258	5%	1,125	7%	0.36	41%	29.0	28%	79	16%	19.4%
300	Calabasas Rd to Ventura/Topanga Cyn	94	2%	760	5%	0.46	53%	30.6	29%	40	8%	19.3%
301	Santa Fe/Olympic to Beaudry/4th	387	8%	1,236	8%	0.28	32%	27.5	26%	110	22%	19.2%
302	Atlantic/Telegraph to CSU	115	2%	747	5%	0.41	47%	34.4	33%	46	9%	19.2%
303	Plummer/Van Nuys to Valley College Sta	147	3%	703	4%	0.38	44%	36.2	35%	46	9%	19.0%
304	Olive/San Fernando to San Fernando/Lankershim	221	5%	1,809	11%	0.26	30%	19.2	18%	155	31%	19.0%
305	Spring/Temple to Figueroa/Ave 26	296	6%	1,575	10%	0.30	35%	21.1	20%	120	24%	19.0%
306	Century Park/Santa Monica to Olympic/Fairfax	324	7%	1,466	9%	0.24	27%	29.3	28%	114	23%	18.8%
307	Arizona Ave to Pacific/Sunset	293	6%	843	5%	0.24	28%	39.2	38%	85	17%	18.8%
308	Fair Oaks/Colorado to Fair Oaks/Woodbury	368	8%	944	6%	0.19	22%	37.3	36%	113	23%	18.7%
309	Harbor Transitway/PCH to Harbor Gateway TC	73	2%	1,493	9%	0.41	46%	21.3	20%	80	16%	18.7%
310	Universal/Studio City Sta to NoHo Sta	406	8%	1,037	6%	0.19	22%	33.4	32%	124	25%	18.7%
311	Nordhoff/Van Nuys to Branford/Glenoaks	315	7%	1,058	6%	0.22	25%	33.8	33%	115	23%	18.7%
312	Sunland/Foothill to Vineland/Cantara	223	5%	400	2%	0.22	25%	53.6	52%	45	9%	18.6%
313	Sherman Way/Lankershim to Vineland/Cantara	258	5%	595	4%	0.22	26%	48.0	46%	61	12%	18.6%
314	Glenoaks/Roscoe to Glenoaks/Van Nuys	152	3%	745	5%	0.34	39%	37.0	36%	55	11%	18.6%
315	Alondra/Atlantic to Alondra/Studebaker	114	2%	618	4%	0.43	49%	31.4	30%	36	7%	18.6%
316	Paramount/Artesia to Lakewood Bl Sta	127	3%	544	3%	0.38	43%	37.4	36%	36	7%	18.5%
317	Hawthorne/PCH to Artesia/Hawthorne	125	3%	794	5%	0.39	45%	31.4	30%	51	10%	18.5%
318	Imperial/Vermont to Willowbrook/Rosa Parks Sta	166	3%	842	5%	0.37	43%	31.2	30%	56	11%	18.5%
319	Fallbrook/Ventura to Roscoe Orange Line Sta	259	5%	1,084	7%	0.20	23%	33.3	32%	125	25%	18.4%
320	Tampa Sta to Nordhoff	130	3%	425	3%	0.28	32%	50.0	48%	35	7%	18.4%
321	Saticoy/Reseda to Van Nuys	89	2%	504	3%	0.39	45%	37.0	36%	32	6%	18.4%
322	NoHo Sta to Olive/San Fernando	143	3%	565	3%	0.35	40%	38.4	37%	40	8%	18.4%
323	Del Mar/Marshall to Huntington/Rosemead	69	1%	222	1%	0.35	40%	47.8	46%	16	3%	18.4%
324	MLK TC to Alondra/Atlantic	164	3%	451	3%	0.31	36%	44.0	42%	36	7%	18.3%
325	Grand/3rd to 6th/Central	411	9%	748	5%	0.25	28%	36.4	35%	76	15%	18.3%
326	Van Nuys/Glenoaks to Foothill/Terra Bella	485	10%	999	6%	0.12	14%	33.8	33%	144	29%	18.3%
327	Truman/Maclay to Eldridge/Maclay	266	6%	1,146	7%	0.26	30%	30.4	29%	99	20%	18.3%
328	Rosemead/Valley to Sierra Madre Villa Sta	194	4%	854	5%	0.32	37%	33.3	32%	67	13%	18.2%
329	Soto Sta to USC Clinic	434	9%	479	3%	0.21	24%	38.2	37%	91	18%	18.2%
330	CSU TC to York/Figueroa	103	2%	482	3%	0.45	51%	27.0	26%	43	9%	18.2%
331	Arleta/Van Nuys to Woodman/Oxnard	151	3%	549	3%	0.31	35%	42.7	41%	40	8%	18.1%
332	Daly/Broadway to Figueroa/Avenue 61	222	5%	1,030	6%	0.33	37%	27.6	27%	79	16%	18.1%
333	Winnetka/Orange Line to Ventura	177	4%	349	2%	0.23	26%	53.9	52%	35	7%	18.1%
334	Colorado/Eagle Rock to Colorado/Hill	200	4%	1,377	8%	0.28	32%	24.9	24%	108	22%	18.1%
335	Victory/Lankershim to Burbank Sta	266	6%	1,043	6%	0.25	29%	30.9	30%	97	19%	18.0%
336	Universal/Studio City Sta to Buena Vista/Alameda	158	3%	654	4%	0.36	42%	33.2	32%	45	9%	18.0%
337	Saticoy/Topanga Cyn to Reseda	97	2%	468	3%	0.37	42%	38.0	37%	32	6%	18.0%
338	Grand/Washington to 23rd/Figueroa	573	12%	553	3%	0.16	19%	31.2	30%	129	26%	18.0%
339	Florence/Compton to Maie/Firestone	84	2%	216	1%	0.27	31%	53.6	52%	20	4%	17.9%
340	Vermont/Expo to Jefferson/Avalon	204	4%	588	4%	0.31	36%	37.8	36%	47	9%	17.9%
341	Reseda/Devonshire to Reseda/Nordhoff	336	7%	777	5%	0.14	16%	43.6	42%	97	19%	17.9%
342	Topanga Cyn/Victory to Victory/Reseda	204	4%	1,152	7%	0.28	32%	27.6	27%	97	19%	17.8%
343	Palm/Seville to Pacific/Slauson	440	9%	822	5%	0.16	19%	35.3	34%	110	22%	17.8%
344	Riverside/Oros to Griffith Park/Los Feliz	92	2%	641	4%	0.45	52%	20.8	20%	57	11%	17.8%
345	Beverly/La Cienega to Beverly/Pico	383	8%	1,249	8%	0.18	20%	18.2	18%	173	35%	17.6%
346	Lakewood Bl Sta to Paramount/Florence	123	3%	501	3%	0.35	40%	36.8	35%	36	7%	17.6%
347	Jet Propulsion Lab to Raymond/Colorado	22	0%	183	1%	0.52	60%	24.7	24%	14	3%	17.6%
348	Nordhoff/Corbin to Winnetka/Orange Line	120	3%	449	3%	0.29	33%	44.0	42%	35	7%	17.6%

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		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
349	Van Nuys/Ventura to Van Nuys Sta	435	9%	1,164	7%	0.14	16%	27.2	26%	149	30%	17.6%
350	Artesia/Hawthorne to Harbor Gateway Transit Ctr	200	4%	1,170	7%	0.29	33%	24.1	23%	101	20%	17.6%
351	Sepulveda Expo Sta to Westwood/Wilshire	353	7%	1,378	8%	0.17	20%	22.6	22%	151	30%	17.5%
352	Ventura Bl/Pl to Laurel Canyon Sta	300	6%	635	4%	0.19	22%	41.3	40%	75	15%	17.4%
353	CSUN Transit Ctr to Plummer/Van Nuys	100	2%	711	4%	0.39	44%	28.1	27%	46	9%	17.4%
354	West Hills Medical Ctr to Sherman Way Sta	444	9%	724	4%	0.12	14%	32.7	31%	137	27%	17.3%
355	PCH/Artesia to Mariposa/Nash Sta	149	3%	1,177	7%	0.33	38%	20.6	20%	88	18%	17.2%
356	Florence Sta to Palm/Seville	255	5%	416	3%	0.22	25%	45.0	43%	47	9%	17.2%
357	Wilshire/Vermont Sta to Parkman/Sunset	194	4%	414	3%	0.29	33%	40.3	39%	36	7%	17.1%
358	Disneyland to La Palma/Beach	114	2%	1,171	7%	0.32	37%	22.5	22%	87	17%	17.1%
359	Grand/Washington to Figueroa/Sunset	356	7%	1,009	6%	0.23	26%	24.4	23%	111	22%	17.1%
360	LAX to Century/Aviation	339	7%	924	6%	0.18	21%	29.5	28%	113	23%	17.0%
361	Arizona Ave to Main/Grand	327	7%	1,257	8%	0.19	22%	25.7	25%	118	24%	16.9%
362	San Vicente/Melrose to Arden Pl	272	6%	1,054	6%	0.23	26%	24.0	23%	116	23%	16.9%
363	Hawthorne/182nd to Hawthorne/Lennox Sta	225	5%	825	5%	0.25	28%	30.5	29%	84	17%	16.8%
364	Hollywood/Argyle to Fountain Ave	433	9%	790	5%	0.13	15%	26.0	25%	149	30%	16.8%
365	Harbor Gateway Transit Ctr to Artesia Sta	118	2%	727	4%	0.34	39%	28.0	27%	53	11%	16.8%
366	PCH/Hawthorne to PCH/Artesia	152	3%	1,109	7%	0.30	35%	20.9	20%	92	18%	16.6%
367	Los Robles/Colorado to Altadena/Lake	151	3%	614	4%	0.27	31%	34.3	33%	56	11%	16.5%
368	La Cienega/Wilshire to Santa Monica/San Vicente	327	7%	943	6%	0.21	24%	24.2	23%	111	22%	16.5%
369	Main/11th to Temple/Figueroa	342	7%	747	5%	0.22	25%	29.5	28%	85	17%	16.5%
370	7th/Maple to Main/Cesar E Chavez	419	9%	901	6%	0.20	22%	23.3	22%	115	23%	16.4%
371	Figueroa/Avenue 61 to Eagle Rock/York	239	5%	655	4%	0.21	24%	34.3	33%	79	16%	16.3%
372	Malibu Canyon/Civic Center to Temescal Canyon/PCH	47	1%	1,038	6%	0.42	48%	14.6	14%	61	12%	16.3%
373	LAX to Imperial/Crenshaw	168	4%	515	3%	0.25	29%	37.2	36%	51	10%	16.3%
374	Jefferson/Vermont to Broadway/Washington	335	7%	1,027	6%	0.19	22%	20.1	19%	134	27%	16.2%
375	MLK TC to Lakewood/Somersset	116	2%	324	2%	0.27	31%	40.9	39%	30	6%	16.2%
376	Crenshaw/Stocker to Vermont/Expo	165	3%	591	4%	0.30	34%	30.5	29%	50	10%	16.1%
377	San Vicente/Sunset to Pico/Rimpau	257	5%	1,210	7%	0.19	22%	15.2	15%	153	31%	16.0%
378	Nordhoff Sta to Nordhoff/Reseda	34	1%	190	1%	0.35	40%	36.9	36%	13	3%	16.0%
379	Sylmar Sta to Olive View Medical Center	190	4%	988	6%	0.23	26%	24.7	24%	98	20%	16.0%
380	Colorado/Lake to Sierra Madre Villa Sta	169	4%	506	3%	0.25	28%	35.9	35%	51	10%	16.0%
381	Sepulveda/Nordhoff to Sylmar Sta	191	4%	1,088	7%	0.20	23%	26.8	26%	96	19%	15.7%
382	Zelzah/Nordhoff to Devonshire	94	2%	450	3%	0.30	34%	33.5	32%	35	7%	15.7%
383	Washington/Palawan to Culver City TC	185	4%	1,185	7%	0.21	24%	15.4	15%	141	28%	15.7%
384	Rosemead/Valley to El Monte Sta	122	3%	507	3%	0.30	35%	30.3	29%	42	8%	15.6%
385	Saticoy/Van Nuys to Lankershim	87	2%	404	2%	0.32	36%	31.5	30%	32	6%	15.4%
386	California/Fair Oaks to Hill/Colorado	112	2%	372	2%	0.35	40%	24.8	24%	43	9%	15.4%
387	Artesia Sta to Willowbrook/Rosa Parks Sta	187	4%	559	3%	0.22	25%	32.6	31%	63	13%	15.4%
388	Riggin/Atlantic to ELAC TC	198	4%	914	6%	0.21	24%	22.0	21%	110	22%	15.3%
389	Jefferson/Avalon to Florence Sta	132	3%	559	3%	0.30	34%	28.0	27%	47	9%	15.3%
390	Paseo Del Mar/Meyler to Avalon/Anaheim	134	3%	731	4%	0.28	32%	25.1	24%	65	13%	15.3%
391	Crenshaw/MLK to Crenshaw/Jefferson	310	6%	530	3%	0.16	18%	33.0	32%	84	17%	15.3%
392	Culver/Pacific to Manchester/Sepulveda	198	4%	685	4%	0.19	21%	31.4	30%	81	16%	15.2%
393	Santa Anita/Huntington to El Monte Sta	123	3%	577	4%	0.26	30%	30.0	29%	56	11%	15.1%
394	Eastern/Tuttle to CSU/Eastern	97	2%	350	2%	0.33	37%	26.4	25%	43	9%	15.1%
395	Pacific/21st to Harbor Transitway/PCH	94	2%	1,045	6%	0.28	33%	19.2	18%	80	16%	15.1%
396	NoHo Sta to Buena Vista/Alameda	164	3%	976	6%	0.22	25%	19.0	18%	110	22%	15.0%
397	Mariposa/Nash Sta to LAX	202	4%	652	4%	0.19	22%	28.9	28%	85	17%	15.0%
398	Norwalk Sta to Whittwood Center	95	2%	678	4%	0.32	37%	22.2	21%	52	10%	15.0%

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		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
399	Sepulveda Expo Sta to Wilshire/Veteran	198	4%	407	2%	0.18	21%	39.0	38%	49	10%	14.9%
400	Van Nuys Sta to Woodley/Nordhoff	93	2%	414	3%	0.28	32%	31.8	31%	37	7%	14.9%
401	Pioneer/Rosecrans to Gridley/187th	125	3%	721	4%	0.30	34%	22.3	22%	61	12%	14.9%
402	Huntington/Maycrest to Huntington/Rosemead	89	2%	846	5%	0.30	35%	19.4	19%	70	14%	14.9%
403	Sunset/PCH to Le Conte/Broxtton	107	2%	918	6%	0.29	33%	18.7	18%	78	16%	14.9%
404	Harbor Gateway Transit Ctr to Artesia Sta	117	2%	675	4%	0.27	31%	25.1	24%	63	13%	14.8%
405	Sanchez/Brand to Del Mar Sta	84	2%	1,010	6%	0.23	26%	18.3	18%	110	22%	14.8%
406	Culver City Expo Sta to San Vicente/Gracie Allen	172	4%	453	3%	0.25	28%	31.4	30%	45	9%	14.8%
407	Imperial/Atlantic to Norwalk Sta	131	3%	717	4%	0.29	33%	21.7	21%	61	12%	14.7%
408	Indiana/Olympic to Indiana Sta	173	4%	379	2%	0.23	26%	34.6	33%	42	8%	14.7%
409	Gage/Eastern to Granger/Florence	209	4%	724	4%	0.19	22%	24.7	24%	94	19%	14.7%
410	Van Nuys Orange Line Sta to NoHo Sta	70	1%	324	2%	0.29	33%	32.2	31%	28	6%	14.6%
411	Western/1st to Vermont/PCH	118	2%	668	4%	0.27	31%	23.8	23%	61	12%	14.6%
412	Rosecrans/Lakewood to Norwalk Sta	139	3%	644	4%	0.21	24%	27.4	26%	76	15%	14.5%
413	Vermont/PCH to Harbor Gateway Transit Ctr	112	2%	634	4%	0.26	30%	25.0	24%	61	12%	14.5%
414	Trancas Canyon/PCH to PCH/Heathcliff	97	2%	312	2%	0.14	16%	42.5	41%	55	11%	14.4%
415	Sylmar Sta to Hubbard/Eldridge	161	3%	604	4%	0.20	23%	29.2	28%	68	14%	14.4%
416	Laurel Canyon/Hollywood to Laurel Canyon/Ventura	77	2%	495	3%	0.36	41%	15.6	15%	55	11%	14.4%
417	Reseda Sta to Ventura/Sepulveda	172	4%	1,043	6%	0.19	22%	21.7	21%	97	19%	14.4%
418	Wilshire to Santa Monica Bl	247	5%	679	4%	0.17	20%	23.3	22%	97	19%	14.2%
419	El Monte Sta to Westfield Santa Anita	112	2%	537	3%	0.27	31%	25.1	24%	49	10%	14.2%
420	Buena Vista/Alameda to Burbank Sta	145	3%	384	2%	0.21	24%	33.1	32%	45	9%	14.2%
421	E.A. Way/Jefferson Bl to Culver City TC	172	4%	721	4%	0.20	23%	22.6	22%	91	18%	14.1%
422	Topanga Cyn/Nordhoff to Warner Ctr	152	3%	463	3%	0.19	22%	32.9	32%	55	11%	14.1%
423	Burbank Sta to Glenoaks/Roscoe	112	2%	582	4%	0.26	30%	24.1	23%	55	11%	14.1%
424	PCH/Vermont to Harbor Gateway TC	85	2%	575	4%	0.28	32%	23.5	23%	51	10%	14.1%
425	Olympic/Figueroa to Union Sta	350	7%	827	5%	0.13	15%	20.6	20%	114	23%	14.1%
426	Topanga Cyn/Sherman Way to Ventura/Reseda	151	3%	729	4%	0.21	24%	23.1	22%	79	16%	14.0%
427	Wilshire/Veteran to Van Nuys Sta	21	0%	916	6%	0.41	47%	7.7	7%	49	10%	14.0%
428	Del Mar/Bencamp to Sierra Madre Villa Sta	112	2%	634	4%	0.27	31%	21.9	21%	59	12%	14.0%
429	St. George/Aloha to Sanborn/Sunset	77	2%	137	1%	0.19	22%	43.4	42%	18	4%	13.9%
430	De Soto/Nordhoff to Chatsworth Sta	166	3%	405	2%	0.16	18%	35.0	34%	58	12%	13.9%
431	Huntington/Rosemead to Arcadia Gold Line Sta	173	4%	547	3%	0.20	22%	27.0	26%	70	14%	13.9%
432	CSU to Fremont/Huntington	84	2%	529	3%	0.28	32%	23.5	23%	47	9%	13.9%
433	Cecilia/Atlantic to Florence Sta	135	3%	305	2%	0.20	23%	35.0	34%	38	8%	13.8%
434	Burbank Airport to Burbank Sta	148	3%	783	5%	0.19	22%	20.3	20%	98	20%	13.7%
435	Telegraph/Norwalk to Pioneer/Rosecrans	128	3%	786	5%	0.26	30%	16.9	16%	76	15%	13.7%
436	Inglewood Transit Ctr to Manchester/Figueroa	20	0%	95	1%	0.29	33%	33.9	33%	8	2%	13.7%
437	Colorado/Lake to Altadena/Lake	162	3%	439	3%	0.20	22%	29.6	29%	56	11%	13.7%
438	Century City Terminal to Fairfax/Olympic	159	3%	695	4%	0.20	23%	22.8	22%	80	16%	13.6%
439	Sepulveda/Ventura to NoHo Sta	88	2%	394	2%	0.25	28%	28.7	28%	40	8%	13.6%
440	Hill/Venice to Broadway/Cesar E Chavez	287	6%	551	3%	0.17	20%	23.8	23%	79	16%	13.6%
441	7th/Patton to PCH/Vermont	107	2%	458	3%	0.23	26%	27.6	27%	50	10%	13.6%
442	LAX to Crenshaw/Stocker	97	2%	549	3%	0.27	31%	22.1	21%	51	10%	13.6%
443	San Vicente/Gracie Allen to Laurel Canyon/Hollywood	159	3%	377	2%	0.27	31%	20.3	20%	55	11%	13.5%
444	Foothill/Sunland to Van Nuys	52	1%	673	4%	0.28	32%	20.1	19%	54	11%	13.5%
445	Harbor Gateway TC to McClintock/Jefferson	42	1%	508	3%	0.30	35%	21.1	20%	42	8%	13.5%
446	Vernon Sta to Slauson/Atlantic	98	2%	394	2%	0.25	29%	27.0	26%	39	8%	13.4%
447	Indiana Sta to CSU	123	3%	397	2%	0.24	27%	27.7	27%	42	8%	13.4%
448	Manchester/Market to Hawthorne/Lennox Sta	18	0%	154	1%	0.39	44%	20.2	19%	10	2%	13.4%

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		Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	Total	Percetile	
449	Lorena/Olympic to Indiana Sta	82	2%	218	1%	0.27	31%	27.3	26%	32	6%	13.4%
450	Paramount/Jackson to Eastern/Florence	88	2%	421	3%	0.26	29%	25.8	25%	41	8%	13.4%
451	Gage/Pacific to Lorena/Olympic	54	1%	277	2%	0.35	40%	18.4	18%	32	6%	13.3%
452	Hawthorn/Highland to Cahuenga/Barham	110	2%	497	3%	0.28	32%	21.5	21%	45	9%	13.3%
453	Fremont/Huntington to Lake Sta	83	2%	505	3%	0.27	31%	21.8	21%	46	9%	13.3%
454	Cahuenga/Lankershim to NoHo Sta	117	2%	570	3%	0.26	30%	20.6	20%	55	11%	13.3%
455	NoHo Sta to Van Nuys Sta	90	2%	496	3%	0.26	30%	22.7	22%	47	9%	13.3%
456	Gridley/187th to 226th/Norwalk	144	3%	582	4%	0.20	23%	22.7	22%	72	14%	13.2%
457	Lake Sta to Altadena/Lake	135	3%	355	2%	0.19	22%	30.8	30%	46	9%	13.2%
458	Sunland/San Fernando to Foothill	47	1%	436	3%	0.32	37%	18.6	18%	34	7%	13.0%
459	Olympic/Atlantic to Montebello Metrolink	193	4%	643	4%	0.12	14%	25.2	24%	94	19%	13.0%
460	Cahuenga/Barham to Hollywood/Magnolia	78	2%	512	3%	0.28	33%	19.2	18%	45	9%	13.0%
461	17th/Hill to Cesar Chavez/Gateway Center	183	4%	520	3%	0.22	25%	21.5	21%	60	12%	12.9%
462	San Fernando/Western to Glendale Transit Ctr	75	2%	301	2%	0.26	30%	26.4	25%	29	6%	12.9%
463	Firestone/Santa Fe to Florence/Otis	99	2%	323	2%	0.22	26%	28.4	27%	36	7%	12.9%
464	Imperial/Main to Aviation Sta	108	2%	281	2%	0.22	26%	25.4	24%	50	10%	12.8%
465	Las Tunas/Rosemead to Live Oak/Santa Anita	135	3%	654	4%	0.18	21%	19.1	18%	90	18%	12.8%
466	Culver City TC to La Cienega/Jefferson Sta	120	3%	807	5%	0.21	25%	13.5	13%	94	19%	12.8%
467	Topanga Cyn/Ventura to De Soto Sta	133	3%	466	3%	0.18	20%	26.9	26%	60	12%	12.7%
468	Crenshaw Sta to Western/Imperial	210	4%	382	2%	0.09	10%	31.6	30%	83	17%	12.7%
469	Broadway/Central to Chevy Chase/Glenoaks	144	3%	254	2%	0.18	20%	32.8	32%	36	7%	12.7%
470	Figueroa/Sunset to Grand/Washington	76	2%	218	1%	0.27	31%	26.4	25%	20	4%	12.7%
471	Garfield/Atlantic to Rosemead/Valley	85	2%	409	3%	0.25	29%	23.4	23%	41	8%	12.7%
472	Warner Ctr to Ventura/Reseda	137	3%	710	4%	0.16	18%	19.4	19%	97	19%	12.7%
473	Highland/Hollywood to Cahuenga/Lankershim	74	2%	575	4%	0.26	30%	17.6	17%	55	11%	12.6%
474	Marengo/Soto to Figueroa/Carlota Bl	148	3%	447	3%	0.18	20%	24.9	24%	63	13%	12.6%
475	Hawthorne/182nd to Artesia/Hawthorne	192	4%	653	4%	0.13	15%	18.3	18%	112	22%	12.6%
476	Parkman/Sunset to Silver Lake/Rowena	43	1%	488	3%	0.34	39%	12.8	12%	36	7%	12.4%
477	Verdugo/Colorado to Canada/Towne	152	3%	349	2%	0.15	17%	29.1	28%	59	12%	12.4%
478	Florence Sta to Vernon Sta	120	3%	300	2%	0.19	22%	28.7	28%	39	8%	12.4%
479	Workman/College to El Monte Sta	61	1%	479	3%	0.26	30%	18.8	18%	46	9%	12.3%
480	Imperial/Atlantic to Lakewood Bl Sta	172	4%	664	4%	0.14	16%	16.9	16%	107	21%	12.3%
481	Atlantic/Imperial to Willowbrook Sta	96	2%	277	2%	0.19	22%	29.3	28%	36	7%	12.2%
482	Alameda/Buena Vista to Sanchez/Brand	34	1%	1,038	6%	0.24	27%	5.2	5%	110	22%	12.2%
483	Dorothy/Chesebro to Calabasas Rd	15	0%	600	4%	0.36	42%	7.7	7%	40	8%	12.2%
484	Artesia/PCH to Artesia/Hawthorne	93	2%	453	3%	0.24	27%	20.1	19%	48	10%	12.2%
485	York/Figueroa to California/Fair Oaks	28	1%	375	2%	0.35	40%	9.4	9%	43	9%	12.1%
486	White Oak/Victory to Zelzah/Nordhoff	71	1%	332	2%	0.22	25%	25.3	24%	35	7%	12.1%
487	Hawthorne/Palos Verdes to Hawthorne/PCH	61	1%	465	3%	0.23	26%	20.5	20%	51	10%	12.0%
488	Paramount/Florence to Pearson/Jackson	73	2%	327	2%	0.23	26%	24.3	23%	36	7%	12.0%
489	Griffith Park/Los Feliz to Victory/Riverside	21	0%	499	3%	0.35	40%	5.2	5%	57	11%	12.0%
490	Sunset/Vermont to St. George/Aloha	55	1%	174	1%	0.24	28%	27.4	26%	18	4%	12.0%
491	Platt/Victory to Vanowen/Topanga Cyn	125	3%	562	3%	0.13	14%	18.7	18%	106	21%	11.9%
492	Arlington/Expo to Wilshire/Western Sta	95	2%	298	2%	0.22	25%	24.9	24%	34	7%	11.9%
493	Gridley/187th to Norwalk Sta	33	1%	524	3%	0.29	33%	13.6	13%	46	9%	11.8%
494	Zelzah/Devonshire to Rinaldi/Haskell	59	1%	340	2%	0.23	26%	23.3	22%	35	7%	11.8%
495	Victory/Riverside to Burbank Sta	110	2%	317	2%	0.22	25%	18.3	18%	57	11%	11.7%
496	Silver Lake/Rowena to Broadway/Central	63	1%	392	2%	0.27	31%	17.2	17%	36	7%	11.7%
497	Indiana Sta to Rowan/Dozier	115	2%	121	1%	0.15	17%	32.9	32%	32	6%	11.7%
498	Norwalk Sta to Workman/College	23	0%	539	3%	0.30	34%	12.2	12%	46	9%	11.7%

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499	Foothill/Van Nuys to Olive View Med Ctr	93	2%	414	3%	0.18	21%	23.0	22%	51	10%	11.6%
500	Moorpark/Van Nuys to Universal/Studio City Sta	82	2%	385	2%	0.21	24%	20.9	20%	45	9%	11.5%
501	NoHo Sta to Burbank Sta	60	1%	250	2%	0.22	26%	24.1	23%	28	6%	11.5%
502	Lakewood Center Mall to Paramount/Artesia	65	1%	290	2%	0.20	23%	24.7	24%	36	7%	11.5%
503	13th/Gaffey to Western/1st	109	2%	466	3%	0.19	22%	18.6	18%	61	12%	11.4%
504	Hawthorne/182nd to Crenshaw/Redondo Beach	95	2%	704	4%	0.16	18%	10.9	10%	110	22%	11.4%
505	Olive/San Fernando to San Fernando/Western	58	1%	405	2%	0.25	29%	16.9	16%	40	8%	11.4%
506	1st/Olive to Burbank Station	223	5%	309	2%	0.09	10%	23.5	23%	85	17%	11.3%
507	Platt/Victory to Topanga Cyn/Victory	113	2%	409	3%	0.12	14%	22.7	22%	79	16%	11.3%
508	Chatsworth Sta to CSUN Transit Ctr	74	2%	387	2%	0.21	24%	19.7	19%	46	9%	11.2%
509	Chatsworth Sta to Devonshire/Reseda	68	1%	353	2%	0.19	22%	23.1	22%	41	8%	11.2%
510	Washington/Lake to Jet Propulsion Lab	87	2%	311	2%	0.16	19%	25.0	24%	48	10%	11.2%
511	Warner Ctr to West Hills Medical Ctr	45	1%	302	2%	0.22	25%	21.3	20%	34	7%	11.1%
512	Westlake/Wilshire to Wilshire/Flower	203	4%	351	2%	0.12	14%	21.3	21%	71	14%	11.1%
513	Hollywood/Magnolia to Burbank Airport	66	1%	404	2%	0.22	26%	17.3	17%	45	9%	11.0%
514	Winnetka/Ventura to Tampa Sta	72	1%	259	2%	0.17	19%	26.8	26%	35	7%	11.0%
515	Chatsworth Sta to Nordhoff Sta	139	3%	500	3%	0.10	12%	14.5	14%	115	23%	10.9%
516	Grandee/Century to Gage/Pacific	64	1%	184	1%	0.23	26%	20.1	19%	32	6%	10.9%
517	Highland/Santa Monica to Hollywood Bl	219	5%	303	2%	0.14	16%	22.0	21%	55	11%	10.9%
518	PCH/Heathcliff to Malibu Canyon/Civic Center	19	0%	625	4%	0.27	31%	7.8	7%	57	11%	10.8%
519	Maie/Firestone to Willowbrook/Rosa Parks	20	0%	105	1%	0.26	30%	21.7	21%	10	2%	10.8%
520	Raymond/Glenarm to Colorado/Los Robles	213	4%	383	2%	0.10	11%	16.9	16%	99	20%	10.8%
521	Colorado/Los Robles to New York/Allen	133	3%	229	1%	0.12	14%	27.1	26%	48	10%	10.7%
522	7th/Channel to Gridley/187th	27	1%	435	3%	0.24	27%	14.2	14%	46	9%	10.7%
523	Sierra Madre Villa Sta to Washington/Lake	52	1%	440	3%	0.23	26%	13.0	12%	48	10%	10.4%
524	Balboa/Foothill to Sylmar Sta	62	1%	261	2%	0.16	18%	24.2	23%	39	8%	10.4%
525	Valley College Sta to Ventura/Goodland	77	2%	305	2%	0.17	19%	20.6	20%	46	9%	10.3%
526	Rinaldi/Haskell to Sylmar Station	61	1%	296	2%	0.20	23%	19.5	19%	35	7%	10.3%
527	El Monte Sta to The Shops at Montebello	74	2%	287	2%	0.17	20%	21.0	20%	42	8%	10.3%
528	Colorado/Los Robles to Atladena/Lake	125	3%	259	2%	0.13	15%	23.3	22%	51	10%	10.3%
529	Van Ness/Florence to Arlington/Expo	59	1%	279	2%	0.21	24%	18.7	18%	34	7%	10.2%
530	Los Robles/Valley to Fair Oaks/Colorado	63	1%	490	3%	0.19	22%	11.7	11%	64	13%	10.1%
531	Verdugo/Eagle Rock to Colorado	107	2%	304	2%	0.13	15%	20.4	20%	59	12%	10.1%
532	Manchester/Market to Redondo Beach Sta	57	1%	164	1%	0.15	17%	25.9	25%	27	5%	10.0%
533	Manchester/Figueroa to Figueroa/39th	1	0%	131	1%	0.40	46%	1.5	1%	8	2%	10.0%
534	Agoura/Westlake to Dorothy/Chesebro	34	1%	371	2%	0.22	26%	13.4	13%	40	8%	9.9%
535	Westfield Santa Anita to Sierra Madre Villa Sta	48	1%	404	2%	0.21	24%	12.5	12%	48	10%	9.8%
536	Washington Fairfax TC to Jefferson/La Cienega	148	3%	365	2%	0.09	10%	13.8	13%	101	20%	9.8%
537	Sierra Madre Villa Sta to Santa Anita/Huntington	55	1%	407	2%	0.18	21%	13.8	13%	56	11%	9.8%
538	Live Oak/Santa Anita to Myrtle/Longden	101	2%	302	2%	0.10	12%	19.2	18%	72	14%	9.8%
539	West Hills Medical Ctr to Saticoy/Topanga Cyn	31	1%	336	2%	0.24	28%	12.1	12%	35	7%	9.8%
540	Woodman/Oxnard to Moorpark/Van Nuys	78	2%	243	1%	0.14	16%	22.4	22%	38	8%	9.7%
541	Garvanza/Avenue 63 to Garfield/Atlantic	73	2%	263	2%	0.16	18%	19.3	19%	41	8%	9.7%
542	Burbank Airport to Sunland/San Fernando	64	1%	302	2%	0.17	19%	17.3	17%	45	9%	9.6%
543	Hill/Colorado to Mendocino/Lake	51	1%	195	1%	0.18	21%	16.8	16%	43	9%	9.6%
544	Woodley/Nordhoff to Sepulveda/Rinaldi	54	1%	237	1%	0.16	18%	20.1	19%	37	7%	9.5%
545	Olympic/Rio Vista to Indiana/Olympic	76	2%	164	1%	0.12	14%	25.3	24%	34	7%	9.5%
546	Plaza El Segundo to Douglas Sta	100	2%	321	2%	0.13	14%	16.5	16%	64	13%	9.4%
547	Florence/Otis to Atlantic/Imperial	52	1%	276	2%	0.19	22%	15.8	15%	36	7%	9.4%
548	Balboa/Moorpark to Balboa Sta	73	2%	247	2%	0.15	17%	20.1	19%	39	8%	9.4%

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549	Warner Ctr to Topanga Cyn/Ventura	96	2%	313	2%	0.13	15%	17.6	17%	53	11%	9.4%
550	Alondra/Studebaker to Bloomfield/Park	54	1%	237	1%	0.16	19%	17.5	17%	36	7%	9.1%
551	Thousand Oaks Transit Ctr to Agoura/Westlake	52	1%	244	1%	0.15	17%	18.0	17%	40	8%	9.0%
552	Lakewood/Somerset to Downey Depot	57	1%	175	1%	0.15	17%	20.5	20%	30	6%	8.9%
553	Willowbrook Sta to Firestone/Santa Fe	62	1%	211	1%	0.15	17%	18.6	18%	36	7%	8.9%
554	City of Hope Sta to Westfield Santa Anita	46	1%	171	1%	0.14	16%	20.1	19%	30	6%	8.7%
555	Figueroa/39th to Union Sta	12	0%	77	0%	0.24	27%	14.8	14%	8	2%	8.7%
556	Slauson/Atlantic to Cecelia/Atlantic	77	2%	186	1%	0.12	14%	19.4	19%	38	8%	8.6%
557	Balboa/Rinaldi to Foothill	20	0%	335	2%	0.20	23%	8.7	8%	39	8%	8.3%
558	Van Ness/Imperial to Van Ness/Florence	38	1%	235	1%	0.17	20%	12.9	12%	34	7%	8.3%
559	Cypress/Verdugo to Eagle Rock	112	2%	222	1%	0.09	11%	15.5	15%	59	12%	8.2%
560	Burbank/Yolanda to Van Nuys Orange Line Sta	33	1%	183	1%	0.16	19%	15.5	15%	28	6%	8.2%
561	Hawthorne/Lennox Sta to Inglewood Transit Ctr	22	0%	32	0%	0.10	11%	28.4	27%	8	2%	8.1%
562	Tampa/Nordhoff to Rinaldi/Porter Ranch	48	1%	188	1%	0.12	14%	18.0	17%	35	7%	8.1%
563	Carson Plz Dr to San Pedro/Rosecrans	41	1%	232	1%	0.10	12%	15.3	15%	56	11%	8.0%
564	Indiana Sta to ELAC TC	63	1%	189	1%	0.13	15%	15.7	15%	36	7%	8.0%
565	Zelzah/Ventura to White Oak/Victory	57	1%	166	1%	0.11	13%	18.4	18%	35	7%	7.9%
566	Raymond/Colorado to Hill/Del Mar	28	1%	52	0%	0.15	17%	19.6	19%	14	3%	7.9%
567	Redondo Beach Sta to Manhattan Beach/Crenshaw	18	0%	81	0%	0.15	18%	18.0	17%	13	3%	7.7%
568	Saticoy/Lankershim to Burbank Airport	42	1%	166	1%	0.13	15%	15.8	15%	32	6%	7.7%
569	South Bay Transit Ctr to Prairie/El Segundo	36	1%	126	1%	0.12	14%	18.0	17%	26	5%	7.6%
570	Prairie/El Segundo to Manchester/Market	34	1%	145	1%	0.14	16%	15.6	15%	26	5%	7.6%
571	Rinaldi/Porter Ranch to Nordhoff/Corbin	39	1%	181	1%	0.12	13%	15.5	15%	35	7%	7.5%
572	Torrance/Broadway to Artesia/PCH	51	1%	236	1%	0.13	15%	11.2	11%	45	9%	7.5%
573	Mariachi Plaza to Indiana Sta	57	1%	161	1%	0.11	13%	14.8	14%	36	7%	7.3%
574	Vermont Sta to Van Ness/Imperial	35	1%	157	1%	0.12	13%	14.8	14%	34	7%	7.2%
575	Culver City TC to Washington/Palawan	10	0%	124	1%	0.21	24%	8.3	8%	15	3%	7.1%
576	PCH/Heathcliff to Dume	4	0%	55	0%	0.18	21%	12.9	12%	7	1%	7.1%
577	Willowbrook/Compton to Willowbrook/Rosa Parks Sta	25	1%	58	0%	0.10	11%	21.1	20%	15	3%	7.1%
578	Sunset/Western to Sunset/Vermont	46	1%	73	0%	0.10	12%	19.0	18%	18	4%	7.0%
579	Sierra Madre Villa Sta to Lake/Fontanet	26	1%	164	1%	0.14	16%	12.0	12%	30	6%	7.0%
580	Manhattan Beach/Valley to Redondo Beach Sta	16	0%	85	1%	0.16	19%	12.6	12%	13	3%	6.9%
581	Chatsworth Sta to Topanga Cyn/Nordhoff	51	1%	202	1%	0.08	9%	11.6	11%	55	11%	6.8%
582	Westfield Santa Anita to Sierra Madre Villa Sta	30	1%	164	1%	0.14	16%	11.1	11%	30	6%	6.8%
583	NoHo Sta to Tobias/Parthenia	7	0%	50	0%	0.16	18%	14.4	14%	8	2%	6.8%
584	Eagle Rock/York to York/Colorado	62	1%	103	1%	0.05	6%	16.4	16%	49	10%	6.7%
585	LAX to Imperial/Main	29	1%	129	1%	0.10	12%	9.8	9%	50	10%	6.5%
586	MLK Jr. TC to Willowbrook/Rosa Parks Sta	53	1%	94	1%	0.04	5%	13.5	13%	59	12%	6.2%
587	Del Amo Sta to Artesia Sta	16	0%	69	0%	0.12	13%	13.8	13%	15	3%	6.1%
588	USC Med Center Sta to Mariachi Plaza	52	1%	92	1%	0.06	7%	13.1	13%	36	7%	5.8%
589	Avalon/D to Del Amo Sta	9	0%	71	0%	0.13	15%	9.8	9%	14	3%	5.5%
590	Manhattan Beach/Crenshaw to Hawthorne/Lennox	14	0%	47	0%	0.09	10%	12.4	12%	13	3%	5.1%
591	Santa Monica/St. Andrews to Sunset/Western	33	1%	36	0%	0.05	6%	13.6	13%	18	4%	4.7%
592	Artesia Sta to Willowbrook/Compton	13	0%	55	0%	0.09	10%	9.4	9%	15	3%	4.6%
593	Aviation Sta to Pacific Concourse Loop	30	1%	35	0%	0.05	6%	10.9	10%	26	5%	4.5%
594	Palos Verdes/Seacove to Hawthorne/Palos Verdes	5	0%	122	1%	0.10	11%	3.1	3%	31	6%	4.3%
595	Chevy Chase/Glenoaks to Arcade/Story	18	0%	73	0%	0.08	9%	6.7	6%	23	5%	4.2%
596	Inglewood TC to Slauson/Crenshaw	10	0%	20	0%	0.08	9%	9.5	9%	10	2%	4.1%
597	Slauson/Crenshaw to Inglewood TC	4	0%	17	0%	0.07	8%	3.7	4%	10	2%	2.7%
598	Pacific Concourse Loop to Aviation Sta	1	0%	7	0%	0.05	6%	1.3	1%	5	1%	1.7%

ATTACHMENT F SERVICE DESIGN CONCEPTS

NextGen service design concepts are being developed and used to redesign the Metro bus network. These concepts are guidelines established based on the feedback received through the various stakeholder and public outreach sessions. Network characteristics most important to the public include:

- Faster service
- Frequent service throughout the day
- More reliable service
- Better network connectivity
- Accessibility to key destinations
- Improved security

Based on these service themes, the following service design concepts will guide the redesign of the Metro bus network:

Hybrid Local/Rapid Stop Spacing – Currently stop spacing is determined by route classification. For example, local lines are planned with ¼ mile stop spacing while Rapid lines have ¾ to 1 mile stop spacing. As a result, customers travelling on local lines go slower between communities but have closer access to origins and destinations. Conversely, Rapid customers travel faster along a corridor, but may be picked up or dropped off much further from their origin or destination. In addition, resources are split between the local and Rapid lines resulting in wider headways for each service. Therefore, overall end to end travel time including walking/rolling to the stop, waiting for the bus and finally the in-vehicle run time may result in longer travel times on the Rapid, especially for shorter distance trips.

Consolidating local and Rapid resources along a corridor will provide much better headways, and customizing stop spacing along the corridor based on changing land use densities along a corridor results in shorter wait times, faster on board travel times compared to the local, and shorter walk/roll compared to Rapid service. In addition, this standardizes the frequency along the entire corridor, vs inconsistent frequencies between local and Rapid services that have different speeds.

Shorter Route Lengths and Subarea Transit Hubs – The cell phone location based data indicates that almost half of all travel in Los Angeles County are within 1 to 5 miles. In addition, the origin-destination travel patterns indicate that many people travel locally and not necessarily regionally across the region. Creating shorter route lengths will improve schedule reliability. Being able to tie the lines to subarea transit hubs will improve network efficiencies and provide a safer and more convenient location for transfers.

Municipal Operator Coordination – Roughly one third of transit service in LA County is provided by municipal bus operators and Metrolink. Their coverage is especially strong in Santa Monica, South Bay, Gateway Cities, and eastern San Gabriel Valley. Therefore, it is imperative that Metro bus service is closely coordinated with municipal transit service. Given that several of the municipal operators are currently undergoing their own system redesigns, there is an opportunity to work together to develop service change ideas between Metro and municipal services to improve overall coordination for customers.

Microtransit and Other On-Demand – Some areas of the County are difficult to serve with fixed route transit due to terrain, narrow streets, and dispersed lower density destinations. In addition, travel activity in some areas are low during certain times of day or days of week. Metro is currently piloting Mobility on Demand and will be implementing a pilot program for Microtransit. These service modes may be more appropriate for areas and times of day where fixed route cannot be competitive and will be considered for application in lieu of fixed route if warranted.

Standardize Frequencies by Service Tiers – Currently, schedules are written based on the Board adopted load standard for frequent services (15 min or better) and based on policy for in-frequent services (wider than 15 min). To ensure the core network has consistent frequencies and span of service, corridors will be categorized into tiers based on transit propensity, current ridership, and overall travel demand. Each tier will be assigned a frequency designation (e.g. 10 min peak/12 min base) to ensure that all services within the tier provide consistent service levels for ease of transfer along the network. If a line requires better frequencies than the tier designation, it will be set based on the Board adopted load standard.

Routing to Reflect Current Travel Patterns and Transit Propensity – Currently corridors are being evaluated by segments. Based on the origin – destination travel patterns identified using the cell phone location based data as well as regional TAP data, the segments will be connected together to create lines. Better aligning the routing with travel patterns is expected to reduce the number of transfers required to make a trip and increase the distance travelable and access to opportunities along the network within 15 min, 30 min, etc. While resources will be focused in areas with high transit propensity, there will be a concerted effort to maintain service in areas of low demand but with the greatest mobility needs.

Transit Supportive Infrastructure – The service design will identify transit supportive infrastructure that either improves overall travel time and reliability or reduces inefficiencies in the network. Speed and reliability improvements include bus only lanes, queue jumpers, bus bulb outs, signal retiming, All Door Boarding, fare payment technology, etc. improves the attractiveness and competitiveness of transit while reducing revenue hours that can be reapplied to better use. Infrastructure that optimizes terminals and layover locations, reduce out of direction movements, and improves transfer movements will reduce non-revenue miles and hours that can be reallocated to revenue service.

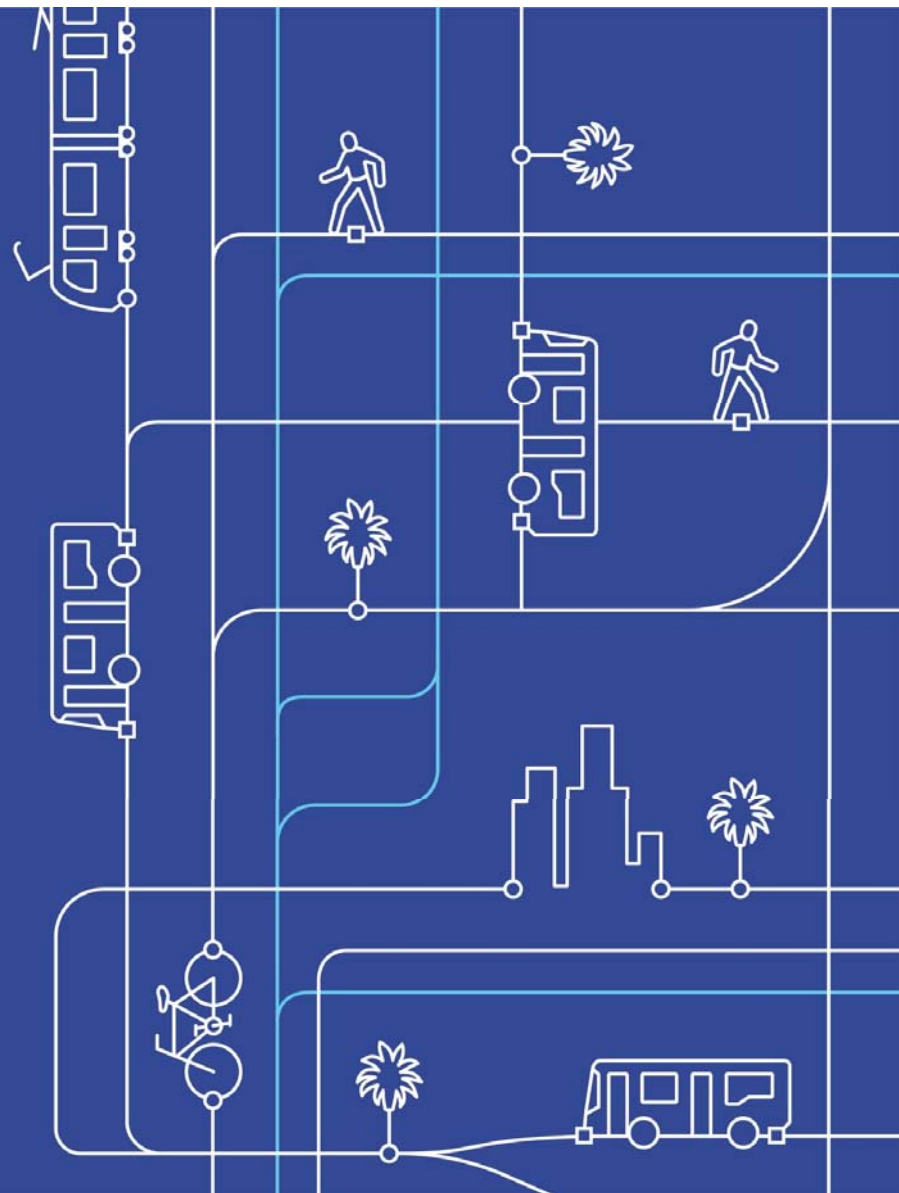
Table 1 illustrates how each service concept will address the various themes expressed by the public and stakeholders.

Table 1
Service Design Concepts

	Faster service	Frequent service throughout the day	More reliable service	Better network connectivity	Accessibility to key destinations	Improved security
Routing to Reflect Current Travel Patterns and Transit Propensity				X	X	X
Standardize Frequencies by Service Tiers	X	X				
Subarea Transit Hubs				X		X
Shorter Route Lengths			X			
Hybrid Local/Rapid Stop Spacing	X		X			
Municipal Operator Coordination				X	X	
Microtransit and Other On-Demand		X			X	
Transit Supportive Infrastructure	X		X			X

NEXTGEN Bus Study

Regional Service Concept
(Planning Framework)
July 2019

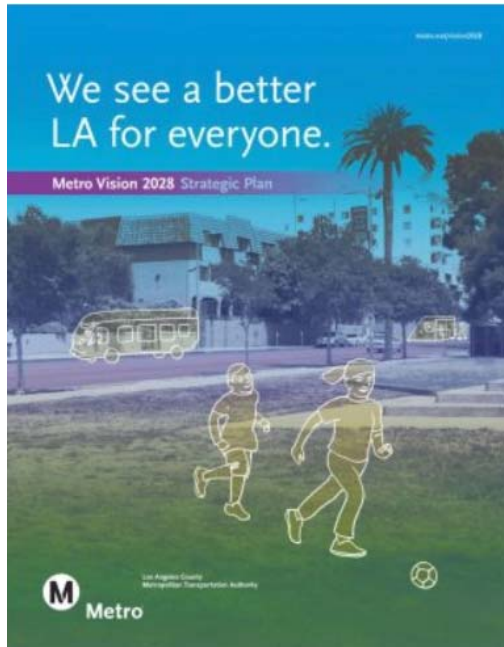


Recommendation

APPROVE:

- A. Regional Service Concept, which is the **framework** for restructuring Metro's bus routes and schedules for NextGen and includes:
 - 1. Goals and objectives of the new bus network
 - 2. Measures of success
 - 3. Route and network design concepts based on public input and data analysis
 - 4. Framework for balancing tradeoffs that consider Metro's Equity Platform
- B. Following approval by all five Regional Service Councils, the Board shall then approve the final NextGen Service Plan

Bus Network Goals and Objectives



Provide high quality mobility options that enable people to spend less time traveling (Metro Vision 2028)

- Target infrastructure and service investments towards those with the greatest mobility needs
- Invest in a world class bus system that is reliable, convenient, and attractive to more users for more trips
- Endorse travel speed, service frequency, and system reliability as the highest priority service design objectives for the NextGen Bus Study (Motion 38.1)
- Optimize system performance to maximize benefit to the public

How Can Metro Help Equitably Grow Transit Ridership?



How well do people understand how effectively transit can serve their needs? Is the system **easy to understand & find**?

How can we encourage people to try transit? Does transit go where & when they need it to? Is transit **competitive with other options**? Is the service attractive?

Once people have tried transit, how can we attract them to use it more often? Is service **fast, frequent & reliable** enough to retain riders & entice occasional/infrequent riders?

Metro's Equity Platform in Action NextGen Goes Beyond Title VI/EJ

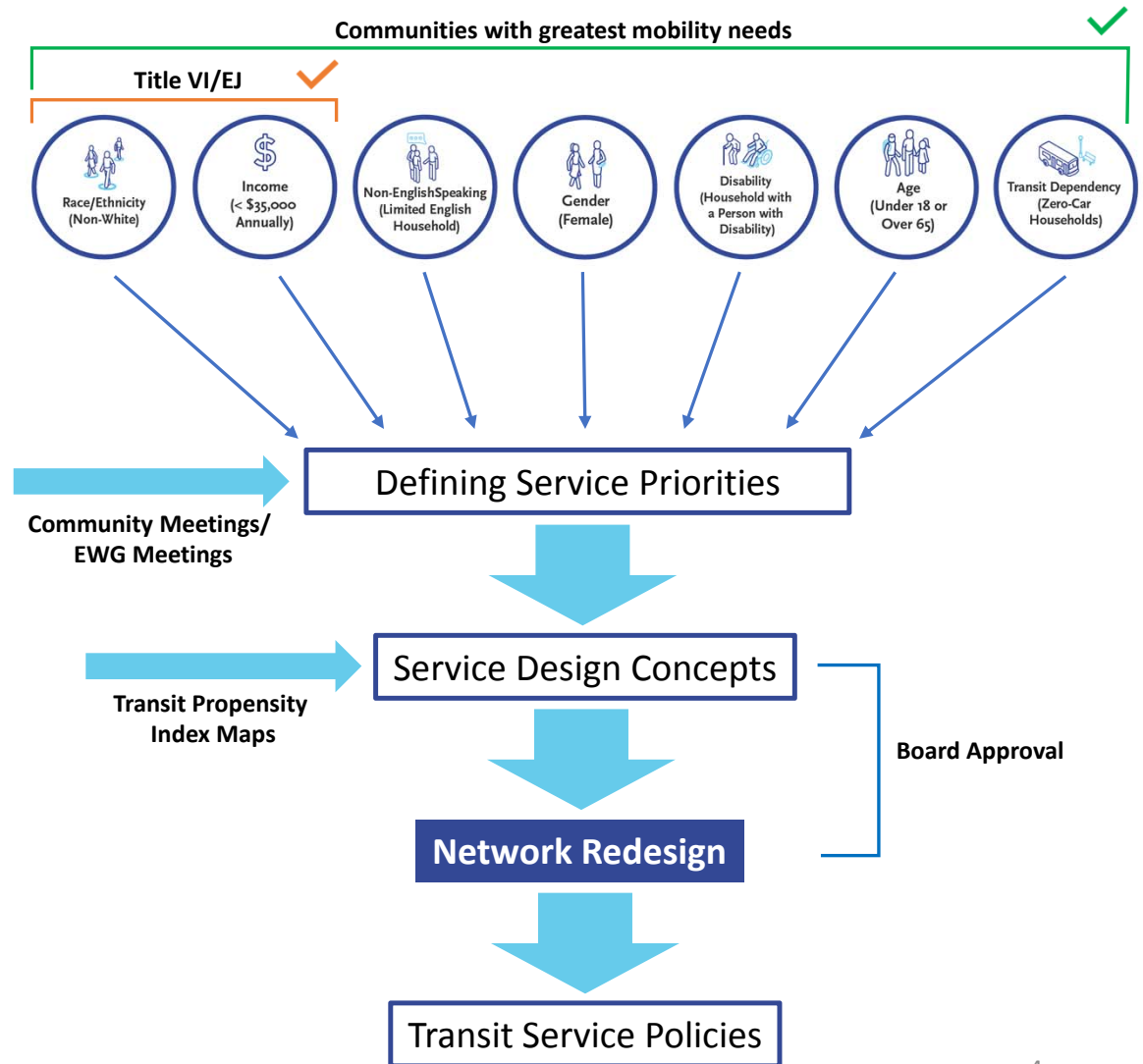
Title VI/EJ protects against making opportunities worse for minority and/or low income groups.

Metro enhances Title VI/EJ in its Equity Platform by:

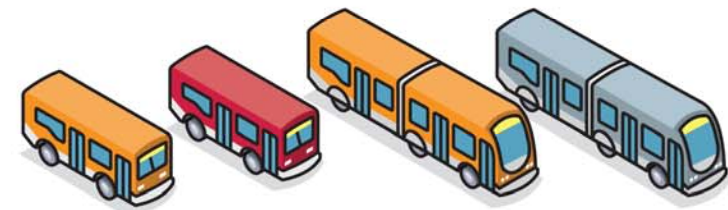
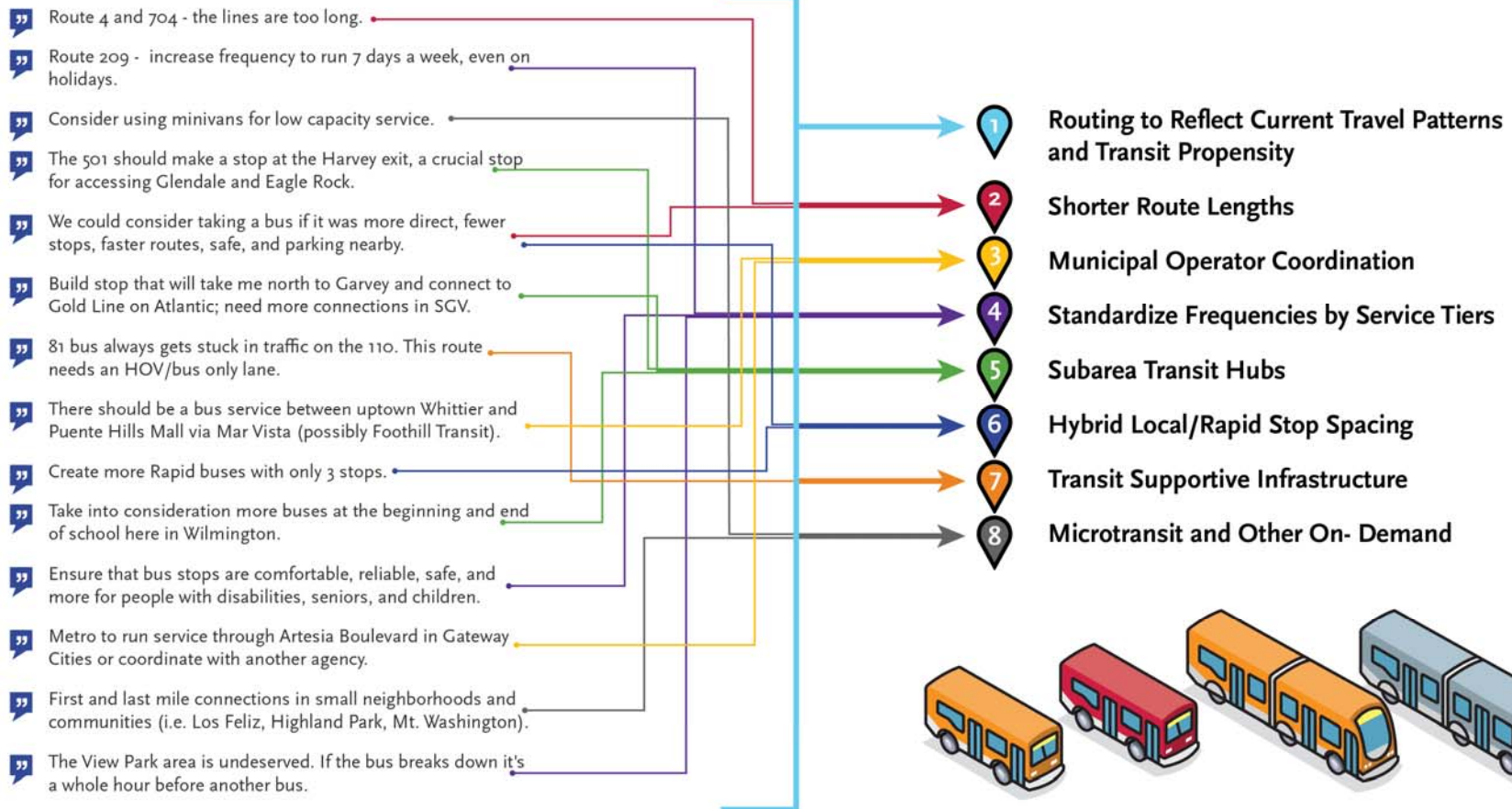
- Going above and beyond to improve service for communities with greatest mobility needs
- Inclusiveness beyond ethnicity and income

Folding the Equity Framework into NextGen

- DEFINE & MEASURE**
- Use Title VI/EJ and Performance Measures to ensure we are achieving our equity objectives
- LISTEN & LEARN**
- Use survey results to help define what improvements are wanted/needed
 - Verify results through outreach and engagement
- FOCUS & DELIVER**
- NextGen service design concepts and network redesign based on transit propensity, service performance, service environment and public feedback
- TRAIN & GROW**
- Refresh Board adopted policies based on NextGen service design concepts



How is the public's feedback incorporated into service design concepts?



Network Development Process



**Transit
Propensity**



**Service
Performance**

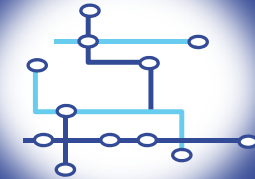


**Service
Environment**

Transit Orientation

Fixed route bus service succeeds when:

- There is a high concentration of travel where transit can be competitive, AND
- Current transit service is well aligned with the demand, AND
- The built environment & other external factors favor transit use.



Service Design Concepts

Design Considerations

Bus service must be designed to the specifications of individual markets based on:

- Time of day/day of week, AND
- Trip distance, AND
- Demographics served, AND
- External factors impacting transit competitiveness

NextGen Service Plan Implementation Schedule

Month	Milestone
July 2019	<ul style="list-style-type: none"> • Board approval of Regional Service Concept (planning framework)
September 2019	<ul style="list-style-type: none"> • Complete Draft Service Plan
October to November 2019	<ul style="list-style-type: none"> • Board staff workshops • External Working Group review of Draft Service Plan
December 2019	<ul style="list-style-type: none"> • Refine Draft Service Plan for public review
Starting January 2020	<ul style="list-style-type: none"> • Board approval of revised Transit Service Policy • Public and stakeholder workshops and outreach on Draft Service Plan • Conduct public hearings on Draft Service Plan • Service Council approval of proposed Final Service Plan • Board approval of Final Service Plan • Implementation of Service Plan



Board Report

File #: 2019-0442, File Type: Appointment

Agenda Number: 23.

**OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE
JULY 18, 2019**

SUBJECT: MEMBERSHIP ON METRO’S SERVICE COUNCILS

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

APPROVE Diane Velez for membership on Metro’s San Gabriel Valley Service Council.

ISSUE

The term of a member of the San Gabriel Valley Service Council expired June 30, 2019. The term of the now-vacant seat is July 1, 2019 - June 30, 2022.

DISCUSSION

Metro seeks to appoint Service Council members reflective of the demographics of each respective region. The 2010 Census demographics of each of the Service Council regions are as follows:

% Sector Total	Hispanic	White	Asian	Black	Other	Total Pop
Gateway Cities	63.9%	16.7%	8.5%	8.6%	2.3%	100.0%
San Fernando Valley	41.0%	42.0%	10.7%	3.4%	2.9%	100.0%
San Gabriel Valley	50.0%	19.9%	24.9%	3.3%	2.0%	100.0%
South Bay	42.5%	23.8%	12.0%	18.3%	3.4%	100.0%
Westside/Central	43.5%	30.7%	13.0%	10.0%	2.8%	100.0%
Service Area Total	48.5%	26.8%	14.0%	8.2%	2.6%	100.0%

Diane Velez has been nominated to serve by the San Gabriel Valley Council of Governments, the nominating authority for this seat on the San Gabriel Valley Service Council. If approved by the Board, Ms. Velez will serve the remainder of the seat’s three-year term. A brief listing of her qualifications is provided along with the nomination letter from the nominating authority.

San Gabriel Valley

- A. Diane Velez, San Gabriel Valley Service Council, New Appointment
Nominated by: San Gabriel Valley Council of Governments

Term Ending: June 30, 2022

The demographic makeup of the San Gabriel Valley Service Council with the appointment of this nominee will consist of four (4) White members, three (3) Hispanic members, one (1) Asian member, and one (1) Native American member as self-identified by the members in terms of racial/ethnic identity. The gender breakdown of the Council will be seven (7) men and two (2) women.

DETERMINATION OF SAFETY IMPACT

Maintaining the full complement of representatives on each Service Council to represent each service area is important. As each representative is to be a regular user of public transit, and each Council is composed of people from diverse areas and backgrounds, this enables each Council to better understand the needs of transit consumers including the need for safe operation of transit service and safe location of bus stops.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal: 3) Enhance communities and lives through mobility and access to opportunity.

ALTERNATIVES CONSIDERED

The alternative to approving this appointment would be for this nominee to not be approved for appointment. To do so would result in reduced effectiveness of the Service Council, as it would increase the difficulty of obtaining the quorum necessary to allow the Service Council to formulate and submit their recommendations to the Board. It would also result in the Service Council having less diverse representation of their respective service area.

NEXT STEPS

Staff will continue to monitor the major contributors to the quality of bus service from the customer's perspective and share that information with the Service Councils for use in their work to plan and to implement and improve bus service in their areas and the customer experience using our bus service.

ATTACHMENTS

Attachment A - Nominee's Listing of Qualifications
Attachment B - Nomination Letter

Prepared by: Conan Cheung, Sr. Executive Officer of Service Development, Scheduling and Analysis, (213) 418-3034
Dolores Ramos, Chief Administrative Analyst, Regional Service Councils, (213) 922-1210

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108



Phillip A. Washington
Chief Executive Officer

NEW APPOINTEES BIOGRAPHIES AND QUALIFICATIONS

Diane Velez, Nominee for San Gabriel Valley Service Council



A lifelong resident of the City of Baldwin Park, Diane Velez currently works as a Program Specialist with Active SGV, a local nonprofit with a mission to support a more sustainable, equitable, and livable San Gabriel Valley. Prior to joining Active SGV, Ms. Velez was a Community Engagement Specialist with Multicultural Communities for Mobility, where she researched barriers to bike share usage in downtown Los Angeles. She previously worked as a Program Consultant with Women Care Global, where she supported studies of women’s reproductive health.

Ms. Velez has been a Hispanic Scholarship Fund volunteer since 2016 and is a previous CicLAvia volunteer. Ms. Velez holds a Bachelor of Arts degree in anthropology from University of California, Los Angeles, and a Master of Public Health from San Diego State University.

APPOINTING AUTHORITY NOMINATION LETTER



June 20, 2019

OFFICERS

- President*
Cynthia Sternquist
- 1st Vice President*
Margaret Clark
- 2nd Vice President*
Becky Shevlin
- 3rd Vice President*
Tim Hepburn

Mr. Gary Spivack
 Deputy Executive Officer, Metro Service Councils
 1 Gateway Plaza, MS 99-7-2
 Los Angeles, CA 90012

RE: Metro’s San Gabriel Valley Service Council Representatives

MEMBERS

- Alhambra*
- Arcadia*
- Azusa*
- Baldwin Park*
- Bradbury*
- Claremont*
- Covina*
- Diamond Bar*
- Duarte*
- El Monte*
- Glendora*
- Industry*
- Irwindale*
- La Cañada Flintridge*
- La Puente*
- La Verne*
- Monrovia*
- Montebello*
- Monterey Park*
- Pomona*
- Rosemead*
- San Dimas*
- San Gabriel*
- San Marino*
- Sierra Madre*
- South El Monte*
- South Pasadena*
- Temple City*
- Walnut*
- West Covina*
- First District, LA County*
Unincorporated Communities
- Fourth District, LA County*
Unincorporated Communities
- Fifth District, LA County*
Unincorporated Communities
- SGV Water Districts*

Dear Mr. Spivack:

At their June 6, 2019 meeting, the San Gabriel Valley Council of Governments’ Governing Board appointed Diane Velez to serve on the San Gabriel Valley Metro Service Council. The effective term will be July 1, 2019 – June 30, 2022. Should you have any questions, please feel free to contact me at (626) 457-1800.

Sincerely,

Marisa Creter
 Executive Director
 San Gabriel Valley Council of Governments

cc: Diane Velez

**Board Report**

File #: 2019-0151, **File Type:** Contract**Agenda Number:** 24.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JULY 18, 2019****SUBJECT: A650 HEAVY RAIL VEHICLE OVERHAUL AND CRITICAL COMPONENT
REPLACEMENT PROGRAM****ACTION: APPROVE RECOMMENDATIONS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to:

- A. INCREASE the Life-of-Project (LOP) budget to Contract No. A650-2015, for the Heavy Rail Vehicle Overhaul and Critical Component Replacement Program (OCCRP), by \$6,047,723 increasing the total Life-of-Project (LOP) budget from \$99,061,908 to \$105,109,632;
- B. EXECUTE Contract Modification No. 4 to Contract No. A650-2015, with Talgo Inc., for the Heavy Rail Vehicle Overhaul and Critical Component Replacement Program (OCCRP), for the truck frame inspection and repair services in the firm-fixed price amount of \$5,054,030; and
- C. EXECUTE Contract Modifications under this Contract for up to \$1,000,000 per Contract Modification.

ISSUE

During a routine vehicle inspection, cracks were identified on the truck frames of the original Option A650 heavy rail vehicle fleet. This fleet, consisting of 74 heavy rail vehicles and twelve (12) spare truck frames, is currently undergoing a modernization effort. Inspection services are required to identify additional truck frames present with cracks among the fleet. Repair services are required should cracks be identified during the inspection effort.

Inspecting and repairing the vehicle truck frame is a good engineering practice for the foundation of the whole rail vehicle and promotes the safety of the rail vehicle's critical sub-systems. Having a single reliable firm perform this work will streamline the inspection, repairs and warranty process and minimize the impacts to revenue service.

BACKGROUND

The Metro Red Line opened in January 1993. The existing Option Order vehicles have been in

revenue service for an average of twenty-five (25) years.

Metro places the highest priority on the safety of our customers, the public, and our employees. To that extent, there is a constant focus on taking proactive measures to maintain our rail vehicle fleet in a State of Good Repair and seek innovative approaches to prevent accidents on our rail system.

During a routine vehicle inspection, cracks were observed on a number of truck frames used on the A650 Heavy Rail Vehicles. Metro's Rail Vehicle Engineering (RVE) immediately developed an inspection and repair procedure, which included using magnetic particle inspection (MPI) on all mating members, welds and beam surfaces. Two (2) of the truck frames that were found to have cracks were then sent out to a local vendor for additional inspection, then repaired. It was then determined that the entire fleet would require inspection and repair if needed.

Several inspection and repair options were considered to avoid impacting revenue service and the ongoing modernization effort, including using a local vendor to perform this work. However, it was determined that having Talgo perform the inspection and repair on all 74 Option A650 heavy rail vehicles and twelve (12) spare truck frames currently undergoing a modernization effort was the fastest and most economical way forward with the least impact to revenue service and the ongoing modernization effort.

DISCUSSION

To mitigate this issue, staff proposes performing non-destructive testing (NDT) on all 74 Option A650 heavy rail vehicles and twelve (12) spare truck frames currently undergoing a modernization effort. After the testing is complete, truck frames identified with cracks shall be repaired and repainted prior to re-assembly.

If the contract modification is approved, Talgo Inc. shall perform the testing and inspection on the 74 Option A650 heavy rail vehicles currently undergoing a modernization effort and the twelve (12) spare truck frames.

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) goal for this procurement as it is not applicable. This procurement falls under the Federal Transit Administration's (FTA) Transit Vehicle Manufacturer (TVM) goal in accordance with 49 Code of Federal Regulations (CFR) Part 26.49. However, Talgo Inc. has established a 6.51% DBE goal under the FTA TVM goal.

DETERMINATION OF SAFETY IMPACT

Approval of this item will have a direct and positive impact to system safety, service quality, system reliability, maintainability and overall customer satisfaction.

FINANCIAL IMPACT

The approved LOP budget for CP 206038 - A650 HRV Midlife Modernization Project is \$99,061,908. This amount includes funds for the HRV Modernization project and Contract Modification No.1, 2 and

3. There are also funds allocated for Professional Services, Metro Labor, and Project Contingency. The requested LOP increase of \$6,047,723 also includes other technical and program management support services. The LOP will increase from \$99,061,908 to \$105,109,632.

This contract modification action will not impact the FY20 Budget.

Since this is a multi-year contract/project, the Cost Center Manager, Project Manager, and Senior Executive Officer, Vehicle Engineering and Acquisition will be responsible for ensuring that project costs are budgeted in future Fiscal Years.

Impact to Budget

The funding sources for this project may come from Transportation Development Act (TDA) Article 4, Cap and Trade, and other State and Federal funding. Funding will be allocated as funding allocations and opportunities arise. Use of these funding sources will maximize allowable funding mechanisms given approved funding provisions.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal 5) Provide responsive, accountable, and trustworthy governance within the Metro organization. This project will improve safety, service, and reliability in an effort to provide a world-class transportation system that enhances quality of life for all who live, work, and play within LA County.

ALTERNATIVES CONSIDERED

The Board may choose not to approve these contract modifications. However, this alternative is not recommended. A catastrophic failure of the vehicle truck frame could cause a major disruption in service, thus directly impacting customer safety and customer service.

NEXT STEPS

Upon Board approval, the contract modification will be exercised with Talgo, Inc.

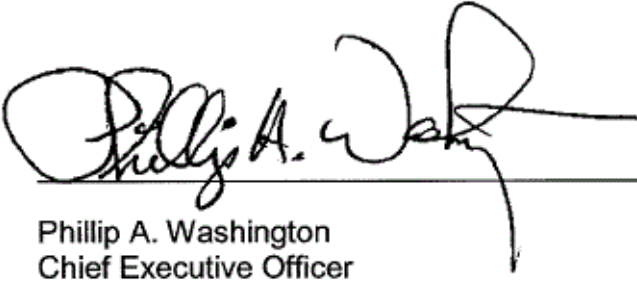
ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Contract Modification Log
Attachment D - Funding & Expenditure Plan

Prepared by: Andrew Kimani, Sr. Manager, Project Manager, (213) 922-3221
Jesus Montes, Sr. EO, Vehicle Engineering & Acquisition, (213) 418-3277

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108

Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

HEAVY RAIL VEHICLE OVERHAUL AND CRITICAL COMPONENT
REPLACEMENT PROGRAM/CONTRACT NUMBER A650-2015

1.	Contract Number: A650-2015		
2.	Contractor: Talgo, Inc.		
3.	Mod. Work Description: Add truck frame inspection and repairs to Overhaul Program		
4.	Contract Work Description: Overhaul A650 Heavy Rail Vehicles		
5.	The following data is current as of: 06.10.19		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	10.5.16	Contract Award Amount: \$54,698,676
	Notice to Proceed (NTP):	01.16.17	Total of Modifications Approved: \$30,671,726
	Original Complete Date:	11.16.19	Pending Modifications (including this action): \$ 5,054,030
	Current Est. Complete Date:	05.16.22	Current Contract Value (with this action): \$90,424,432
7.	Contract Administrator: Wayne Okubo		Telephone Number: (213)922-7466
8.	Project Manager: Andrew Kimani		Telephone Number: (213)922-3221

A. Procurement Background

This Board Action is to approve Contract Modification No. 4 issued in support of the addition of truck frame repairs to the A650 Heavy Rail Vehicle (HRV) as part of the overhaul and critical component replacement program on the Option Buy A650 consisting of 74 vehicles.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

On September 22, 2016, Metro's Board of Directors approved Board Agenda Item 2016-0538 to Talgo, Inc. in the amount of \$54,698,676 for the overhaul of 38 A650 Heavy Rail Vehicles, with the option to overhaul the remaining 36 vehicles of the newest A650 fleet. On October 26, 2017, Metro's Board of Directors approved the exercise of a Contract Option to overhaul the remaining 36 heavy rail vehicles increasing the contract value to \$72,970,494.

The intent of this overhaul program is to replace vital systems and components and update relevant technology to ensure the continued safety, reliability, availability,

and maintainability of the newest A650 heavy rail fleet for full revenue service and maintain the fleet's State of Good Repair.

This recommended Contract Modification is to add the inspection, testing, and repair of cracks discovered in the vehicle truck frame to the scope of the A650 overhaul program currently underway by Talgo. This change has merit because the work fulfills the intent of the overhaul program to ensure the safety, reliability and availability of the A650 HRVs.

B. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon cost analysis, technical evaluation, fact finding, and negotiations.

Proposal Amount	Metro ICE	Negotiated Amount
\$5,136.812	\$1,732,350	\$5,054,030

The difference between the Metro ICE and the Negotiated Amount is attributed to a number of factors that were not fully considered in the Metro ICE.

The Metro ICE was developed using direct labor rate estimates only and did not address labor or manufacturing overheads. The correct application of fully burdened labor rates would have significantly increased the ICE amount.

The Metro ICE also underestimated transportation costs. Due to the specialized nature of the work, the non-destructive testing and the repairs will be performed at a subcontractor's facility and this will require specialized transportation.

Another major factor not considered in the Metro ICE is the schedule impact. The inclusion of this work into the A650 overhaul program will require an extension of the project by 2 months. The costs associated with the schedule extension were not included in the Metro ICE. Other factors such as travel costs and profit were also not part of the Metro ICE.

DEOD SUMMARY

**HEAVY RAIL VEHICLE OVERHAUL AND CRITICAL COMPONENT
REPLACEMENT PROGRAM/CONTRACT NUMBER A650-2015**

A. Small Business Participation

Talgo Inc. is a Transit Vehicle Manufacturer (TVM) and is on the Federal Transit Administration's (FTA) list of eligible TVMs. Talgo Inc. reported that it submitted its overall Disadvantaged Business Enterprise (DBE) goal of 1.65% to FTA for FY19, in compliance with 49 Code of Federal Regulations (CFR) Section 26.49(a)(1). TVMs submit overall DBE goals and report participation directly to FTA annually.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract. Rolling stock solicitations are not one of the covered contract types in Metro's Living Wage and Service Contract Worker Retention Policy.

C. Prevailing Wage Applicability

Prevailing Wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction related value in excess of \$2.5 million.

E. Local Employment Plan Program (LEP)

Local Employment Plan Program is applicable on this contract. Staff will be monitoring progress on all LEP commitments, including the contractual commitments in creating employment opportunities in Los Angeles County and the 10% commitment to hire disadvantaged workers.

Local Employment Plan Commitment:

LEP Commitment for Base + All Options	\$2,212,675
LEP Actuals to Date	\$0.00
Balance of LEP to be attained	\$2,212,675
Disadvantaged Workers attainment	\$0.00

The manufacturer LEP Plan identifies that the LEP achievements and Disadvantaged Worker participation will commence in the assembly stage of the contract.

CONTRACT MODIFICATION/CHANGE ORDER LOG

NAME OF PROJECT/CONTRACT NUMBER

Mod. no.	Description	Status (approved or pending)	Date	\$ Amount
1	Exercise Option to overhaul 18 additional A650 HRV married pairs	Approved	10.26.17	\$18,271,818
2	Add MFSS to A650 HRV OCCRP	Approved	09.28.18	\$10,355,000
3	Add TWC to A650 HRV OCCRP	Approved	01.24.19	\$ 2,044,908
4	Add truck frame inspection and repair	Pending	07.25.19	\$ 5,054,030
	Modification Total:			\$35,725,756
	Original Contract:			\$54,698,676
	Total:			\$90,424,432

ATTACHMENT D - Funds Uses and Sources Tables

	From Inception to Date (ITD) thru FY18 Jun	7/1/18 - 6/30/19	7/1/19 - 6/30/20	7/1/20 - 6/30/21	7/1/21 - 6/30/22	7/1/22 - 6/30/23	Total	% of Project
		FY19	FY20	FY21	FY22	FY23		
Use of Funds								
Overhaul 38 Option-Buy Vehicles	\$9,846,449	\$13,468,252	\$15,985,361	\$15,398,614	\$0	\$0	\$54,698,676	83.2%
Professional Services	\$2,179,051	\$913,333	\$1,000,667	\$659,645	\$0	\$0	\$4,752,696	7.2%
MTA Administration	\$1,353,353	\$422,279	\$542,000	\$310,382	\$0	\$0	\$2,628,014	4.0%
Contingency	\$0	\$0	\$0	\$0	\$0	\$3,653,754	\$3,653,754	5.6%
38 Newest Vehicle Summary	\$13,378,853	\$14,803,864	\$17,528,028	\$16,368,641	\$0	\$3,653,754	\$65,733,139	100.0%
Contract Modifications - Option Vehicle Overhaul								
Overhaul 36 Option Vehicles	\$4,624,856	\$1,240,633	\$0	\$1,757,088	\$8,770,768	\$1,878,473	\$18,271,818	87.3%
Professional Services	\$0	\$0	\$0	\$347,840	\$249,398	\$0	\$597,238	2.9%
MTA Administration	\$0	\$0	\$0	\$124,755	\$290,000	\$22,407	\$437,162	2.1%
Contingency	\$0	\$0	\$0	\$0	\$0	\$1,622,643	\$1,622,643	7.8%
36 Option Vehicle Order Summary	\$4,624,856	\$1,240,633	\$0	\$2,229,683	\$9,310,166	\$3,523,523	\$20,928,861	100.0%
Overhaul 74 Option-Buy Vehicles	\$14,471,304	\$14,708,884	\$15,985,361	\$17,155,702	\$8,770,768	\$1,878,473	\$72,970,493	84%
Professional Services	\$2,179,051	\$913,333	\$1,000,667	\$1,007,485	\$249,398	\$0	\$5,349,934	6%
MTA Administration	\$1,353,353	\$422,279	\$542,000	\$435,137	\$290,000	\$22,407	\$3,065,176	4%
Contingency	\$0	\$0	\$0	\$0	\$0	\$5,276,397	\$5,276,397	6%
Order Summary Total	\$18,003,708	\$16,044,496	\$17,528,028	\$18,598,325	\$9,310,166	\$7,177,277	\$86,662,000	100.0%
Contract Modifications - Vehicle Contractor								
2.1. Add Fire Mist Suppression System (FMSS)	\$0	\$1,094,013	\$2,732,140	\$1,491,280	\$0	\$0	\$5,317,432	30%
2.2. Add Fire Mist Suppression System (FMSS) Option	\$0	\$0.00	\$0	\$1,240,860	\$2,732,140	\$1,064,568	\$5,037,568	29%
3.1. Add Train To Wayside Communication (TWC)	\$0	\$221,492	\$537,728	\$290,868	\$0	\$0	\$1,050,088	6%
3.2. Add Train To Wayside Communication (TWC) Option	\$0	\$0	\$0	\$246,861	\$537,728	\$210,231	\$994,820	6%
4.1. Add Truck Frame Inspection and Repair Services (Increase Requested)	\$0	\$0	\$1,867,455	\$727,858	\$0	\$0	\$2,595,313	15%
4.2 Add Truck Frame Inspection and Repair Services (Option Vehicles) (Increase Requested)	\$0	\$0	\$0	\$605,634	\$1,333,493	\$519,590	\$2,458,717	14%
38 Newest Vehicle Contract Modifications	\$0	\$1,315,505	\$5,137,323	\$2,510,006	\$0	\$0	\$8,962,833	51%
36 Option Vehicle Order Contract Modifications	\$0	\$0	\$0	\$2,093,355	\$4,603,361	\$1,794,389	\$8,491,105	49%
Total Contract Modifications - Vehicle Contractor	\$0	\$1,315,505	\$5,137,323	\$4,603,361	\$4,603,361	\$1,794,389	\$17,453,938	100%
Contract Modifications - Consultant								
1.1. Add Ten (10) Months Contract Extension Option	\$0	\$0	\$0	\$0	\$794,955	\$198,739	\$993,693	100%
38 Newest Vehicle Contract Modifications	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
36 Option Vehicle Order Contract Modifications	\$0	\$0	\$0	\$0	\$794,955	\$198,739	\$993,693	100%
Total Contract Modifications - Vehicle Contractor	\$0	\$0	\$0	\$0	\$794,955	\$198,739	\$993,693	100%
38 Newest Vehicle Summary Including Contract Modifications	\$13,378,853	\$16,119,369	\$22,665,351	\$18,878,647	\$0	\$3,653,754	\$74,695,972	71.06%
36 Option Vehicle Order Summary Including Contract Modifications	\$4,624,856	\$1,240,633	\$0	\$4,323,039	\$14,708,481	\$5,516,651	\$30,413,659	28.94%
Total New Order Summary Including Contract Modifications	\$18,003,708	\$17,360,002	\$22,665,351	\$23,201,685	\$14,708,481	\$9,170,405	\$105,109,632	100.00%
Sources of Funds		FY19	FY20	FY21	FY22	FY23	Total Sources	%
Measure R 2% (206038)	\$1,636,916	\$0	\$0	\$0	\$0	\$0	\$1,636,916	1.6%
PropA 35% Bonds/Cash	\$6,290,906	\$0	\$0	\$0	\$0	\$0	\$6,290,906	6.0%
Transportation Development Act Article 4	\$6,376,002	\$16,367,495	\$18,079,978	\$11,050,849	\$4,589,435	\$7,895,606	\$64,359,365	61.2%
Federal 5337 Funding	\$3,699,884	\$992,506	\$0	\$3,458,431	\$6,849,179	\$0	\$15,000,000	14.3%
Cap and Trade; Other State & Federal sources (206038)*	\$0	\$0	\$0	\$5,422,537	\$0	\$0	\$5,422,537	5.2%
Division 20 Portal, Turnback, and Storage Project	\$0	\$0	\$4,585,373	\$3,269,868	\$3,269,868	\$1,274,799	\$12,399,908	11.8%
* Future Local, State & Federal Funds to be identified as they become av	0	0						
Total Funding Sources	\$18,003,708	\$17,360,002	\$22,665,351	\$23,201,685	\$14,708,481	\$9,170,405	\$105,109,632	100.0%

* Staff will pursue additional funding sources to supplement Project 206038 budget which may become available through MAP-21 or other federal sources for this project and also utilize other State and Local funding sources as opportunities arise such as Cap and Trade or other new sources.



Board Report

File #: 2019-0373, File Type: Contract

Agenda Number: 25.

OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE JULY 18, 2019

SUBJECT: ENTERPRISE ASSET MANAGEMENT SYSTEM

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. ESTABLISHING a Life of Project (LOP) Budget for the Enterprise Asset Management (EAM) Project, capital project number 207155, in the amount of \$45,800,000;
- B. AUTHORIZING the Chief Executive Officer to award a 37-month, firm fixed price Contract No. PS51755000 to 21Tech LLC, in the amount of \$10,205,207 for the Enterprise Asset Management System Software Acquisition and Software Support Services, subject to the resolution of any properly submitted protest(s), if any; and
- C. APPROVING Contract Modification Authority specific to Contract No. PS51755000 in the amount of \$2,041,041 or 20% of the total contract value, to cover the costs of any unforeseen services or license fees that may be necessary to complete this phase of the project.

ISSUE

The Maintenance and Materials Management System (M3) is a mission critical system with over 3,200 daily users. M3 is used extensively across Metro for Work Management, Maintenance and Repair of Assets, Material Management, Incident Tracking, and Timekeeping for operational employees. The 15 years old system is no longer supported by the software vendor. In addition, it does not comply with some of the critical functionality now required for meeting the Federal "Moving Ahead for Progress in the 21st Century Act" (MAP 21 State of Good Repair) requirements.

This Contract is for the acquisition of the core Enterprise Asset Management System (EAMS) software as well as the installation and demonstration of its initial/provisional acceptance by Metro. The Contractor is also responsible for the integration of third-party software proposed as part of their solution.

The LOP Budget includes the purchase of software and related support services (Phase 1), a Contract for a Systems Implementation, Integration and Business Process Services Provider (Phase

2) and the hardware and internal resources required to complete the three-year project.

Approval of the LOP Budget, award of the Contract for Phase 1, and Contract Modification Authority will allow Metro to replace the current legacy-based M3 system and provide a scalable technology to support Metro's expanding transit services with the tools needs to comply with MAP 21 State of Good Repair.

BACKGROUND

In November of 2017, the Metro Board of Directors was notified of Metro's assessment of the M3 system and intent to proceed with the procurement of a replacement EAM system. As the software is no longer supported or maintained by the vendor, the current EAM (M3) system is an aging technology application impacting employee productivity, operations, maintenance expenses, and the ability to create data-driven maintenance strategies.

Metro intends to replace the current M3 system with a modern Commercial Off-the-Shelf (COTS) EAMS solution that includes:

- Implementing a new, modern transportation asset management software solution with comprehensive functionality including linear asset management, GIS, and mobility features.
- Implementing updated business processes across all functional areas that, when coupled with the EAMS software, will result in more efficient operations (i.e., improved productivity) and more effective asset management while enhancing data quality using industry-accepted asset classification schemes and hierarchy structures; refinement of location hierarchy and location codes; including asset condition scoring readily accessible by management for improved decision making and regulatory reporting.

DISCUSSION

Staff is requesting approval for a LOP of \$45,800,000 be established to replace the current M3 System and implement business process improvement relating to the new system. The LOP will include the contract for software and services (Contract No. PS51755000), internal labor, hardware needed to support the system and contracting with a Business Systems Implementation and Integration Service provider to determine and implement a comprehensive EAMS solution using the selected EAMS software and to develop and prepare improved standard operational processes based on industry best practices.

The Phase 1 Contractor's primary focus is to deliver and install the proposed core EAMS software and provide support for the software during the contracted term which will cover some or all of the overall EAM Program timeline. Per Metro's requirements, the Contractor will provide (a) software acquisition/licensing, (b) software technical support, (c) development, testing and documentation for interfaces between core EAMS software and the proposed third party software (TPS), (d) technical training aids/documentation to be included in the conduct of training sessions, and (e) development, testing and documentation for selected custom functionality (by Metro Task Order, if applicable).

DETERMINATION OF SAFETY IMPACT

The approval of this capital project and contract award will have a direct and positive impact to safety, service quality, system reliability, performance, and overall customer satisfaction.

FINANCIAL IMPACT

Adoption of Recommendation will establish an LOP budget of \$45.8 million for this project in Cost Center 9210 - Information Management, Capital Project 207155 - Enterprise Asset Management System Replacement (EAMS Project).

The \$4,200,000 for EAM Software Acquisition and Software Support Services is included in the FY20 budget under several accounts in Cost Center 9210 in Project 207155 - Enterprise Asset Management System Replacement (EAMS Project).

Since this is a multi-year contract, the project manager and cost center manager will be accountable for budgeting the cost in future fiscal years.

Impact to Budget

The initial source of funds for Capital Project 207155 Enterprise Asset Management System is TDA-4 for which is a State Funding Source.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports strategic plan goal #1) to provide high-quality mobility options that enable people to spend less time traveling and #5) to provide responsive, accountable and trustworthy governance within the Metro organization.

ALTERNATIVES CONSIDERED

The alternative is not to approve the LOP or award the Contract for the EAMS System risking our ability to meet Federal MAP 21 State of Good Repair requirements and resulting in the continued use of the M3 software which is not supported and does not optimize maintenance and operational activities.

NEXT STEPS

Upon approval by the Board, Staff will execute Contract No. PS51755000 with 21Tech LLC for the EAMS Software Acquisition and Software Support Services and will release a Request for Proposals (RFP) for Phase 2 of the EAM Project for the System Implementation, Integration and Business Process Services.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Capital Project 207155

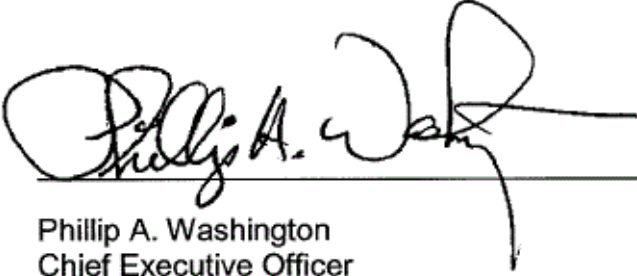
Prepared by: Amy Romero, Sr. Director of Central Maintenance, (213) 922-5709

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108

Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051

Bryan Sastokas, Chief Information Technology Officer, (213) 922-5510

Vijay Khawani, Chief Risk, Safety and Asset Management Officer (Interim), (213) 922-4035



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**ENTERPRISE ASSET MANAGEMENT SYSTEM
SOFTWARE ACQUISITION AND SOFTWARE SUPPORT
SERVICES/PS51755000**

1.	Contract Number: PS51755000	
2.	Recommended Vendor: 21Tech LLC	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: August 23, 2018	
	B. Advertised/Publicized: August 23, 2018	
	C. Pre-Proposal Conference: September 5, 2018	
	D. Proposals Due: November 1, 2018	
	E. Pre-Qualification Completed: March 29, 2019	
	F. Conflict of Interest Form Submitted to Ethics: November 7, 2018	
	G. Protest Period End Date: July 22, 2019	
5.	Solicitations Picked up/Downloaded: 127	Bids/Proposals Received: 7
6.	Contract Administrator: Ana Rodriguez and Manchi Yi	Telephone Number: (213) 922-1076
7.	Project Manager: Amy Romero	Telephone Number: (213) 922-5709

A. Procurement Background

This Board Action is to approve Contract No. PS51755000 to 21Tech LLC to provide a Commercial Off-the-Shelf (COTS) Enterprise Asset Management System (EAMS) software solution. Board approval of contract award is subject to the resolution of any properly submitted protest.

Request for Proposals (RFP) No. PS51755 was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

Six amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1 was issued on August 30, 2018 to provide proposers an option to participate in the pre-proposal conference via conference call;
- Amendment No. 2 was issued on September 6, 2018 to extend the proposal due date to October 25, 2018;
- Amendment No. 3 was issued on September 21, 2018 to provide answers to formally submitted questions;
- Amendment No. 4 was issued on October 3, 2018 to provide Attachment D (report samples) in a zip file.
- Amendment No. 5 was issued on October 9, 2018 to provide Attachment C (report samples) in a different file format.
- Amendment No. 6 was issued on October 19, 2018 to extend the proposal due date to November 1, 2018.

A pre-proposal conference was held on September 5, 2018 and was attended by 41 participants representing 27 firms. There were 210 questions submitted and responses were released prior to the proposal due date.

A total of 127 firms downloaded the RFP and were included on the plan holders list. A total of seven proposals were received by the due date of November 1, 2018.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro's Operations Department, Information and Technology Services Department, Vendor/Contract Management Department, Asset Management Department and Accounting Department was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on a three-step evaluation criteria as outlined in the RFP. In order to be considered technically qualified to perform the services, the Proposers had to meet the Minimum Requirements on a pass/fail basis. The pass/fail requirements were that the Proposer had to demonstrate that they had implemented an Enterprise Asset Management (EAM) solution at one of the 25 largest public transit authorities with bus and rail operations or an international public transit agency of similar size. In Step 2 and Step 3, the proposals were evaluated based on the criteria outlined in the RFP and were worth a total of 150 points combined. The amount of points for each criteria are listed below and have been converted to percentages.

Step 1: Minimum Requirements	Pass/Fail
Step 2: Evaluation Criteria (100 points)	66.67 percent
•Ability to Meet Software Requirements (45 points)	30.00 percent
•Project Management Plan and Timeline (15 points)	10.00 percent
•Proposer Qualification and Reference Checks (15 points)	10.00 percent
•Technical Proposal Cost and Total Cost of Ownership (25 points)	16.67 percent
Step 3: Demonstrations (50 points)	33.33 percent
Total (150 points)	100 percent

Several factors were considered when developing the evaluation criteria for this solicitation, giving the greatest importance to Step 2 which awarded the most points based on the Proposer's demonstrated ability to meet Metro's technical requirements for the system.

The PET began its independent evaluation of the proposals on November 6, 2019. Of the seven proposals received, three proposals were determined not to meet the minimum pass/fail requirements and were eliminated from further consideration. The remaining four firms' proposals were then evaluated based on the Step 2 evaluation criteria. All four remaining firms were determined to be within the competitive range and were invited to participate in the Step 3, Demonstrations, evaluation phase. The firms that were in the competitive range are listed below in alphabetical order:

- 21 Tech LLC
- Interloc Solutions, Inc.
- International Business Machines Corp.
- Trapeze Software Group Inc.

Demonstration scripts were provided to each firm approximately three weeks prior to their scheduled demonstration date. Firms were required to demonstrate how their proposed core EAMS software's functionality met Metro's requirements. The demonstrations began on January 14, 2019 and concluded on February 7, 2019.

The PET finalized their scores in February of 2019. The final scoring determined 21Tech LLC to be the highest ranked firm and Metro engaged in further technical discussions and negotiations from March 2019 through June 2019.

Qualifications Summary of Firms within the Competitive Range:

21 Tech LLC (21Tech)

21Tech is a California based firm that specializes in public sector EAM software deployments and integrations. The core software solution proposed is Infor EAM. 21Tech's experience with the Infor EAM product includes work for clients such as the San Francisco Municipal Transportation Agency, the San Francisco Department of Public Works, the Kansas City Transit Authority, the San Antonio VIA, the Toronto Metrolinx, and the Quebec RTC. For this project, 21Tech assembled a team of subcontractors that included Infor Public Sector, Inc., Bentley Systems, Inc., Accenture LLP, Knowledge Architects LLC, and Cognetic Technologies.

Trapeze Software Group, Inc. (Trapeze)

Trapeze is headquartered in Canada and is dedicated to public transit software solutions. With over 1,600 implementations across 15 countries worldwide, their clients include the Chicago Transit Authority, the Regional Transit District of Denver, and the Metropolitan Atlanta Rapid Transit Authority.

International Business Machines Corporation (IBM)

IBM is a globally integrated company based in New York that has been in business for over 100 years. Their proposed software solution, Maximo, is currently in production in agencies such as Amtrak, the Washington Metropolitan Area Transit Authority, and the San Francisco Bay Area Rapid Transit.

Interloc Solutions, Inc. (Interloc)

Interloc Solutions is based in Folsom, California and has been in business for approximately 14 years. As an IBM Gold Partner, Interloc focuses their work on the IBM Maximo product. Interloc has provided services to agencies such as Amtrak, BART, and most-recently, the Dallas Area Rapid Transit.

The following table summarizes the PET's ranking and scores.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	21 Tech LLC -Hybrid *				
3	Ability to Meet Software Requirements	92.78	30.00%	27.83	
4	Project Management Plan and Timeline	91.00	10.00%	9.10	
5	Proposer Qualification and Reference Checks	84.33	10.00%	8.43	
6	Technical Proposal Cost and Total Cost of Ownership	73.08	16.67%	12.18	
7	Demonstration Score	70.66	33.33%	23.55	
8	Total		100.00%	81.09	1
9	21 Tech LLC -Cloud *				
10	Ability to Meet Software Requirements	92.78	30.00%	27.83	
11	Project Management Plan and Timeline	91.00	10.00%	9.10	
12	Proposer Qualification and Reference Checks	84.33	10.00%	8.43	
13	Technical Proposal Cost and Total Cost of Ownership	55.61	16.67%	9.27	
14	Demonstration Score	71.08	33.33%	23.69	
15	Total		100.00%	78.32	2
16	Trapeze Software Group - Cloud				
17	Ability to Meet Software Requirements	87.60	30.00%	26.28	
18	Project Management Plan and Timeline	82.00	10.00%	8.20	
19	Proposer Qualification and Reference Checks	85.33	10.00%	8.53	
20	Technical Proposal Cost and Total Cost of Ownership	41.46	16.67%	6.91	
21	Demonstration Score	48.54	33.33%	16.18	
22	Total		100.00%	66.10	3
23	IBM -Cloud *				
24	Ability to Meet Software Requirements	86.59	30.00%	25.98	
25	Project Management Plan and Timeline	40.53	10.00%	4.05	
26	Proposer Qualification and Reference Checks	44.00	10.00%	4.40	
27	Technical Proposal Cost and Total Cost of Ownership	83.91	16.67%	13.99	
28	Demonstration Score	41.16	33.33%	13.72	
29	Total		100.00%	62.14	4
30	IBM -On Prem *				
31	Ability to Meet Software Requirements	86.59	30.00%	25.98	
32	Project Management Plan and Timeline	40.53	10.00%	4.05	
33	Proposer Qualification and Reference Checks	44.00	10.00%	4.40	
34	Technical Proposal Cost and Total Cost of Ownership	60.13	16.67%	10.02	
35	Demonstration Score	41.16	33.33%	13.72	
36	Total		100.00%	58.17	5

37	Interloc Solution, Inc. –Cloud				
38	Ability to Meet Software Requirements	79.14	30.00%	23.74	
39	Project Management Plan and Timeline	46.00	10.00%	4.60	
40	Proposer Qualification and Reference Checks	46.27	10.00%	4.63	
41	Technical Proposal Cost and Total Cost of Ownership	43.03	16.67%	7.17	
42	Demonstration Score	50.10	33.33%	16.70	
43	Total		100.00%	56.84	6

*Firm provided separate proposals for different deployment solutions

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon an independent cost estimate, adequate price competition, cost analysis, technical evaluation, fact finding, clarifications and negotiations.

The negotiated amount of the Contract is reflective of Metro's discussions with the Proposer. The original Statement of Work requested that the proposers provide license pricing for a limited number of users and provide options and recommendations on when would be the best time to implement enterprise-wide licensing, if that was an option. During discussions, Metro determined that it would be in its best interest to secure enterprise-wide licensing for the core EAM software. The negotiated amount reflects the additional amount for the enterprise-wide licenses.

	Proposer Name	Proposal Amount	Metro ICE	Negotiated Amount
1.	21 Tech LLC –Hybrid *	\$8,983,563	\$10,498,000	\$10,205,207
2.	21 Tech LLC –Cloud *	\$9,051,423		
3.	Trapeze Software Group –Cloud	\$13,530,151		
4.	IBM –Cloud *	\$5,627,000		
5.	IBM –On-Prem *	\$11,041,000		
6.	Interloc Solutions, Inc. –Cloud	\$12,394,000		

*Firm provided separate proposals for different deployment solutions

D. Background on Recommended Contractor

The recommended firm, 21Tech LLC is located in Los Altos, California and has been in business for 22 years. 21Tech is a premier Infor EAM Transit certified partner and has completed large-scale Infor EAM implementations and upgrades across the country. 21Tech's proposed solution of the core Infor EAM system, supplemented by Bentley's AssetWise suite of products, demonstrated the functionality that Metro requires across the Agency.

DEOD SUMMARY

ENTERPRISE ASSET MANAGEMENT SYSTEM
SOFTWARE ACQUISITION AND SOFTWARE SUPPORT SERVICES/PS51755000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 10% Small Business Enterprise (SBE)/Disabled Veterans Business Enterprise (DVBE) goal for this solicitation. 21 Tech, LLC exceeded the goals with a 24.59% SBE commitment and a 3.11% DVBE commitment.

Small Business Goal	7% SBE 3% DVBE	Small Business Commitment	24.59% SBE 3.11% DVBE
----------------------------	---------------------------	----------------------------------	----------------------------------

SBE Subcontractors		% Committed
1.	Knowledge Architect, LLC	24.59%
Total SBE Commitment		24.59%

DVBE Subcontractors		% Committed
1.	Cognetic Technologies	3.11%
Total DVBE Commitment		3.11%

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.

ATTACHMENT C- CAPITAL PROJECT 207155- LOP REQUEST

Use of Funds	FY19	FY20	FY21	FY22	FY23	Total
COMPUTER SUPPLIES		\$600,000	\$600,000	\$100,000		\$1,300,000
SOFTWARE		\$1,000,000	\$1,100,000	\$1,100,000		\$3,200,000
SERV PROF AND TECH SERVICE	\$1,400,000	\$4,735,750	\$17,595,532	\$10,495,284	\$1,894,813	\$36,121,379
LABOR COSTS	\$600,000	\$964,250	\$1,177,468	\$1,203,716	\$1,233,187	\$5,178,621
Total	\$2,000,000	\$7,300,000	\$20,473,000	\$12,899,000	\$3,128,000	\$45,800,000



Board Report

File #: 2019-0481, File Type: Informational Report

Agenda Number: 26.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
EXECUTIVE MANAGEMENT COMMITTEE
JULY 18, 2019**

**SUBJECT: OFFICE OF THE INSPECTOR GENERAL REPORT ON METRO SECURITY
PERFORMANCE REVIEW FISCAL YEAR 2018**

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE OIG report on Metro Security Performance Review Fiscal Year 2018.

ISSUE

On February 23, 2017, the Metro Board passed a motion directing that the Inspector General conduct an annual audit of each law enforcement services contract to determine how key performance indicators are measuring up against actual performance metrics. The audit is to ensure that Metro is receiving the services it is paying for.

BACKGROUND

In 2017, LACMTA (Metro) awarded three separate 5-year firm fixed unit rate contracts to the Los Angeles Police Department (LAPD), the Los Angeles County Sheriff's Department (LASD), and the Long Beach Police Department (LBPD) for transit law enforcement services to support day-to-day operations across Metro's entire service area. Metro also directly employs transit security officers who perform fare checks and bus/rail patrolling.

DISCUSSION

A. Trends in Crime, Perceptions of Safety, and Safety and Security Complaints

There are three key outcome measures that can be used to evaluate the effectiveness and trends of Metro's safety and security approach and program. These are the level of reported crime on the system, the perceptions of safety by users of the system, and the number of safety and security complaints made by users of the system.

Reported Crime

Total reported Violent Crime on the Metro System decreased by 18% between FY 2015 and FY 2018,

with most of this decrease (14%), occurring between FY 2017 and FY 2018. Total reported Property Crime on the Metro System decreased 15% between FY 2015 and FY 2018, with a decrease of 16% occurring between FY 2015 and FY 2017, and an increase of 1% occurring between FY 2017 and FY 2018.

Obtaining complete and accurate reporting of crime that occurs on the Metro System continues to be challenging. This is partially due to the fact that the Metro System operates within multiple jurisdictions with their own law enforcement agencies who respond to, handle, and report crime that may not be reported to Metro.

In addition, in the LAPD service area of the Metro System, LAPD neighborhood patrol units respond to and handle many crimes that occur within the Metro System. An unknown number of these crimes are not reported to the LAPD Transit Policing Division and so are not tracked and reported to Metro.

We recommend the Metro System Security and Law Enforcement (SSLE) Department continue to work with contract law enforcement agencies to improve the complete and accurate reporting of crime that occurs on the Metro System.

Rider Perceptions of Safety

Perception of crime and disorder on the Metro System creates a risk to the confidence in safety held by passengers and Metro employees and poses a risk to the reputation of Metro as a safe and secure system. Passengers who perceive the system to be unsafe will not use the service, and therefore reduce the number of people using transit and Metro's ridership.

Based on Metro rider surveys conducted annually, rider perceptions of safety on the Metro Train system declined slightly and rider perceptions of safety on the Metro Bus system improved slightly between FY 2015 and FY 2018. These changes in perceptions of safety are small and within the margin of error for the survey. However, it is important to continue to monitor rider perceptions of safety on the Metro System and to develop strategies to address concerns and improve that perception.

Complaints Regarding Safety and Security

Another important indicator of the public or riders' perception of the safety of the Metro System is the number of complaints received regarding safety and security. During the period from FYs 2015 to 2018, rider complaints for the bus system regarding passenger safety or conduct issues were not among the top ten complaints. However, for the rail system, rider complaints regarding passenger safety or conduct issues were the second most common complaint of the top ten complaints for FYs 2015 to 2017. For FY 2018, complaints regarding passenger safety or conduct issues dropped to five of the top ten.

We recommend the SSLE Department continue to monitor rider survey results regarding perceptions of safety of riders on the Metro System and complaints regarding safety and passenger conduct issues and develop strategies to improve those perceptions and reduce complaints.

B. Resource Monitoring and Oversight

The SSLE Department is charged with ongoing oversight of the contracted law enforcement services as well as the operations of Metro Security.

Audits of Contracted Law Enforcement Personnel Presence

Metro has and will continue to have a substantial investment in resources devoted to system safety and security. Ensuring that these resources are effectively and efficiently used is very important.

Oversight and monitoring of contracted law enforcement resources has been problematic. Metro has had some difficulty in ensuring that law enforcement personnel assigned to Metro are actually present and performing as assigned. Historically, Metro has not had an effective means of verifying the accuracy of staffing information provided by contract law enforcement, or of verifying that personnel charging time on the Metro contract are actually present and providing the contracted services.

Beginning with FY 2018, the SSLE Department implemented regular “audits” of law enforcement personnel to monitor consistency between personnel time reported and the invoiced costs. Beginning in September 2017, Metro also began conducting “field audits” of law enforcement personnel in addition to the comparison audits of information provided by contracted law enforcement agencies. These field audits involve taking the roster of law enforcement personnel assigned to work and verifying that those personnel are actually in the field and providing the contracted service. These field audits strengthen Metro’s contract oversight and monitoring.

GPS Based Contracted Law Enforcement Oversight and Monitoring

The SSLE Department has been working to develop and implement an effective method of tracking and monitoring the activities of safety and security resources deployed on the Metro System using the GPS function on smartphones used by Metro safety and security personnel.

The Mobile Phone Validators (MPV) provided to contracted law enforcement officers are now GPS enabled and are able to provide information on the location and movement of the MPV and law enforcement resources. Metro has not yet begun using the GPS function and information generated to track or monitor the activities of contracted law enforcement resources.

We recommend the SSLE Department should work to develop a more macro approach to oversight and monitoring of contracted law enforcement resources using the GPS function of the MPV assigned to contracted law enforcement personnel and the data generated from them.

Oversight of Other Law Enforcement Contract Requirements

In our review of compliance with the contract terms, we found some instances of non-compliance by all three law enforcement agencies with qualifications and training of personnel assigned, reports and information being provided to Metro, equipment provided under the contract, and appropriate support for invoices submitted. Increased monitoring and oversight of these requirements seems warranted given the size of the contracts and the importance of the services being provided.

We recommend the SSLE Department should consider expanding monitoring and oversight of other contract requirements including qualifications and training of personnel, required reporting, equipment provided, and invoice support and compliance with the contract. We also recommend

Metro seek reimbursement for overbillings and overpayments resulting from noncompliance with contract terms during FY 2018.

C. Key Performance Indicators (KPI)

It is essential that Metro clearly define performance expectations for each of the contract law enforcement agencies and use meaningful performance indicators to evaluate how well these expectations are being met.

Reporting of Crime and Incident Response Time Indicators

Two of the KPI included in each of the law enforcement contracts were intended to provide information on the outcomes of the law enforcement service provided including changes in the number of crimes reported and increases in crime incident response times.

In crime reporting the emphasis should be on violent crime, which is obviously the most impactful to the Metro System and has the greatest impact on Metro's riders. Reporting all crime in the aggregate is less meaningful because violent crimes such as homicide, robbery and rape are given the same weight as lesser crimes such as larceny, petty theft, and vandalism.

A primary workload for law enforcement is responding to and handling incidents that occur on the Metro System or calls for service. Metro's SSLE Department currently only collects and reports response time information for emergency calls for service. While emergency calls for service are obviously the most important calls, tracking and reporting response time on less urgent incidents and calls for service is also important.

Often these lower priority calls for service involve quality of life issues and concerns as well as victims of property crimes. A slow response to these incidents can have a negative impact on the perception of the riding public transit that the system is safe and well protected. In addition, not requiring contract law enforcement agencies to track and report these response times communicates to them and their officers that these calls are not important.

We recommend that Metro's SSLE Department begin to collect and report on response times for all calls for service that require a law enforcement response.

Visibility of Law Enforcement Security Personnel Indicators

Providing a visible security presence within the Metro System is an important strategy for providing both a sense and reality of safety. Three of the KPI included in each of the law enforcement contracts were intended to provide information on the visibility of law enforcement security personnel on the Metro System. These are 1) the ratio of proactive versus dispatched activity, 2) the number of foot and vehicle patrols of bus stops, transit centers, train platforms, plazas, and stations, and 3) the number of bus and train boardings.

Contract law enforcement agencies were only able to report on the ratio of proactive versus dispatched activity. Contract law enforcement agencies were not able to report on the other two KPI. While these are important indicators and would provide useful information on the level of activity and visibility of contracted law enforcement personnel, it was not practical for the law enforcement

agencies to reliably collect meaningful information for these indicators. As discussed in Section B of this report, using the GPS function and the data generated could provide more reliable and meaningful information on the amount of time contracted law enforcement officers spend on each of these activities related to KPI 2 and 3 above.

Law Enforcement Personnel Presence Indicator

One of the KPI included in each of the law enforcement contracts was intended to provide information on the presence of the contracted law enforcement personnel. This is the ratio of staffing levels and vacant assignments. This indicator is important in both communicating to the contract law enforcement agencies the need to actually staff contracted assignments and to report how effectively these positions are actually being staffed. Reported staffing levels collectively were at 98.5% or above during FY 2018.

Baseline Expectations and Other Potential Performance Indicators

It is important to establish baseline expectations or targets for each performance indicator. This not only clearly communicates performance expectations, but it also can help drive improvements in performance through the development and implementation of new strategies. Baseline performance levels for each KPI have not been developed.

We recommend Metro's SSLE Department work with contract law enforcement agencies to establish baseline or target performance levels for each of the KPI currently in use. They should also work together to determine if additional KPI would be appropriate and meaningful.

D. Community Policing

Community policing within a transit system should place an emphasis on quality of life issues. The customers of the Metro System must feel safe and secure. The presence of security, in whatever form, must have a "felt presence;" that is, they must be visible and engaged without becoming oppressive and threatening.

Metro Community Policing Plan

The Metro SSLE Department is in the process of developing a community policing plan for the Metro System. The Metro Community Policing Plan will be a unified plan instead of having each of the three law enforcement agencies develop individual community policing plans. The Metro Community Policing Plan is part of Metro's new Equity Platform, which aims to assure equity across all programs impacting transit service, planning, and policing. The SSLE Department expects to have a draft Metro Community Policing Plan completed by the Fall of 2019.

We recommend the Metro SSLE Department continue to develop the Metro Community Policing Plan and ensure it includes specific training in Problem Oriented Policing for law enforcement personnel, attendance by law enforcement personnel at community meetings, and protocols to obtain feedback from bus and rail managers.

Law Enforcement Service Request (LESR) System

Metro employees, including bus and train operators, maintenance personnel, customer service

representatives, and others are the front-line representatives of Metro and have ongoing and direct interaction with the riding public. The LESR system implemented in FY 2018 should provide good information on Metro employee safety and security issues and concerns on the system going forward.

During FY 2018, a total of 935 law enforcement service requests were generated by Metro employees. Our review of the requests and responses indicate that law enforcement agencies are using the LESR to identify and resolve issues and concerns.

E. Compliance with Specific Contract Requirements

The contracts with the three law enforcement agencies each contain specific requirements related to personnel and training, billing, required reports, and other contractual requirements.

Overview of Law Enforcement Contract Requirements

Each of the contracts with the three law enforcement agencies includes specific contract requirements. This includes requirements for the experience and training of law enforcement personnel assigned to Metro, billing information and supporting documentation, required information and reports on activities, and other information on equipment provided.

Los Angeles Police Department (LAPD) Contract Compliance

The following are the results of our review of LAPD's contract compliance:

- LAPD was not in compliance with two of the contract requirements related to personnel and training.
- The total amount billed and paid to LAPD for FY 2018 did not exceed the estimated cost specified in the contract for Year 1.
- Invoices submitted to Metro were based on actual services provided and supported by daily summary of assignments and hours worked using the cost data from the payroll system. However, actual payroll records were not submitted with the invoices as required.
- For overtime charges, we were unable to determine whether the billing rates exceeded the approved maximum fully burdened hourly rates because the list of maximum fully burdened hourly rates that LAPD submitted to Metro was not in compliance with the contract.
- Eight labor classifications totaling \$281,400.77 were not found in the required list of maximum fully burdened hourly rates.
- For straight time charges, we identified a total amount of \$3,874.99 as overbilled by LAPD and overpaid by Metro.
- LAPD invoiced an overhead rate of 12.76% for overtime hours that was unsupported by

adequate documentation.

- LAPD met 8 out of 9 contract requirements for submitting required reports to Metro. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. However, no information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted on time in accordance with the contract.
- Exhibit E of the contract provides a list of equipment that the LAPD was supposed to provide under the contract. We found that LAPD did not provide the equipment in the quantities listed in Exhibit E.

Los Angeles County Sheriff's Department (LASD) Contract Compliance

- LASD was not in compliance with two of the contract requirements related to personnel and training.
- The total amount billed and paid for FY 2018 to LASD did not exceed the estimated cost specified in the contract for Year 1.
- Except for a credit amount understatement of \$1,699.68, the billing rates were consistent with Metro's approved rates. Invoices were based on actual services provided and supported by Payment Certification, the Service Level and Billing Status Report, and the Patrol Compliance Report.
- LASD met 7 out of 8 contract requirements for required reports. The reports were submitted in a timely manner, with adequate information and in a format that allows Metro to determine the calculation of the reported figures.

Long Beach Police Department (LBPD) Contract Compliance

- LBPD was not in compliance with the contract requirement for Transit Policing training.
- The total amount billed and paid for FY2018 exceeded the estimated cost specified in the contract for Year 1 by \$885,578.
- Daily summary of assignments for all hours worked and payroll records were not submitted with the invoices.
- The billing rates exceeded Metro's approved maximum fully burdened hourly rates for three labor categories. Only one of the three labor categories was listed in the approved maximum fully burdened hourly rates. We identified a total amount of \$14,643.89 as overbilled by LBPD

and overpaid by Metro.

- The billing methodology for equipment cost was not consistent with the contract agreement.
- LBPD met 8 out of 9 contract requirements for required reports. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. No information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted to Metro on time.

F. Fare and Code of Conduct Compliance Enforcement

Enforcing fare compliance on the Metro System as well as the Metro Customer Code of Conduct is a key element of Metro's safety and security mission.

Code of Conduct and Parking Enforcement and Citations

The vast majority (98%) of the citations for Metro Code of Conduct violations are issued by Metro Security. This demonstrates the substantial change in the transfer in responsibility for fare and code of conduct enforcement from contracted law enforcement to Metro Security. The number of Code of Conduct citations issued increased substantially (162%) between FY 2017 and FY 2018. Total citations are 35% below the level for FY 2013.

Performance Indicators for Metro Security

The role and responsibilities of Metro Security have expanded substantially over the past few years and now includes primary responsibility for enforcing Metro's Code of Conduct on the system, including fare enforcement. Given this, it is important that Metro Security have an effective accountability system, including meaningful performance indicators.

The SSLE Department reports they will be developing KPIs for Metro Security during 2019. These KPIs will cover two key areas: Fare Enforcement and Critical Infrastructure Protection. The fare enforcement KPI will focus on effective strategies to increase fare compliance. The critical infrastructure KPI will focus on assessing and mitigating security threats to the transit system and its critical structures.

FINANCIAL IMPACT

Adoption of the recommendations in this report does not increase the financial impact on the agency.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendations in this report support Strategic Plan Goal 2.1 (Improving security), Goal 5.6 (fostering and maintaining a strong safety culture), and Goal 2 (delivering outstanding trip experiences).

NEXT STEPS

Metro management should:

- Complete the Schedule for Tracking Metro's Proposed Actions in response to the recommendations provided in Appendix B of the report as determinations are made on implementing the recommendations; and
- Periodically report to the Metro Board on the status of actions taken to implement the recommendations.


ATTACHMENTS

Attachment A - Metro Security Performance Review Fiscal Year 2018

Prepared by: Myra Taylor, Senior Auditor, (213) 244-7306

Yvonne Zheng, Senior Manager, Audit, (213) 244-7301

Reviewed by: Karen Gorman, Inspector General, (213) 922-2975



Karen Gorman
Inspector General

**Los Angeles County
Metropolitan Transportation Authority
Office of the Inspector General**

**Metro Security
Performance Review
Fiscal Year 2018**

Report No. 19-AUD-10

June 24, 2019





Metro

**Los Angeles County
Metropolitan Transportation Authority**

Office of the Inspector General
818 West 7th Street, Suite 500
Los Angeles, CA 90017

213.244.7300 Tel
213.244.7343 Fax

June 24, 2019

Metro Board Members

Re: Report on Metro Security Performance Review Fiscal Year 2018

Dear Metro Board Members:

The Office of the Inspector General (OIG) conducted a security-focused review to determine the level of performance for transit security function services (law enforcement and Metro's Transit Security Officers) during FY 2018. Since 2009, Metro has had a contract with the Los Angeles County Sheriff's Department (LASD) to provide Metro with transit policing services. Beginning July 1, 2017, Metro implemented a new transit security strategy, which includes obtaining services from three law enforcement agencies – the City of Los Angeles Police Department (LAPD), the City of Long Beach Police Department (LBPD), and the Los Angeles County Sheriff's Department (LASD). Metro also directly employs transit security officers and began using Metro security officers for fare checks and bus/rail patrolling.

The Metro Board directed the OIG to perform an annual audit of each law enforcement services contract to determine how key performance indicators are measuring up against metrics and ensure that Metro is receiving the services it is paying for. To accomplish this directive, the OIG prepared a scope of work for the Request for Proposal. BCA Watson Rice WR, LLP, was hired to perform the security performance review for fiscal year 2018, and completed the attached report.

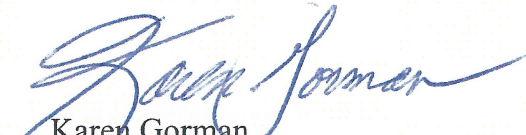
The review identified a number of recommendations for improving transit security performance. The Appendix to the report lists 25 recommendations that will enhance performance efficiency and effectiveness in the following transit security areas:

- Crimes reporting accuracy and completeness
- Report response times for all categories of dispatched incident calls for service
- Oversight and monitoring law enforcement resources
- Review, revise, and adopt key performance indicators (KPI) for law enforcement services including base line target levels of performance for each KPI, and develop KPIs for Metro Transit Security
- Develop a Metro Community Policing Plan
- Monitor each law enforcement services contract to ensure compliance with contract requirements in areas such as:
 - Meeting required personnel certifications and completing required training
 - Monitoring billings and submission of payroll records and other required supporting documentation
 - Providing maximum hourly rates for each labor classification
 - Submitting required reports in a timely manner

- Providing the equipment in the quantities required by the contract
- Returning to Metro overbilled and overpaid amounts (LAPD \$3,874.99) and (LBPD \$164,643.89), and issuing an additional credit amount to Metro (LASD \$1,699.68) because the monthly rate to calculate the original credit did not comply with the contract.

We appreciate the assistance provided by Metro staff during this review. I am available to answer any questions the Board Directors may have regarding this report.

Sincerely,



Karen Gorman
Inspector General



Metro Office of the Inspector General

**Metro Security
Performance Review
Fiscal Year 2018**

June 2019

FINAL REPORT

Submitted by

BCA Watson Rice, LLP



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1. Executive Summary

Background and Objectives

In 2017, Metro awarded three separate 5-year firm fixed unit rate contracts to the Los Angeles Police Department (LAPD), the Los Angeles County Sheriff's Department (LASD), and the Long Beach Police Department (LBPD) ("Contractors") for transit law enforcement services to support day-to-day operations across Metro's entire service area.

On February 23, 2017, the Metro Board passed a motion directing that the Inspector General be tasked with annually auditing each law enforcement services contract to determine how key performance indicators are measuring up against actual performance metrics. The audit is to ensure that Metro is receiving the services it is paying for.

A. Trends in Crime, Perceptions of Safety, and Safety and Security Complaints

There are three key outcome measures that can be used to evaluate the effectiveness and trends of Metro's safety and security approach and program. These are the level of reported crime on the system, the perceptions of safety by users of the system, and the number of safety and security complaints made by users of the system.

Reported Crime

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Obtaining complete and accurate reporting of crime that occurs on the Metro System continues to be challenging. This is partially due to the fact that the Metro System operates within multiple jurisdictions with their own law enforcement agencies who respond to, handle, and report crime that may not be reported to Metro.

In addition, in the LAPD service area of the Metro System, LAPD neighborhood patrol units respond to and handle many crimes that occur within the Metro System. An unknown number of these crimes are not reported to the LAPD Transit Policing Division and so are not tracked and reported to Metro.



We recommend the Metro System Security and Law Enforcement (SSLE) Department continue to work with contract law enforcement agencies to improve the complete and accurate reporting of crime that occurs on the Metro System.

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Another important indicator of the public or riders' perception of the safety of the Metro System is the number of complaints received regarding safety and security. During the period from FYs 2015 to 2018, rider complaints for the bus system regarding passenger safety or conduct issues were not among the top ten complaints. However, for the rail system, rider complaints regarding passenger safety or conduct issues were the second most common complaint of the top ten complaints for FYs 2015 to 2017. For FY 2018, complaints regarding passenger safety or conduct issues dropped to five of the top ten.

We recommend the SSLE Department continue to monitor rider survey results regarding perceptions of safety of riders on the Metro System and complaints regarding safety and passenger conduct issues and develop strategies to improve those perceptions and reduce complaints.

More information on trends in crime, perceptions of safety, and safety and security complaints can be found beginning on page 14 of this report.

B. Resource Monitoring and Oversight

The SSLE Department is charged with ongoing oversight of the contracted law enforcement services as well as the operations of Metro Security.

Audits of Contracted Law Enforcement Personnel Presence

Metro has and will continue to have a substantial investment in resources devoted to



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Oversight and monitoring of contracted law enforcement resources has been problematic. Metro has had some difficulty in ensuring that law enforcement personnel assigned to Metro are actually present and performing as assigned. Historically, Metro has not had an effective means of verifying the accuracy of staffing information provided by contract law enforcement, or of verifying that personnel charging time on the Metro contract are actually present and providing the contracted services.

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warranted given the size of the contracts and the importance of the services being provided.

We recommend the SSLE Department should consider expanding monitoring and oversight of other contract requirements including qualifications and training of personnel, required reporting, equipment provided, and invoice support and compliance with the contract. We also recommend Metro seek reimbursement for overbillings and overpayments resulting from noncompliance with contract terms during FY 2018.

More information on resource monitoring and oversight can be found beginning on page 21 of this report.

C. Key Performance Indicators (KPIs)

It is essential that Metro clearly define performance expectations for each of the contract law enforcement agencies and use meaningful performance indicators to evaluate how well these expectations are being met. The KPIs for each of the three contracted law enforcement agencies are listed in Exhibit 6 on page 25 of this report.

Reporting of Crime and Incident Response Time Indicators

Two of the KPI included in each of the law enforcement contracts were intended to provide information on the outcomes of the law enforcement service provided including changes in the number of crimes reported and increases in crime incident response times.

In crime reporting the emphasis should be on violent crime, which is obviously the most impactful to the Metro System and has the greatest impact on Metro's riders. Reporting all crime in the aggregate is less meaningful because violent crimes such as homicide, robbery and rape are given the same weight as lesser crimes such as larceny, petty theft, and vandalism.

A primary workload for law enforcement is responding to and handling incidents that occur on the Metro System or calls for service. Metro's SSLE Department currently only collects and reports response time information for emergency calls for service. While emergency calls for service are obviously the most important calls, tracking and reporting response time on less urgent incidents and calls for service is also important.

Often these lower priority calls for service involve quality of life issues and concerns as well as victims of property crimes. A slow response to these incidents can have a negative impact on the perception of the riding public transit that the system is safe and well protected. In addition, not requiring contract law enforcement agencies to track and report these response times communicates to them and their officers that these calls are not important.



We recommend that Metro's SSLE Department begin to collect and report on response times for all calls for service that require a law enforcement response.

Visibility of Law Enforcement Security Personnel Indicators

Providing a visible security presence within the Metro System is an important strategy for providing both a sense and reality of safety. Three of the KPI included in each of the law enforcement contracts were intended to provide information on the visibility of law enforcement security personnel on the Metro System. These are 1) the ratio of proactive versus dispatched activity, 2) the number of foot and vehicle patrols of bus stops, transit centers, train platforms, plazas, and stations, and 3) the number of bus and train boardings.

Contract law enforcement agencies were only able to report on the ratio of proactive versus dispatched activity. Contract law enforcement agencies were not able to report on the other two KPI. While these are important indicators and would provide useful information on the level of activity and visibility of contracted law enforcement personnel, it was not practical for the law enforcement agencies to reliably collect meaningful information for these indicators. As discussed in Section B of this report, using the GPS function and the data generated could provide more reliable and meaningful information on the amount of time contracted law enforcement officers spend on each of these activities related to KPI 2 and 3 above.

Law Enforcement Personnel Presence Indicator

One of the KPI included in each of the law enforcement contracts was intended to provide information on the presence of the contracted law enforcement personnel. This is the ratio of staffing levels and vacant assignments. This indicator is important in both communicating to the contract law enforcement agencies the need to actually staff contracted assignments and to report how effectively these positions are actually being staffed. Reported staffing levels collectively were at 98.5% or above during FY 2018.

Baseline Expectations and Other Potential Performance Indicators

It is important to establish baseline expectations or targets for each performance indicator. This not only clearly communicates performance expectations, but it also can help drive improvements in performance through the development and implementation of new strategies. Baseline performance levels for each KPI have not been developed.

We recommend Metro's SSLE Department work with contract law enforcement agencies to establish baseline or target performance levels for each of the KPI currently in use. They should also work together to determine if additional KPI would be appropriate and meaningful.



More information on KPI can be found beginning on page 25 of this report.

D. Community Policing

Community policing within a transit system should place an emphasis on quality of life issues. The customers of the Metro System must feel safe and secure. The presence of security, in whatever form, must have a “felt presence;” that is, they must be visible and engaged without becoming oppressive and threatening.

Metro Community Policing Plan

The Metro SSLE Department is in the process of developing a community policing plan for the Metro System. The Metro Community Policing plan will be a unified plan instead of having each of the three law enforcement agencies develop individual community policing plans. The Metro Community Policing plan is part of Metro’s new Equity Platform, which aims to assure equity across all programs impacting transit service, planning, and policing. The SSLE Department expects to have a draft Metro Community Policing Plan completed by the Fall of 2019.

We recommend the Metro SSLE Department continue to develop the Metro Community Policing plan and ensure it includes specific training in Problem Oriented Policing for law enforcement personnel, attendance by law enforcement personnel at community meetings, and protocols to obtain feedback from bus and rail managers.

More information on Community Policing can be found beginning on page 37 of this report.

Law Enforcement Service Request (LESR) System

Metro employees, including bus and train operators, maintenance personnel, customer service representatives, and others are the front-line representatives of Metro and have ongoing and direct interaction with the riding public. LESR system implemented in FY 2018 should provide good information on Metro employee safety and security issues and concerns on the system going forward.

During FY 2018, a total of 935 law enforcement service requests were generated by Metro employees. Our review of the requests and responses indicate that law enforcement agencies are using the LESR to identify and resolve issues and concerns.

E. Compliance with Specific Contract Requirements

The contracts with the three law enforcement agencies each contain specific requirements related to personnel and training, billing, required reports, and other contractual requirements.



Overview of Law Enforcement Contract Requirements

Each of the contracts with the three law enforcement agencies includes specific contract requirements. This includes requirements for the experience and training of law enforcement personnel assigned to Metro, billing information and supporting documentation, required information and reports on activities, and other information on equipment provided.

Los Angeles Police Department (LAPD) Contract Compliance

The following are the results of our review of LAPD's contract compliance:

- LAPD was not in compliance with two of the contract requirements related to personnel and training.
- The total amount billed and paid to LAPD for FY 2018 did not exceed the estimated cost specified in the contract for Year 1.
- Invoices submitted to Metro were based on actual services provided and supported by daily summary of assignments and hours worked using the cost data from the payroll system. However, actual payroll records were not submitted with the invoices as required.
- For overtime charges, we were unable to determine whether the billing rates exceeded the approved maximum fully burdened hourly rates because the list of maximum fully burdened hourly rates that LAPD submitted to Metro was not in compliance with the contract.
- Eight labor classifications totaling \$281,400.77 were not found in the required list of maximum fully burdened hourly rates.
- For straight time charges, we identified a total amount of \$3,874.99 as overbilled by LAPD and overpaid by Metro.
- LAPD invoiced an overhead rate of 12.76% for overtime hours that was unsupported by adequate documentation.
- LAPD met 8 out of 9 contract requirements for submitting required reports to Metro. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. However, no information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted on time in accordance with the contract.
- Exhibit E of the contract provides a list of equipment that the LAPD was supposed to provide under the contract. We found that LAPD did not provide the equipment



in the quantities listed in Exhibit E.

More information on LAPD's contract compliance can be found beginning on page 49 of this report.

Los Angeles County Sheriff's Department (LASD) Contract Compliance

- LASD was not in compliance with two of the contract requirements related to personnel and training.
- The total amount billed and paid for FY 2018 to LASD did not exceed the estimated cost specified in the contract for Year 1.
- Except for a credit amount understatement of \$1,699.68, the billing rates were consistent with Metro's approved rates. Invoices were based on actual services provided and supported by Payment Certification, the Service Level and Billing Status Report, and the Patrol Compliance Report.
- LASD met 7 out of 8 contract requirements for required reports. The reports were submitted in a timely manner, with adequate information and in a format that allows Metro to determine the calculation of the reported figures.

More information on LASD's contract compliance can be found beginning on page 63 of this report.

Long Beach Police Department (LBPD) Contract Compliance

- LBPD was not in compliance with the contract requirement for Transit Policing training.
- The total amount billed and paid for FY 2018 exceeded the estimated cost specified in the contract for Year 1 by \$885,578.
- Daily summary of assignments for all hours worked and payroll records were not submitted with the invoices.
- The billing rates exceeded Metro's approved maximum fully burdened hourly rates for three labor categories. Only one of the three labor categories was listed in the approved maximum fully burdened hourly rates. We identified a total amount of \$14,643.89 as overbilled by LBPD and overpaid by Metro.
- The billing methodology for equipment cost was not consistent with the contract agreement.
- LBPD met 8 out of 9 contract requirements for required reports. The reports were submitted with adequate information and in a format that allows Metro to determine



the calculation of the reported figures. No information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted to Metro on time.

More information on LBPD's contract compliance can be found beginning on page 70 of this report.

F. Fare and Code of Conduct Compliance Enforcement

Enforcing fare compliance on the Metro System as well as the Metro Customer Code of Conduct is a key element of Metro's safety and security mission.

Code of Conduct and Parking Enforcement and Citations

The vast majority (98%) of the citations for Metro Code of Conduct violations are issued by Metro Security. This demonstrates the substantial change in the transfer in responsibility for fare and code of conduct enforcement from contracted law enforcement to Metro Security. The number of Code of Conduct citations issued increased substantially (162%) between FY 2017 and FY 2018. Total citations are 35% below the level for FY 2013.

Performance Indicators for Metro Security

The role and responsibilities of Metro Security have expanded substantially over the past few years and now includes primary responsibility for enforcing Metro's Code of Conduct on the system, including fare enforcement. Given this, it is important that Metro Security have an effective accountability system, including meaningful performance indicators.

The SSLE Department reports they will be developing KPI for Metro Security during 2019. These KPI will cover two key areas: Fare Enforcement and Critical Infrastructure Protection. The fare enforcement KPI will focus on effective strategies to increase fare compliance. The critical infrastructure KPI will focus on assessing and mitigating security threats to the transit system and its critical structures.

More information on fare and code of conduct compliance can be found beginning on page 80 of this report.



2. Background

The Los Angeles County Metropolitan Transportation Authority (Metro) is the region's principal agency for multi-modal transit operations. Metro operates transit service from eleven (11) geographically distinct bus divisions, four light rail lines, and two subway lines. In addition, critical rail infrastructure includes Union Station, 7th Street/Metro Center, and Willowbrook/Rosa Parks Station. Critical bus infrastructure includes the Harbor/Gateway Station and El Monte Transit Center.

In 2017, Metro awarded three separate 5-year firm fixed unit rate contracts to the LAPD, the LASD, and the LBDP ("Contractors") for transit law enforcement services to support day-to-day operations across Metro's entire service area. The objective of this review is to determine and verify the level of performance being reported for transit security function services for LAPD, LASD, LBDP, and Metro's Transit Security Officers during FY 2018 (July 1, 2017 to June 30, 2018).

- LAPD Contract No. PS5862100LAPD24750: On March 1, 2017, Metro entered a 5-year firm fixed unit rate contract with LAPD to provide transit law enforcement services within the specified coverage areas as indicated in Attachments 1 and 2 of the Statement of Work (SOW) in the contract. This contract became effective on March 1, 2017, and ends on June 30, 2022. The total contract amount is not-to-exceed \$369,330,499.
- LASD Contract No. PS5863200LASD24750: On September 1, 2017, Metro entered a 5-year firm fixed unit rate contract with LASD to provide transit law enforcement services within the specified coverage areas as indicated in Attachments 1 and 2 of the SOW in the contract. This contract became effective on September 1, 2017, and ends on June 30, 2022. The total contract amount is not-to-exceed \$246,270,631.
- LBDP Contract No. PS5862300LBDP24750: On March 23, 2017, Metro entered a 5-year firm fixed unit rate contract with LBDP to provide transit law enforcement services within the specified coverage areas as indicated in Attachments 1 and 2 of the SOW in the contract. This contract became effective on March 23, 2017, and ends on June 30, 2022. The total contract amount is not-to-exceed \$30,074,628.

Except for different service coverage areas specified in Attachments 1 and 2 of each contract, the three contracts have the same or similar scope of work including specific responsibilities, training requirements, reporting requirements (including reports and



documents submission), monthly key performance indicators (KPI), and billing requirements. The contracts state that the Contractor is responsible for the following:

- Augment Contractor or regional response to 911 emergency, priority, and routine calls for service;
- Crime analysis and reporting;
- Augment Contractor or regional criminal investigations, accident investigations, and law enforcement response to major incidents;
- Reduce system-wide vulnerability to terrorism;
- Conduct joint anti-terrorism drills, training sessions, and intelligence sharing with other local, state, and federal law enforcement agencies;
- Provide access to K9 explosive detection on an on-call overtime basis;
- Ride Metro buses and trains, patrol bus and rail stations/corridors, and maintain high visibility at key Metro critical infrastructure locations;
- Provide law enforcement presence during periodic fare enforcement and passenger screening operations;
- Remove persons without a valid transit fare from buses, trains, buildings, and stations;
- Conduct mutually agreed upon grade crossing enforcement operations;
- Respond to and resolve incoming calls for service from Metro bus, rail, and security dispatch centers;
- Respond to and resolve incoming complaints from Metro's Transit Watch program;
- Respond to and resolve citizen complaints related to criminal activity;
- Conduct proactive anti-crime operations when not handling a dispatched call;
- Participate in Metro emergency and disaster preparedness planning and drills;
- Collaborate with social service agencies to address the impact of homelessness on the transit system;
- Enforce Metro's Code of Conduct;
- Attend weekly coordination meetings or other meetings as required; and
- Provide additional law enforcement services to address unforeseen events/requirements.



In addition to contract transit law enforcement services, Metro's SSLE Department employs Transit Security Officers (TSO) who provide security over Metro facilities, perform fare compliance checks, and patrol bus and rail systems. Metro TSOs are not sworn or certified law-enforcement officers and do not have authority to detain or arrest.



3. Objectives, Scope and Methodology

On February 23, 2017, the Metro Board passed a motion directing that “the Inspector General be tasked with annually auditing each law enforcement services contract to determine how key performance indicators are measuring up against actual performance metrics. The audit is to ensure that Metro is receiving the services it is paying for.”

The overall objective of the audit is to evaluate transit security performance provided by each of the three Contractors and Metro’s Transit Security Department during FY 2018. In particular, the audit will review, analyze, and report on:

- Actual performance of the performance indicators in the transit law enforcement services contracts.
- Contractor (LAPD, LASD, LBPD) adherence to requirements in matters such as:
 - Personnel and training,
 - Reporting,
 - Community Policing Plan,
 - Billing, and
 - Security and Emergency Preparedness.
- Effectiveness of fare compliance checks.
- Number of fare validation checks accomplished in FY 2018, compared to fare checks made in the previous 3 years.
- Number of citations issued in FY 2018, compared to the past 3 years.
- Crime statistics for Metro in FY 2018, compared to the statistics for the past 3 years.

The methodology used to complete this review is described in each section of this report.



4. Review Results

The following sections provide information on the results of the review of Metro's transit security function performance review.

A. Trends in Reported Crime, Perceptions of Safety, and Complaints

There are three key outcome measures that can be used to evaluate the effectiveness and trends of Metro's safety and security approach and program. These are the level of reported crime on the system, the perceptions of safety by users of the system, and the number of safety and security complaints made by users of the system. Each of these are described in the following sections.

Reported Crime

Crime and disorder risks within the Metro System include the incidents of crime, general disturbances of the peace, and public safety. These risks are similar to those faced by most communities, albeit in a more specific arena. Crime and disorder risks are measured primarily by the number and severity of crime that occurs within an area.

Finding 1: Obtaining complete and accurate reporting of crime that occurs on the Metro System continues to be challenging.

Some crimes that occur on the Metro System are not reported to Metro and therefore cannot be tracked or used to determine trends in crime on the Metro System. This is partially due to the fact that the Metro System operates within multiple jurisdictions with their own law enforcement agencies.

Many calls for service on the Metro System are received directly by local law enforcement agencies. This is due to patrons on the Metro System dialing 911 on their mobile phones to report an incident and to request law enforcement services. These calls would, in most cases, go to the public safety call taking and dispatch center of the local law enforcement agency. Once the call is received, the incident or call would be responded to and handled by the local law enforcement agency. The call would be given a priority and would be responded to and handled as deemed appropriate by the local law enforcement agency given the relative priority of other calls the agency is handling.

These law enforcement agencies respond to and handle an unknown number of crimes that occur within the Metro System. This is the case in the areas of the Metro System that are serviced by the LASD, much of which is within the jurisdiction and service area of municipal law enforcement agencies. In many cases, the LASD is not informed of



these crimes and so has no way to track or report them. In other cases, the LASD may receive a copy of the crime report, but these crimes are not added to the crimes reported to Metro as having occurred within the system because they are not responded to and handled by the LASD.

In the LAPD service area of the Metro System, LAPD neighborhood patrol units respond to and handle many crimes that occur within the Metro System. An unknown number of these crimes are not reported to the LAPD Transit Policing Division and so are not tracked and reported to Metro. The LAPD has developed an approach and system to identify these crimes and include them in the tracking and reporting of crime that occurs within the LAPD service area of the Metro System. However, this system is still fairly new and not all LAPD neighborhood police units are aware of the need to report these crimes to the LAPD Transit Policing Division.

Recommendation 1: The Metro SSLE Department should continue to work with contract and other law enforcement agencies to improve the complete and accurate reporting of crime that occurs on the Metro System.

Reported Part I Crime

The Federal Bureau of Investigation (FBI) Uniform Crime Reporting system defines serious crime (Part I) as homicides, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft and arson. The Uniform Crime Reports (UCR) are official data on crime in the United States, published by the FBI. UCR is a nationwide, cooperative statistical effort of law enforcement agencies voluntarily reporting data on crimes. Crime statistics are compiled from UCR data and published annually by the FBI in the Crime in the United States report series.

Reported Violent Crime

Part I violent crime¹ includes homicide, rape, aggravated assault, and robbery. Total reported Violent Crime on the Metro System decreased by 18% between FY 2015 and FY 2018, with most of this decrease (14%) occurring between FY 2017 and FY 2018.

As shown in Exhibit 1, Part I Violent Crimes reported to Metro during the four-year period (FY 2015 to FY 2018) declined by 18% during the period. The most significant decline

¹ In the FBI's UCR Program, violent crime is composed of four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Violent crimes are defined in the UCR Program as those offenses which involve force or threat of force.



occurred between FY 2017 and FY 2018 with a 14% decline. Some of this decline may be due to a 12% decline in ridership over the four-year period. As the exhibit shows, reported violent crime per million riders declined 14% between FY 2017 and FY 2018, but only declined 7% over the entire four-year period.

Exhibit 1								
Reported Part 1 Violent Crime on the Metro System FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Homicide	1	3	200%	3	0%	1	-67%	0%
Rape	3	11	267%	5	-55%	16	220%	433%
Robbery	375	404	8%	404	0%	393	-3%	5%
Aggravated Assault	370	322	-13%	308	-4%	219	-29%	-41%
Aggravated Assault on an Operator	30	18	-40%	20	11%	6	-70%	-80%
Totals	779	758	-3%	740	-2%	635	-14%	-18%
Ridership (Millions)	445.3	428.9	-4%	390.0	-9%	390.9	0%	-12%
Per 1 Million Riders	1.75	1.77	1%	1.90	7%	1.62	-15%	-7%
Per Day	2.13	2.08	-2%	2.03	-2%	1.74	-14%	-18%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018

Reported Property Crime

Property crime on the Metro system is also an important consideration. Part I Property Crimes² include burglaries, thefts, motor vehicle thefts, and arsons. Total reported Property Crime per day on the Metro System decreased 15% between FY 2015 and FY 2018, with a decrease of 16% occurring between FY 2015 and FY 2017, and an increase of 1% occurring between FY 2017 and FY 2018.

As shown in Exhibit 2 Part I Property Crimes reported to Metro during the four-year period compared (FY 2015 to FY 2018) declined by 15% during the period. The most significant decline occurred between FY 2015 and FY 2017 with a 16% decline. Some of this decline may be due to a 12% decline in ridership over the four-year period. As the exhibit shows,

² In the FBI's UCR Program, property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. These theft-type offenses involve the taking of money or property, without force or threat of force against the victims. The property crime category includes arson because the offense involves the destruction of property.



reported property crime per million riders declined 3% over the four-year period. Reported Property Crime essentially stayed the same between FY 2017 and FY 2018.

Exhibit 2								
Reported Part 1 Property Crime on the Metro System FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	16	12	-25%	18	50%	11	-39%	-31%
Larceny-Theft	1027	921	-10%	882	-4%	927	5%	-10%
Grand Theft Auto	138	128	-7%	101	-21%	71	-30%	-49%
Arson	3	8	167%	4	-50%	2	-50%	-33%
Totals	1,184	1,069	-10%	1,005	-6%	1,011	1%	-15%
Ridership (Millions)	445.3	428.9	-4%	390.0	-9%	390.9	0%	-12%
Per 1 Million Riders	2.66	2.49	-6%	2.58	4%	2.59	0%	-3%
Per Day	3.24	2.93	-10%	2.75	-6%	2.77	1%	-15%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018

Reported Other Crime

Other significant crime (Part II³) reported also provides useful information on the safety and security of the Metro System. Total reported Other Crime (Part II) per day on the Metro System decreased 15% between FY 2015 and FY 2018, with a decrease of 16% occurring between FY 2015 and FY 2017, and an increase of 1% occurring between FY 2017 and FY 2018.

As shown in Exhibit 3 on the following page, Other Crime (Part II) reported to Metro during the four-year period compared (FY 2015 to FY 2018) declined by 17% during the period. The most significant decline occurred between FY 2016 and FY 2017 with an 11% decline. Some of this decline may be due to a 12% decline in ridership over the four-year period. As the exhibit shows, reported other crime per million riders declined 3% over the four-year period. Reported other crime declined 8% between FY 2017 and FY 2018.

³In the FBI's Uniform Crime Reporting (UCR) Program Part II, the following categories are tracked: simple assault, curfew offenses and loitering, embezzlement, forgery and counterfeiting, disorderly conduct, driving under the influence, drug offenses, fraud, gambling, liquor offenses, offenses against the family, prostitution, public drunkenness, runaways, sex offenses, stolen property, vandalism, vagrancy, and weapons offenses.



Exhibit 3								
Reported Other Crime (Part II) on the Metro System								
FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	450	512	14%	501	-2%	766	53%	70%
Battery on Op	63	114	81%	84	-26%	74	-12%	17%
Sex Offenses	88	120	36%	123	3%	151	23%	72%
Weapons	99	74	-25%	83	12%	50	-40%	-49%
Narcotics	502	292	-42%	341	17%	138	-60%	-73%
Trespassing	160	197	23%	83	-58%	59	-29%	-63%
Vandalism	321	375	17%	291	-22%	154	-47%	-52%
Totals	1,683	1,684	0%	1,506	-11%	1,392	-8%	-17%
Ridership (Millions)	445.3	428.9	-4%	390.0	-9%	390.9	0%	-12%
Per 1 Million Riders	3.78	3.93	4%	3.86	-2%	3.56	-8%	-6%
Per Day	4.61	4.61	0%	4.13	-10%	3.81	-8%	-17%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018

Trends in reported crime over the four-year period for each rail line, bus operations, and for Union Station are provided in Appendix A of this report.

Trends in Rider Perceptions of Safety

Perception of crime and disorder on the Metro System, and any mass transit system for that matter, creates a risk to the confidence in safety held by passengers and Metro employees and poses a risk to the reputation of Metro as a safe and secure system. Passengers who perceive the system to be unsafe will not use the service and therefore reduce the number of people using transit and Metro’s ridership.

Based on Metro’s On-Board Customer Satisfaction Surveys conducted during FYs 2015 to 2019 the percentage of riders responding they feel safe either waiting for a train or riding a train declined between FY 2015 and FY 2019. In FY 2015, 84% of riders responded they felt safe waiting for a train, compared to 79% for FY 2019. Similarly, in FY 2015 83% of riders responded they feel safe riding a train, compared to 77% for FY 2019, as shown in Exhibit 4 on the following page.



Exhibit 4									
Metro Rider Perceptions of Safety of Train and Bus System									
2015	2016	Change	2017	Change	2018	Change	2019	Change	Total Change
Percentage Responding Feel Safe Waiting for a Train									
84%	82%	-2.4%	80%	-2.4%	82%	2.5%	79.0%	-3.7%	-6.0%
Percentage Responding Feel Safe Riding a Train									
83%	81%	-2.4%	79%	-2.5%	79%	0.0%	77.0%	-2.5%	-7.2%
Percentage Responding Feel Safe Waiting for a Bus									
85%	88%	3.5%	86%	-2.3%	87%	1.2%	87.0%	0.0%	2.4%
Percentage Responding Feel Safe Riding a Bus									
89%	91%	2.2%	90%	-1.1%	90%	0.0%	91.0%	1.1%	2.2%
Source: Metro On-Board Customer Satisfaction Surveys Conducted during FYs 2015 to 2019									

As this exhibit shows, the percentage of riders responding they feel safe either waiting for a bus or riding a bus increased between FY 2015 and FY 2019. In FY 2015, 85% of riders responded they felt safe waiting for a bus, compared to 87% for FY 2019. Similarly, in FY 2015 89% of riders responded they feel safe riding a bus, compared to 91% for FY 2019.

These changes in perceptions of safety are small and within the margin of error for the survey. However, it is important to continue to monitor rider perceptions of safety on the Metro System and to develop strategies to address concerns and improve that perception.

Trends in Complaints Regarding Safety and Security

Another important indicator of the public or riders' perception of the safety of the Metro System is the number of complaints received regarding safety and security. Metro Customer Relations tracks complaints received by category using the C-CATS complaint tracking system.

During the period from FY's 2015 to 2018 rider complaints regarding passenger safety or conduct issues were not among the top ten complaints on the bus system. However, on the rail system, rider complaints regarding passenger safety or conduct issues were the second most common complaint of the top ten complaints for FY's 2015 to 2017. For FY 2018, complaints regarding passenger safety or conduct issues dropped to number five of the top ten.

As Exhibit 5 on the following page shows, complaints regarding passenger safety or conduct issues increased from 296 in FY 2015 to 381 in FY 2016 and to 458 in FY 2017. These complaints declined by over half for FY 2018.



Exhibit 5 Number of Metro Rider Complaints Regarding Passenger Safety or Conduct Issues							
2015	2016	Change	2017	Change	2018	Change	Total Change
296	381	28.7%	458	20.2%	223	-51.3	-24.7%

The Metro SSLE Department should continue to monitor rider survey results regarding perceptions of the safety of riders on the Metro System and complaints regarding safety and passenger conduct issues, and develop strategies to address significant rider concerns, improve perceptions, and reduce complaints.



B. Resource Monitoring and Oversight

Metro's SSLE Department is charged with ongoing oversight of the contracted law enforcement services as well as the operations of Metro Security. We reviewed and evaluated the oversight and supervision provided by SSLE to ensure compliance with contract requirements.

Audits of Contracted Law Enforcement Personnel Presence

Metro has and will continue to have a substantial investment in resources devoted to system safety and security. Ensuring that these resources are effectively and efficiently used is very important.

Oversight and monitoring of contracted law enforcement resources has been problematic. Metro has had some difficulty in ensuring that law enforcement personnel assigned to Metro are actually present and performing as assigned. Historically, Metro has not had an effective means of verifying the accuracy of this reporting, or of verifying that personnel charging time on the Metro contract are actually present and providing the contracted services.

Beginning with FY 2018, the SSLE Department implemented regular "audits" of law enforcement personnel. These paper audits involve comparing the amounts billed by each law enforcement agency on the invoice to information on personnel charging time to the contract and the roster or schedule of personnel working (in-service). This comparison is completed for specific days each month. These regular paper audits are a positive step and provide increased oversight and monitoring of law enforcement staffing. However, these audits only monitor consistency between personnel time reporting and the invoice. They do not ensure that personnel charging time are actually present and working as assigned.

Observation: Field audits of contracted law enforcement personnel presence strengthens contract oversight and monitoring.

In September 2017, Metro's SSLE Department contract compliance staff began conducting "field audits" of law enforcement personnel to verify personnel assigned to work under each contract are actually present. These audits involve taking the roster of law enforcement personnel assigned to work and verifying that those personnel are actually in the field and providing the contracted service. These "spot" checks are a move in the right direction and provide some assurance that law enforcement services are being provided as contracted. This approach is different from the approach recommended in the FY 2017 performance review to use radio and camera systems throughout the Metro



System several days each month to conduct audits of personnel assigned. However, the field audit approach should be at least as effective.

The Metro SSLE Department should continue to conduct field audits of contracted law enforcement personnel to provide assurance that the law enforcement services contracted for are actually being provided.

GPS Based Contracted Law Enforcement Oversight and Monitoring

The Metro SSLE Department has been working to develop and implement an effective method of tracking and monitoring the activities of safety and security resources deployed on the Metro System using the GPS function on smartphones used by Metro safety and security personnel. There is much potential for this function to provide a reliable and verifiable mechanism for Metro to ensure that contracted law enforcement resources are being used effectively and as planned.

The Mobile Phone Validators (MPV) provided to contracted law enforcement officers are now GPS enabled and are able to provide information on the location and movement of the MPV and law enforcement resources. This information is being used by two of the contracted law enforcement agencies (LAPD and LBPD) to monitor the deployment of their resources under the contract and have reportedly found this function to be helpful. The other law enforcement agency (LASD) has not fully used this function due to concerns raised by the LASD's labor union.

Finding 2: The Mobile Phone Validator GPS function and information generated is not being used by Metro to monitor or provide oversight of contracted law enforcement resources.

Metro has not yet begun using the GPS function and information generated to track or monitor the activities of contracted law enforcement resources. This is partially due to concerns about live tracking of police personnel outside of each police agency and partially due to concerns raised by the LASD's labor union.

These concerns could largely be mitigated by taking a more macro approach to monitoring and oversight. Rather than tracking each individual MPV and officer, the system and data could be used to generate overall information such as how much time was spent at different locations or parts of the Metro System. For example, the function and data could be used to generate reports on the amount of time spent riding each rail line, patrolling each station, or riding on buses. The data collected could be anonymous and not provide information on individual MPV or officers, which should largely alleviate concerns raised.



Recommendation 2: The Metro SSLE Department should continue to work to develop a more macro approach to oversight and monitoring of contracted law enforcement resources using the GPS function of the Mobile Phone Validators (MPV) assigned to contracted law enforcement personnel and the data generated from them.

Oversight of Other Law Enforcement Contract Requirements

Providing monitoring and oversight of contract law enforcement personnel assigned to ensure they are actually present and providing the service Metro is paying for is a top priority. However, it is also important that monitoring and oversight be performed to ensure other contract requirements are also being complied with. These contract requirements include those related to the qualifications and training of personnel assigned, reports and information being provided to Metro, equipment provided under the contract, and providing appropriate support for invoices submitted.

Observation: Monitoring and oversight of compliance with law enforcement contract requirements could be strengthened.

In our review of compliance with the contract terms, we found some instances of non-compliance with the terms in the above areas (See Section E: Compliance with Contract Requirements of this report for our discussion and recommendations). Increased monitoring and oversight of these requirements seems warranted given the size of the contract and the importance of the services being provided.

Observation: Billing discrepancies with contract terms were identified for the two months reviewed as part of this audit.

In our review of compliance with contract terms (See Section E of this report – Compliance with Contract Requirements for our discussion and recommendations) we also found some instances where contract billings and payments were not in compliance with the contract terms, resulting in potential overbillings and overpayments. Billings and payments for all twelve months of FY 2018 should also be reviewed since this audit focused on only two months. Metro should also consider amending the billing terms of the contracts if needed.

SSLE Department Changes

The following key organizational changes were reported by the SSLE Department during FY 2018.



- A new Director of Compliance was appointed in 2018. This change has greatly improved overall contract compliance and performance management.
- A new Deputy Executive Officer (DEO) joined the team in 2019. The DEO will oversee the design and construction of Metro's new Emergency Services Operations Center (ESOC). The ESOC will serve as SSLE's central command center, integrating law enforcement, transit security, and physical security operations.
- A new Executive Officer (EO) joined the team in 2019. The EO will serve as the Deputy Chief of the SSLE and will directly oversee transit security and emergency management operations.
- LA Metro's Emergency Management Department joined the SSLE in 2019. This will ensure seamless communications/planning between law enforcement, transit security, and operations.



C. Key Performance Indicators (KPIs)

It is essential that Metro clearly define performance expectations for each of the contract law enforcement agencies and use meaningful performance indicators to evaluate how well these expectations are being met. The following exhibit shows the KPI included in each of the three law enforcement contracts.

Exhibit 6					
Key Performance indicators in Law Enforcement Services Contracts					
	KPI Title	Definition	LAPD	LASD	LBPD
1	The number of foot and vehicle patrols of bus stops, transit centers, train platforms, plazas, stations	The total number of patrol minutes per officer spent on the following: <ul style="list-style-type: none"> Riding the train/buses Foot patrols of bus stops/transit centers/train platforms/plazas/stations Vehicle patrols of bus stops, transit centers, train platforms, plazas, stations 	X	X	Train Only
2	Ratio of staffing levels and vacant assignments	The number of officers required to work per contract compared to the number of officers present	X	X	X
3	Ratio of proactive versus dispatched activity	The percentage of time law enforcement personnel spend proactively patrolling the system compared to responding to calls for service	X	X	X
4	Number of bus and train boardings	The number of times contracted law enforcement personnel board buses or trains	X	X	Train Only
5	Incident response times	The time from when the call is received by the police department (dispatch center) to the time when a law enforcement officer actually makes contact at the scene	X	X	X
6	Decreases/Increases in crime	Part 1 & Part 2 crimes per million passenger boardings	X	X	X
7	Number of grade crossing operations	Each agency conducts 1 grade crossing operation per month (minimum 4-hour operation). The focus is on pedestrian safety and vehicle compliance with gates	X	X	X
8	Number of fare enforcement operations	The number of contracted law enforcement agencies operations focused specifically on fare enforcement.	NA	NA	X



To review key performance indicators, we:

- Obtained, summarized, and analyzed the monthly reports on KPIs for FY 2018.
- Determined whether Metro and the three law enforcement agencies jointly developed baseline performance metrics for each KPI in the contract.
- If the baseline performance metrics were developed, compared the baseline performance metrics for each KPI to actual performance for each agency. Discussed with Metro management the reason(s) for any KPIs where actual performance was above the metrics (30% or more), and determined appropriate corrective actions.
- If baseline performance metrics were not developed, determined the reason and timeframe for developing these metrics.

Reporting of Crime and Incident Response Time Indicators

Two of the KPI included in each of the law enforcement contracts were intended to provide information on the outcomes of the law enforcement service provided. These are:

- Decreases/Increases in crime
- Incident response times

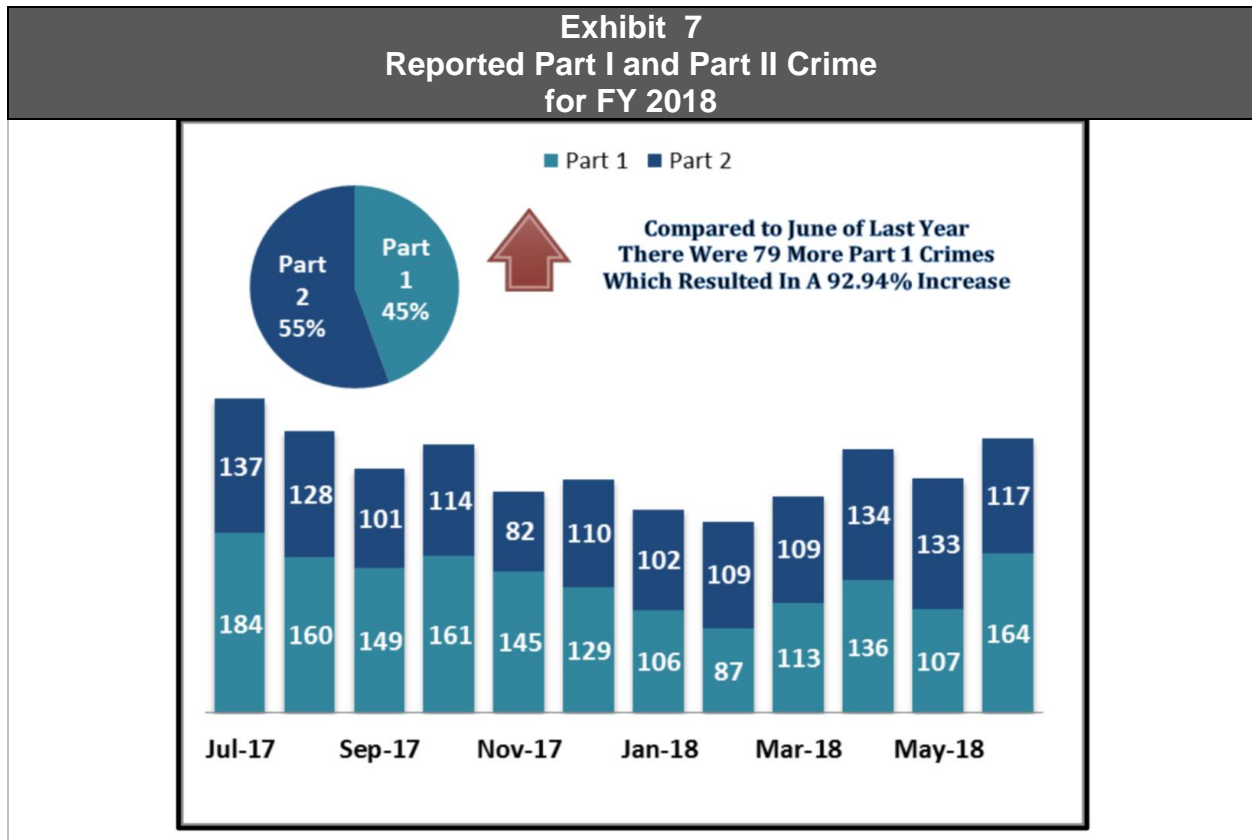
The level of crime on the Metro System is clearly the most important indicator of the effectiveness of Metro's SSLE Department and each of the contract law enforcement agencies. Continuing to track and report the level of crime on the system is essential.

Finding 3: Current aggregate reporting of all reported Part I and Part II crime on the Metro System does not adequately reflect the amount of reported violent crime.

In crime reporting, the emphasis should be on violent crime, which is obviously the most impactful to the Metro System and has the greatest impact on Metro's riders. Reporting all crime in the aggregate is much less meaningful because the number of violent crimes such as homicide, robbery, and rape is given the same weight as lesser crimes such as larceny, petty theft, and vandalism.

As discussed in Section A of this report, complete and accurate reporting of crime on the Metro System continues to be a challenge.

The following Exhibit 7 shows how crime on the Metro System is reported.



Recommendation 3: The Metro SSLE Department should consider providing more detailed information on reported crime to distinguish between violent crime and property and petty crime.

A primary workload for law enforcement is responding to and handling incidents that occur on the Metro System or calls for service. Responding to these calls and effectively handling the incidents that generate these calls is a high priority for ensuring system safety and security. Calls for service that require a physical response are categorized and dispatched by each of the law enforcement agencies using priority categories. The following are representative of categories used:

- **Emergency Calls:** Are the highest priority and include situations where life or property is in imminent danger. These include crimes in progress such as robberies, rapes, assaults, or burglaries. These also include violent domestic disturbances and reports of individuals with guns or other weapons.
- **Priority Calls:** Include situations that require a fairly immediate police response, with no immediate threat to life or property. These could include disputes, disturbances of the peace, and suspicious activities.

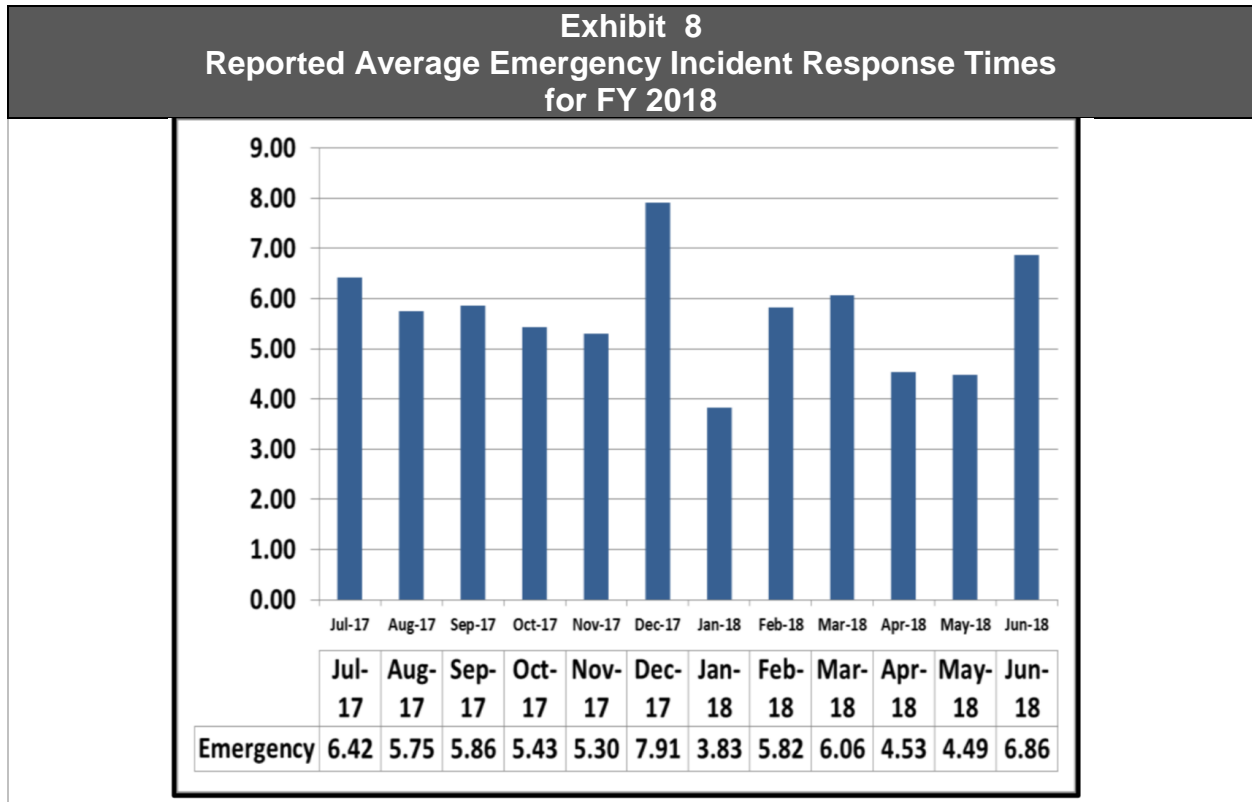


- **Routine Calls:** Include calls where there is no substantial threat to life or property, but a response is needed. These include taking reports on crimes where a significant amount of time has elapsed since the occurrence of the crime as well as quality of life issues that need to be addressed.

Finding 4: Metro’s SSLE Department currently only collects and reports response time information for emergency calls for service.

While emergency calls for service are obviously the most important calls, tracking and reporting response time on less urgent incidents and calls for service is also important. Often these lower priority calls for service involve quality of life issues and concerns as well as victims of property crimes. A slow response to these incidents can have a negative impact on the perception of the riding public that the system is safe and well protected. In addition, not requiring contract law enforcement agencies to track and report these response times communicates to them and their officers that these calls are not important.

Exhibit 8 below shows that the monthly average emergency incident response times for FY 2018 ranged from 3.83 minutes to 7.91 minutes.





Recommendation 4: The Metro SSLE Department should collect and report response time information for all three categories of calls for service.

Visibility of Law Enforcement Security Personnel Indicators

Providing a visible security presence within the Metro System is an important strategy for providing both a sense and reality of safety. Uniformed patrols, usually within the high traffic stations of the system creates a felt presence of safety and security among the riding public. Visible presence in areas frequently used by passengers include areas near fare gates, boarding areas of buses and trains, station entrances, and public parking areas.

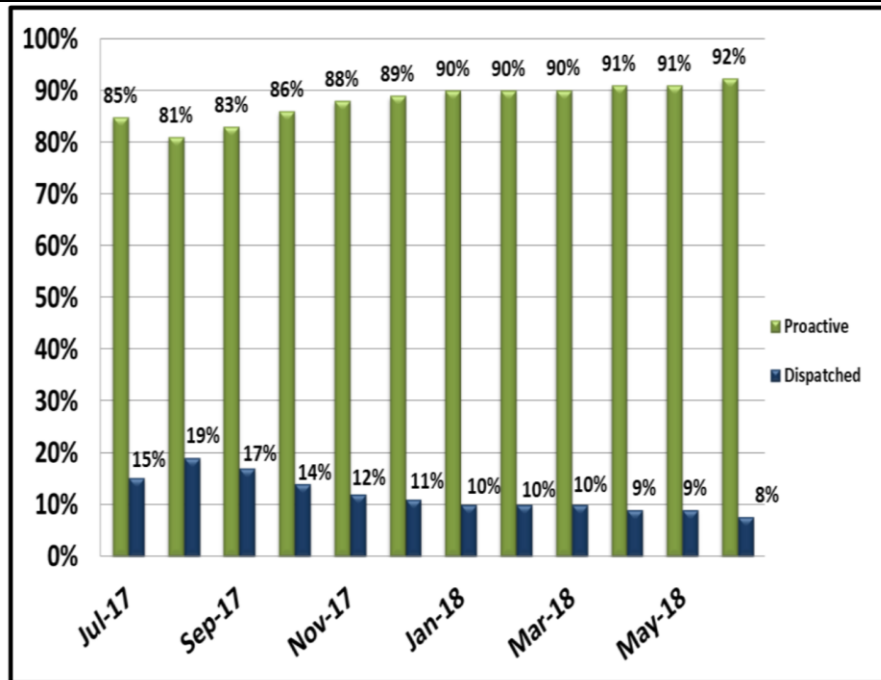
Three of the KPI included in each of the law enforcement contracts were intended to provide information on the visibility of law enforcement security personnel on the system. These are:

- The ratio of proactive versus dispatched activity
- The number of foot and vehicle patrols of bus stops, transit centers, train platforms, plazas, stations
- The number of bus and train boardings

Contract law enforcement agencies were able to only report on the ratio of proactive versus dispatched activity. This is an important measure related to visibility as it indicates how much of their time is spent being visible, doing problem solving, and other proactive activities including community policing. Exhibit 9 on the following page shows the distribution of time spent by contract law enforcement agencies. As this exhibit shows, the reported proactive law enforcement activity ranged from a low of 81% in August of 2017, to a high of 92% in June of 2018. This also shows a positive trend.



Exhibit 9
Contract Law Enforcement Proactive vs. Dispatched Activity
for FY 2018



Finding 5: Contract law enforcement agencies were not able to report on two of the Key Performance Indicators outlined in each of the contracts:

- The number of foot and vehicle patrols of bus stops, transit centers, train platforms, plazas, stations
- Number of bus and train boardings

While these are important indicators and would provide useful information on the level of activity and visibility of contracted law enforcement personnel, it was not practical for the agencies to reliably collect meaningful information for these indicators. This is partly due to the lack of definition for patrols or boardings and partly due to the fact that reliably tracking this information would be difficult even with clear definitions.

In addition, what is important is the amount or percentage of contracted law enforcement time that is actually spent on trains and buses, platforms, and stops. The count of the number of times law enforcement personnel step on or off a train or bus or other locations is not that useful. As discussed in Section B of this report, using the GPS function and data generated could provide reliable and meaningful information on the amount of time contracted law enforcement officers spend on each of these activities.



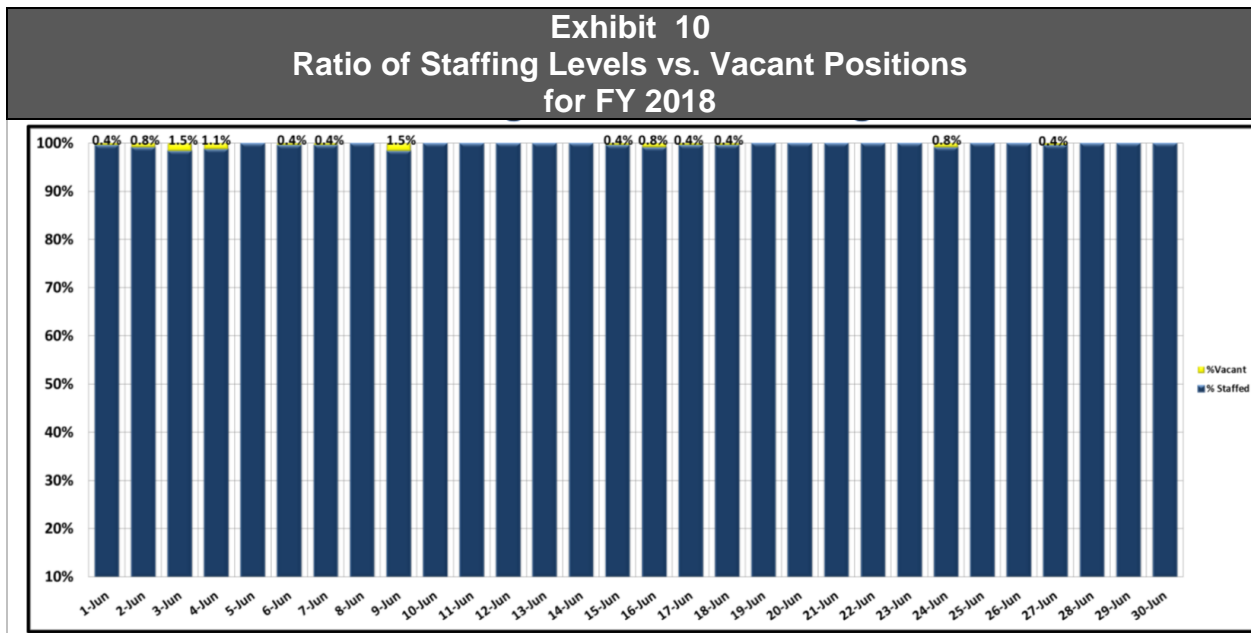
Recommendation 5: The Metro SSLE Department should use the GPS function and data generated to provide reliable and meaningful information on the amount of time contracted law enforcement officers spend on various parts of the Metro System.

Law Enforcement Personnel Presence Indicator

One of the KPI included in each of the law enforcement contracts was intended to provide information on the presence of the contracted law enforcement personnel. This is the ratio of staffing levels and vacant assignments.

This performance indicator is largely the result of past experience where a significant number of the law enforcement assignments that were to be staffed by contracted law enforcement were vacant or were not staffed. This indicator is important in both communicating to the contract law enforcement agencies the need to actually staff contracted assignments and to report how effectively these positions are actually being staffed.

As shown in Exhibit 10 staffing levels have been at 98.5% or higher for FY 2018.



Law Enforcement Personnel Activity Indicators

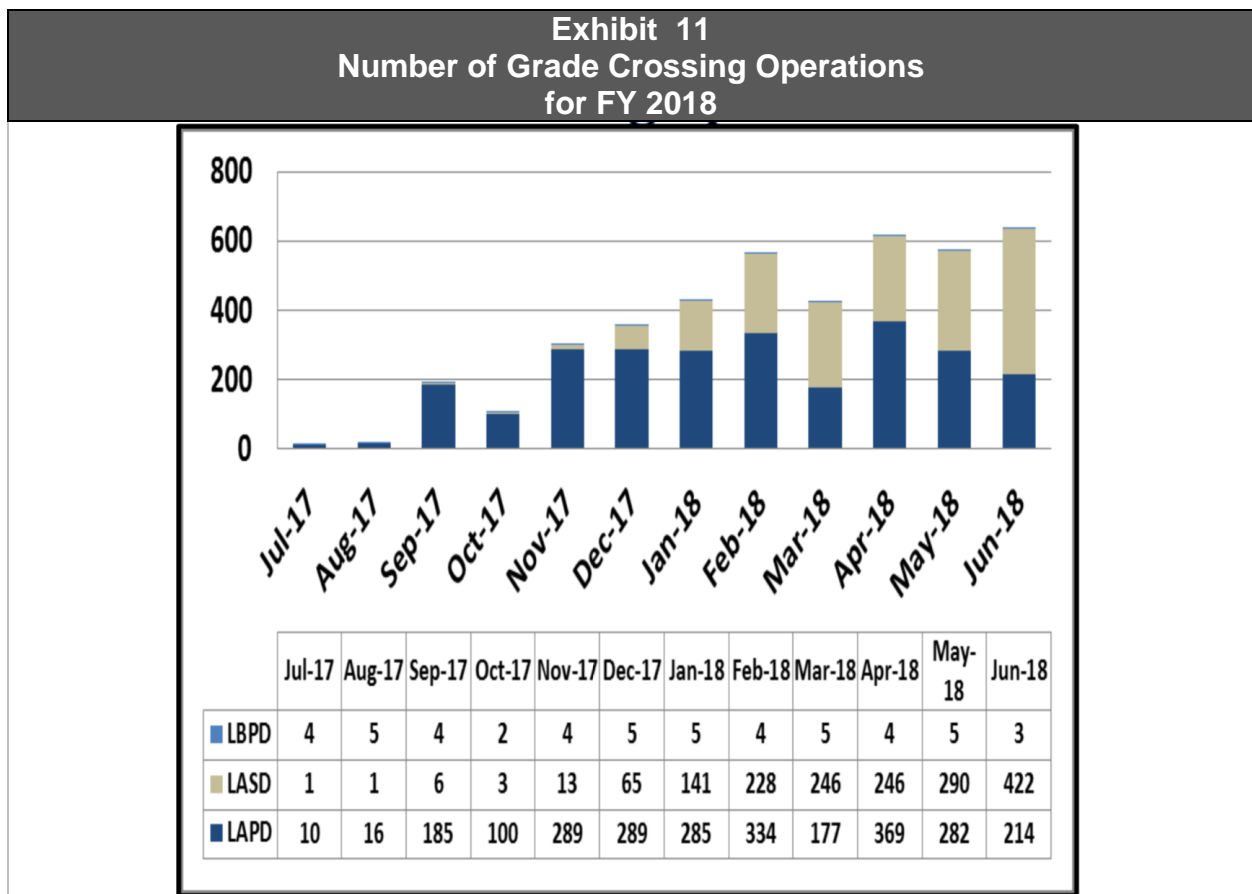
Two of the KPI included in law enforcement contracts were intended to provide information on the level of specific activities of the contracted law enforcement personnel. These are:



- Number of grade crossing operations
- Number of fare enforcement operations (Only LBPD)

A grade crossing is where a rail line and road or pedestrian walkway come together. Each contracted law enforcement agency is required to conduct grade crossing operations to enforce grade crossing rules and improve pedestrian safety. Each of these operations are to be for four hours. Exhibit 11 on the following page shows the number of grade crossing operations for each month by law enforcement agency. As this exhibit shows, reported grade crossing operations increased from 15 in July of 2017 to 639 in June of 2018.

The number of fare enforcement operations is a KPI reporting requirement for only the Long Beach Police Department. Information on the number of these operations is not included in the monthly KPI reports.





Baseline Expectations and Potential Performance Indicators

Performance measurement and reporting demonstrates the success or effectiveness of organizational or program activities in addressing a specific need or attaining a specific goal. A meaningful performance measurement framework includes a balanced set of indicators, ensures the collection of sound and reliable indicator data, provides for the analysis and reporting of indicator information and drives service improvement efforts and the testing of new initiatives.

In addition, it is important to establish baseline expectations or targets for each performance indicator. This not only clearly communicates performance expectations; it also can help drive improvements in performance through development and implementation of new strategies.

Finding 6: Baseline performance levels for each Key Performance Indicator have not been developed.

To establish clear expectations, Metro’s SSLE Department should work with contract law enforcement agencies to establish baseline or target performance levels for each KPI currently in use. They should also work together to determine if additional KPI’s would be appropriate and meaningful. The following Exhibit 12 provides a list of potential performance indicators as a starting point for discussions between Metro’s SSLE Department and contract law enforcement agencies on performance tracking and reporting.

Exhibit 12 Potential Performance Indicators		
Indicator	Data Source	Comments
Metro Patrons / Riders Perceptions of Safety and LASD Service		
Percentage of Metro Patrons / Riders who feel safe on the system: During the Daytime During the Nighttime	Annual or Bi-annual safety and security survey of Metro Patrons / Riders.	Community surveys have become very common among law enforcement agencies to gauge the level of fear of crime, as well as the level of satisfaction with law enforcement services provided.
Percent of Metro Patrons / Riders who feel likely / unlikely to be crime victims on the Metro system.		
Percent Favorable Impression of Transit Policing Services		
Service Rating - Follow-up		
Service Rating - Problem Solving		
Service Rating - Response Time		



Exhibit 12 Potential Performance Indicators		
Indicator	Data Source	Comments
Service Rating - Service Quality		
Service Rating - Fairness		
Service Rating - Helpfulness		
Crime on the Metro System		
Part I Violent Crime (Homicide, Rape, Aggravated Assault, Robbery)	Crime as reported to the FBI Uniform Crime Reporting System, including both crimes responded to and handled by the contract law enforcement agencies and by other municipal law enforcement agencies.	Crime should be tracked and reported by line, with trends tracked over time to identify areas of concern or requiring additional focus.
Part I Violent Crimes per Million Riders	Total Part I Violent Crimes divided by the average number of daily passengers on the line, multiplied by a million.	This indicator will allow comparison as the transit system and ridership continues to expand. This ratio should also be tracked and reported by line over time to identify areas of concern or requiring additional focus.
Part I Property Crime (Burglary, Theft, Grand Theft Auto, and Arson)	Crime as reported to the FBI Uniform Crime Reporting System, including both crimes responded to and handled by the contract law enforcement agencies and by other municipal law enforcement agencies.	Crime should be tracked and reported by line, with trends tracked over time to identify areas of concern or requiring additional focus.
Part I Property Crimes per Million Riders	Total Part I Property Crimes divided by the average number of daily passengers on the line, multiplied by a million.	This indicator will allow comparison as the transit system and ridership continues to expand. This ratio should also be tracked and reported by line over time to identify areas of concern or requiring additional focus.
Part II Crime	Crime as reported to the FBI Uniform Crime Reporting System, including both crimes responded to and handled by the contract law enforcement agencies and by other municipal law enforcement agencies.	Crime should be tracked and reported by line, with trends tracked over time to identify areas of concern or requiring additional focus.
Emergency Call Taking, Dispatch and Response		



Exhibit 12 Potential Performance Indicators		
Indicator	Data Source	Comments
Time to Answer 911 Calls (Seconds)	Call center and Computer Aided Dispatch system software.	Each of these are standard performance indicators that should be tracked using basic call center and Computer Aided Dispatch Software.
Percent Calls Dropped		
Call Processing Time (Minutes)		
Emergency Dispatch Time (Minutes)		
Priority Dispatch Time (Minutes)		
Routine Dispatch Time (Minutes)		
Emergency Patrol Response Time (Minutes)		
Priority Patrol Response Time (Minutes)		
Routine Patrol Response Time (Minutes)		
Criminal Investigations		
Violent Crime Clearance Rate	FBI Uniform Crime Reporting	This provides an indication of how effective criminal investigators are at solving crime on the Metro system.
Violent Crimes per Investigator	Number of violent crimes reported divided by the number of investigators assigned to investigate them.	This provides an indication of the level of investigative workload for TSB investigators.
Property Crime Clearance Rate	FBI Uniform Crime Reporting	This provides an indication of how effective criminal investigators are at solving crime on the Metro system.
Property Crimes per Investigator	Number of property crimes reported divided by the number of investigators assigned to investigate them.	This provides an indication of the level of investigative workload for TSB investigators.
Metro Patron / Riders Commendations and Complaints, and Internal Affairs Investigations		
Number of Commendations	Contract law enforcement agency Service Commendation and Complaint Tracking System	Provides an indication of the number of times Metro patrons or riders are pleased with the actions of the contract law enforcement personnel.
Commendations per 100 Contracted Law Enforcement Personnel		Provides for a comparison of performance over time with changes in staffing levels.



Exhibit 12 Potential Performance Indicators		
Indicator	Data Source	Comments
Number of Complaints Against Sworn Officers		Provides an indication of the number of times Metro patrons or riders complain about the actions of contract law enforcement personnel.
Complaints per 100 Sworn Officers		Provides for a comparison of performance over time with changes in staffing levels.
Number of Complaints against Metro Security Officers		Provides an indication of the number of times Metro patrons or riders complain about the actions of Metro Security personnel.
Complaints per 100 Metro Security Officers		Provides for a comparison of performance over time with changes in staffing levels.
Number of Internal Affairs Cases	Internal Affairs	Provides an indication of the number of serious allegations against contract law enforcement and Metro Security personnel.
Internal Affairs Cases per 100 Assigned Personnel		Provides for a comparison of performance over time with changes in staffing levels.

Recommendation 6: The Metro SSLE Department should work with the contract law enforcement agencies to review, revise, and adopt KPI's including baseline or target levels of performance for each KPI.



D. Community Policing

According to the U.S. Department of Justice's Office of Community Oriented Policing Services (COPS), community policing is an approach defined by combining the development of partnerships (i.e., the building of relationships) among affected stakeholders and with problem solving. Concerted engagement in these activities ultimately results in transformations within law enforcement organizations and communities as their efforts break down cultural barriers.

Community policing within a transit system should place an emphasis on quality of life issues. The customers of the Metro System must feel safe and secure. The presence of security, in whatever form, must have a "felt presence;" and must be visible and engaged without becoming oppressive and threatening.

Quality of life issues such as fare evasion, graffiti, and panhandling are problems within the system. Program personnel should employ a zero-tolerance approach for minor issues in order to ensure that an environment enabling the commission of major crimes does not emerge.

Each of the law enforcement services contracts contains requirements related to community policing. The specific requirements are:

- The Contractor shall update annually the Metro approved Community Policing Plan. Building and sustaining community partnerships is central to Metro's goal of reducing vulnerability to crime. This will require periodic attendance at community meetings and other events designed to foster Metro's relationship with the community. Contractor's staff shall be provided specific training in Problem Oriented Policing in order to assist Metro in addressing longstanding challenges related to crime, blight, and disorder. The cost of such training and/or exercises are eligible for reimbursement by Metro under this Contract.
- As part of the Community Policing Plan, it is important for the Contractor to incorporate feedback from rail managers into the overall policing strategy. Maintaining a continuous dialogue will foster an operational understanding of the unique challenges associated with policing in a transit environment. The primary goal of these collaborative efforts is to ensure that each of the Divisions are given appropriate coverage and foster the safety of the operators.

To determine the extent to which law enforcement resources servicing the Metro System are following community policing principles we:

- Requested the Metro approved Community Policing Plan for each Contractor to determine if each Contractor:



- Created or updated the Community Policing Plan?
- Provided staff with specific training in Problem Oriented Policing to assist Metro in addressing matters related to crime and disorder?
- Attended community meetings and other events designed to foster Metro's relationship with the community?
- Have a protocol in place to obtain feedback from bus and rail managers (feedback that will be used in the overall policing strategy)?
- Determined whether each Contractor and Transit Security is using reports of Law Enforcement Service Requests (LESR) as a tool to where crime, fare evasion and other problems occur.

Metro Community Policing Plan

Finding 7: The Metro SSLE Department is in the process of developing a community policing plan for the Metro System.

The Metro Community Policing plan will be a unified plan instead of having each of the three law enforcement agencies develop individual community policing plans. The Metro Community Policing plan is part of Metro's new Equity Platform, which aims to assure equity across all programs impacting transit service, planning, and policing.

The SSLE Department will be partnering with community-based organizations to develop the new Community Policing Plan. So far, SSLE has attended 3 planning sessions facilitated by the LA Metro's Planning Department and attended by multiple community organizations.

Metro's SSLE Department and the community will jointly develop a Community Policing Plan that accomplishes three basic goals:

1. Develop a common understanding of what it means to be "safe/secure" while riding transit
2. Establish policing priorities (such as reducing/preventing crime, reducing sexual assault/harassment, and addressing homelessness)
3. Establish clear accountability measures (transparent crime reporting, commendations/compliant processes, etc.)

The SSLE Department expects to have a draft Metro Community Policing Plan completed by the Fall of 2019.



Recommendation 7: The Metro SSLE Department should continue to develop the Metro Community Policing plan and ensure it includes:

- **Specific training in Problem Oriented Policing for law enforcement personnel to assist Metro in addressing matters related to crime and disorder**
- **Attendance at community meetings and other events designed to foster Metro’s relationship with the community**
- **Protocols to obtain feedback from bus and rail managers that will be used in the overall policing strategy**

Law Enforcement Service Request (LESR) System

Metro employees, including bus and train operators, maintenance personnel, customer service representatives, and others are the front-line representatives of Metro and have ongoing and direct interaction with the riding public. As such, they are in a prime position to identify and report public safety and law enforcement issues and concerns.

Observation: LESR system implemented in FY 2018 should provide good information on safety and security issues and concerns on the system going forward.

During FY 2018, a total of 935 law enforcement service requests were generated by Metro employees. Review of the requests and responses indicate that law enforcement agencies are using the LESR to identify and resolve issues and concerns. The following Exhibit 13 shows some of the more frequent requests (fare evasion and threats to operators) made by Metro employees using the LESR system during FY 2018.

Exhibit 13 Law Enforcement Service Request System Requests for FY 2018	
Problem Identified	Number Identified
Fare Evasion	150
Threats to Operator	109
Passenger Disturbing the Peace	77
Drug Use or Sale on Bus or Train	65
Obstruction of Bus Zone	54
Drug Use or Sale on Bus or Train Terminal/Platform	42
Threats to Patrons	35
Transients at Bus Stop or Train Terminal	32
Alcohol Use at Bus Stop or Train Terminal	30



Exhibit 13 Law Enforcement Service Request System Requests for FY 2018	
Problem Identified	Number Identified
Chronic Homeless	28
Eating/Drinking on Bus or Train	25
Under the Influence in Public	23
Transients Refusing to Leave	23
Objects Thrown at Bus or Train	22
Playing Music on Bus or Train	21
Assault on Bus or Rail Operator	19
Smoking on Bus or Train	18
Assault on Patron(s)	15
Rowdy School Children	14
Gang Members	12
Alcohol Use on Bus or Train	11
Rowdy Behavior	10

The Metro SSLE Department should continue to use the Law Enforcement Service Request System to provide information on safety and security issues and concerns on the Metro System.

Transit Community Policing Training Curriculum

Each of the contracts with the three law enforcement agencies required all contracted law enforcement personnel to attend a course on Transit Policing. This course was to outline Metro's community policing approach for the Metro System. The curriculum will be developed by Metro prior to the training and cover the topics of:

- a) Overview of Metro's Organization Chart, Bus and Rail Operations
- b) Mitigating Terrorism in the Transit Environment
- c) Impact of Crime and Disorder on Transit Ridership
- d) Transit Watch App
- e) Metro's Customer Service Expectations
- f) Partnering with Metro's Security Team
- g) Fare Collection and Fare Evasion
- h) Grade Crossing Enforcement
- i) Metro Customer Code of Conduct



Observation: Metro’s Transit Community Policing Training curriculum covers the topics listed in the contracts.

Metro provided a copy of the Transit Police Training Curriculum as of December 5, 2018. Based on this document, Metro’s training curriculum covers the topics listed in the contract.

Specific information on the compliance with the contract requirement that all contracted law enforcement personnel attend this training is provided under the Personnel and Training Requirements in Section E: Compliance with Specific Contract Requirements Section of this report.

The Metro SSLE Department should continue to ensure Community Policing training is provided to contracted law enforcement personnel and update the curriculum to reflect the Metro Community Policing Plan when complete.



E. Compliance with Specific Contract Requirements

The contracts with the three law enforcement agencies each contain specific requirements related to personnel and training, billing, required reports, and other contract requirements.

Overview of Law Enforcement Contract Requirements

Each of these requirements are outlined as follows.

Personnel and Training Requirements (Section 1.2)

Section 1.2 of each contract provides specific requirements for the personnel assigned to provide service to Metro, including the training and experience of these personnel. Each of the law enforcement services contracts provides specific requirements for the personnel assigned under the contract. The following Exhibit 14 shows the personnel and training contract requirements included in each of the three law enforcement contracts.

Exhibit 14 Personnel and Training Requirements in Law Enforcement Contracts				
	Contract Requirements	LAPD	LASD	LBPD
1	Each sworn law enforcement officer/supervisor assigned to Metro must hold an active (Basic, Intermediate, Advanced or Supervisory) California POST Peace Officer's Certificate.	X	X	X
2	Command level officers must hold an active Management or Executive POST Peace Officer's Certificate.	X	NA	X
3	All supervisors and managers must have completed department training equivalent to supervisory and/or advanced POST courses.	NA	X	NA
4	Only POST certified personnel are authorized to provide law enforcement services.	X	X	X
5	Personnel must have completed their probationary period.	X	NA	X
6	Personnel must have a minimum of eighteen months of law enforcement experience.	X	NA	X



Exhibit 14 Personnel and Training Requirements in Law Enforcement Contracts				
	Contract Requirements	LAPD	LASD	LBDP
7	Personnel must have no current duty restrictions.	X	NA	X
8	All Contractor personnel must attend a Metro safety training immediately following the issuance of a Notice to Proceed. After Notice to Proceed, any new personnel of the Contractor will be required to attend this Metro safety training.	X	X	X
9	Within the first six months of assignment, all law enforcement personnel must complete a four-hour training course in Transit Policing.	X	X	X

To determine compliance with these requirements by each of the contracted law enforcement agencies, we selected 30 sworn officers assigned to LA Metro by each of the three Contractors and determined whether law enforcement personnel met the following contract requirements:

- a. Each sworn law enforcement officer/supervisor assigned to Metro hold an active California POST (Peace Officer’s Certificate).
- b. Command level officers hold an active Management or Executive POST Peace Officer’s certificates (not required for LASD).
- c. Only POST certified personnel are providing law enforcement services.
- d. Personnel assigned to the contract:
 - Completed their probationary period (not required for LASD);
 - Have a minimum of 18 months of law enforcement experience (not required for LASD);
 - Have no current duty restrictions (not required for LASD).
- e. Personnel assigned to the contract attended the Metro’s safety training within the first 6 months, and completed other training required by the contract.

Billing (Section 7.0)

Each contract for law enforcement services includes specific requirements regarding billing for services provided including providing specific supporting documentation. The



following Exhibit 15 shows the billing contract requirements included in each of the three law enforcement contracts.

Exhibit 15 Billing Requirements in Law Enforcement Contracts				
	Contract Requirements	LAPD	LASD	LBPDP
1	The Contractor's monthly invoice shall be based upon and reflect the actual services provided.	X	NA	X
2	The billings must be accompanied by supporting documentation, to include, but shall not be limited to, daily summary of assignments and hours worked and payroll records.	X	NA	X
3	Contractor shall be paid based on actual units of service performed on a daily basis, in accordance with the agreed upon deployment plan/schedule multiplied by the actual fully burdened rate of each personnel deployed in accordance with the Exhibit B of the contract.	X	NA	X
4	Exhibit B: Contractor shall submit for approval of Metro, a list of maximum fully burdened hourly rates for each labor classification as follows: <ul style="list-style-type: none"> • Sworn Field Personnel (Overtime) • Management/Field Supervisory and Administrative Personnel 	X	NA	X
5	The Contractor's monthly invoice shall be calculated as the monthly pro-rata portion of the annual firm fixed rate as specified in the applicable LASD's SH-AD 575 Deployment of Personnel Form. For each job position that did not meet the service levels promised on the Form 575, a credit shall be provided to Metro using the annual estimated cost per position per SH-AD575 divided by 12 months and number of day for the month, multiplied by number of days the position remained unfilled in whole or in part.	NA	X	NA

To determine compliance with these requirements by each of the contracted law enforcement agencies, we:



- Determined whether the total amount billed and paid during FY18 is consistent with the cost limits specified in the contract for FY18 for each contract.
- Reviewed Contractor billings for two months (April and May 2018) and determined whether:
 - Invoices are supported by documentation such as daily summary of assignments and hours worked and payroll records (not applicable for LASD).
 - Invoices were based on actual services provided.
 - Billing rates were consistent with contract terms.

Required Reports (Section 2.1)

Each of the law enforcement services contracts provides specific requirements for the reports to be provided under the contract. The following exhibit shows the contract report requirements included in each of the three law enforcement contracts.

Exhibit 16 Reporting Requirements in Law Enforcement Contracts				
	Required Reports	LAPD	LASD	LBPB
1	Weekly schedule for each watch or shift. Must include each employee's name, actual hours worked, assignment and rank.	X	X	X
2	Daily summary of work activity for each employee.	X	NA	NA
3	Watch Commander Summary of Major Events of the Day.	NA	NA	X
4	Monthly summary of crime activity, citations issued, arrests made.	X	X	X
5	Monthly summary of commendations and complaints.	X	X	X
6	The number of cases referred for follow-up investigation and the subsequent disposition.	X	X	NA



Exhibit 16 Reporting Requirements in Law Enforcement Contracts				
7	Monthly Report on the number of Part 1 crime cases referred for follow-up investigation and the subsequent disposition.	NA	NA	X
8	After-Action Reports following special operations, emphasis details and/or major incidents.	X	X	X
9	Annual Community Policing Plan.	X	X	X
10	Monthly summary of Problem-Oriented Policing projects.	X	X	X
11	Law Enforcement Sensitive Reports (distribution to Metro's CEO, DCEO, COO, Chief of Risk Safety and Asset Management and Chief of System Security and Law Enforcement).	X	X	NA
12	Executive Summary of Major Events/Incidents on the Metro System (distribution to Metro's CEO, DCEO, COO, Chief of Risk Safety and Asset Management, and Chief of System Security and Law Enforcement).	NA	NA	X

To determine compliance with these requirements by each of the contracted law enforcement agencies, we:

- Determined whether each Contractor provided Metro with the following required reports in a timely manner, with complete information, and in a format that allows Metro to determine the calculation of reported figures:
 - Weekly schedule for each watch or shift.
 - Daily summary of work activity for each employee.
 - Monthly summary of crime activity, citations issued, and arrests made.
 - Monthly summary of commendations and complaints.
 - Number of cases referred for follow-up investigation and the subsequent disposition.



- After-Action reports following special operations, emphasis details and/or major incidents.
- Annual Community Policing Plan.
- Monthly summary of Problem – Oriented Policing projects.
- Law Enforcement Sensitive Reports.
- Determined whether each Contractor provided Metro with complete and timely data to measure:
 - How assets are assigned and tracked using GPS.
 - The time/date/category/disposition of calls for service.
 - Incident response times.
 - Ratio of proactive versus dispatched activity.
 - Number of criminal citations/infractions/violations issued.
 - Number of misdemeanor and felony arrests.
 - Real Time Crime analysis data.
- Determined whether Metro has provided Contractor personnel with Mobile Phone Validators, Metro Transit Watch tools, Mobile Video Surveillance tools, and access to video feeds where possible. Evaluate whether Contractor personnel are utilizing these tools, or whether any other tools are needed.
- Evaluated whether each Contractor has the necessary tools to communicate with other police/fire agencies, investigate crimes and accidents, prepare reports, and analyze and predict crime trends. Are their methods effective and adequate?
- Reviewed the adequacy of protocols that Metro has developed with each Contractor (LAPD, LASD, and LBPD) for dispatching nonemergency service calls that are not appropriate for the 911 system.

Other Contract Requirements

Each contract for law enforcement services includes additional specific requirements. To determine compliance with these requirements by each of the contracted law enforcement agencies, we:

- Determined whether the Contractor provided the equipment in the quantities listed in Exhibit E of each contract (such as information technology, communication, and field equipment and vehicles).



- Determined whether Metro has an adequate process to verify that the Contractor provides the required equipment/vehicles (not required for LASD and LBPD).
- Evaluated threat analyses and strategies identified by each Contractor to address security threats.
- Determined whether the Contractors responded timely to requests for K9 explosive detection services.
- Determined whether the Contractors responded timely to requests for law enforcement presence during fare enforcement and passenger screening operations.
- Determined whether the Contractors adequately collaborated with social service agencies to address the impact of homelessness on the transit system.



Los Angeles Police Department (LAPD) Contract Compliance

The following sections provide information on the LAPD's compliance with contract requirements.

LAPD Personnel and Training Requirements Compliance

LAPD provided a list of 5,623 personnel names assigned to the Metro contract. Of the 5,623 names, 5,597 were sworn personnel and 26 were reserve personnel. We randomly selected 30 sworn officers' names and requested LAPD to provide documentation indicating that law enforcement personnel met the contract requirements.

Finding 8: LAPD was not in compliance with two of the contract requirements related to personnel and training:

- **Command level officers must hold an active Management or Executive POST Peace Officer's certificate.**
- **All law enforcement personnel must complete a four-hour training course in Transit Policing within the first six months of assignments.**

According to Section 1.2 of the contract, command level officers must hold an active Management or Executive POST Peace Officer's Certificate. Based on the information that LAPD provided, 4 of the selected 5 command level officers (Deputy Chief, Commander, Lieutenant 1 and Lieutenant 2) were in compliance by holding an active Management POST Peace Officer's certificate. One of the selected 5 command level officers (Captain 3) held an active Supervisory POST Peace Officer's certificate instead of the required Management or Executive POST Peace Officer's Certificate.

Also, Section 1.2 of the contract required all law enforcement personnel to complete a four-hour training course in Transit Policing within the first six months of assignments. Based on the information that LAPD provided, 1 out of 30 selected personnel did not attend this training. Twenty-nine of 30 of the selected personnel attended the Transit Policing Training (TPT) on various training dates from August 24, 2018 to March 8, 2019. According to LAPD, the one law enforcement personnel who did not attend this training within the first six months of assignment was because the training was not available. LAPD indicated that the training was made available on August 23, 2018.

Exhibit 17 on the following page summarizes the results of our review.



Exhibit 17 Los Angeles Police Department Compliance with Contract Personnel and Training Requirements			
Contract Requirements	Compliance		Comments
	Yes	No	
1. Each sworn law enforcement officer/supervisor assigned to Metro must hold an active Basic, Intermediate, Advanced or Supervisory California POST Peace Officer's Certificate.	X		
2. Command level officers must hold an active Management or Executive POST Peace Officer's certificate.		X	Captain 3 - Supervisory POST Peace Officer's certificate.
3. Only Post certified personnel are authorized to provide law enforcement services.	X		
4. Personnel assigned to the contract completed their probationary period.	X		
5. Personnel assigned to the contract have a minimum of 18 months of law enforcement experience.	X		
6. Personnel assigned to the contract have no current duty restrictions.	X		
7. Personnel assigned to the contract completed Metro's Safety Training.	X		
8. Personnel assigned to the contract completed training course in Transit Policing.		X	1 out of 30 or 3.33% of the selected personnel have not completed the Transit Policing Training.



Recommendation 8:

- A. LAPD should continue monitoring the contract requirements to ensure all personnel meet the required certification and complete the transit policing training before working on any Metro assignments.**
- B. Metro’s SSLE Department should continue monitoring the contract requirements for qualifications and training of personnel to ensure compliance.**

LAPD Billing Requirements Compliance

On March 1, 2017, Metro entered a five-year firm fixed unit rate contract with LAPD based on LAPD’s proposal dated February 21, 2017, for a not-to-exceed amount of \$369,330,499. The exhibit below summarizes the amount estimated for each year.

Exhibit 18	
Los Angeles Police Department Contract Amounts for Each Contract Year	
	<u>Amount</u>
Year 1	\$ 70,098,520
Year 2	69,495,306
Year 3	73,652,923
Year 4	76,531,010
Year 5	79,552,740
Total	<u>\$ 369,330,499</u>

Observation: The total amount billed and paid to LAPD for FY 2018 did not exceed the estimated cost specified in the contract for Year 1.

For Fiscal Year 2018 (FY 2018), the total amount billed and paid to LAPD was \$68,848,044. Thus, the total amount billed and paid for FY 2018 did not exceed the estimated cost of \$70,098,520. The exhibit below summarizes the contract amount and billing and payment amount for year 1.

Exhibit 19	
Los Angeles Police Department Contract Amount and Billing And Payment Amount for FY 2018	



Exhibit 19	
Los Angeles Police Department Contract Amount and Billing And Payment Amount for FY 2018	
	Year 1
Contract Amount	\$ 70,098,520
Billing and Payment	68,848,044
Difference	<u>\$ 1,250,476</u>

If the LAPD ever anticipates exceeding the estimated cost of the contract, they should inform Metro before incurring any costs. Metro’s SSLE Department should continue monitoring the billing, payment and contract amount to ensure that costs do not exceed the contract amount.

Finding 9: Invoices submitted to Metro were based on actual services provided and supported by daily summary of assignments and hours worked using the cost data from the payroll system. However, actual payroll records were not submitted with the invoices as required.

According to Section 7.0 of the SOW in the contract, the Contractor’s monthly invoice shall be based on actual services provided and supported by daily summary of assignments and hours worked and payroll records.

We reviewed LAPD’s billing for two invoices (invoice no. 18MTADP0411 and 18MTADP0512). Invoice No. 18MTADP0411 is for period from April 15, 2018 to May 12, 2018 in the amount of \$4,748,089.82. Invoice No. 18MTADP0512 is for the period from May 13, 2018 to June 9, 2018 in the amount of \$4,915,288.17. For each of these two invoices, LAPD submitted 19 spreadsheets detailing the daily hours and costs of each employee for each type of cost classifications and locations of the services. Per LAPD, the daily hours and costs billed for each employee were based on actual payroll data exported from their payroll system. Actual payroll records for each employee were not submitted with the invoices.

Recommendation 9:

- A. LAPD should submit the required payroll records with the monthly invoice.**
- B. Metro should continue to monitor LAPD’s billings to ensure all the required supporting documents are submitted with the invoices.**



Finding 10: For overtime charges, we were unable to determine whether the billing rates exceeded the maximum fully burdened hourly rates because LAPD's list of maximum fully burdened hourly rates was not in compliance with the contract requirements.

According to the contract, ninety (90) days prior to the start of each fiscal year, LAPD shall submit a list of maximum fully burdened hourly rates to Metro for approval. This list shall include the maximum hourly direct labor rate and overhead rate for each labor classification for straight time and overtime. Also, the contract stated that in no case shall the billing rate for each personnel exceed the maximum fully burdened rate set for each labor classification.

On November 30, 2017, LAPD submitted to Metro a list of personnel rates including the calculation of the maximum fully burdened hourly rate for each labor classification for Fiscal Year 2017-2018. We reviewed this list and noted that the maximum fully burdened hourly rate for each labor classification was not in compliance with the contract requirements as follows:

- LAPD calculated the maximum hourly direct labor rate for each labor classification using the maximum hourly direct labor rate from Fiscal Year 2016-2017 plus a 4% increase. However, the contract stated that the maximum escalation rate for base year 1 was 0%.
- LAPD did not include the maximum fully burdened hourly rates for each labor classification for overtime.

For each of the two invoices (invoice No. 18MTADP0411 and 18MTADP0512) selected for testing, we attempted to compare the hourly rates billed to the list of maximum fully burdened hourly rates that LAPD submitted to Metro on November 30, 2017. Since this list did not include the maximum fully burdened hourly rates for overtime, we were unable to determine whether the billing rates for overtime exceeded the maximum fully burdened hourly rates for each labor classification. Based on the two sample invoices, the direct labor cost for overtime was \$6,255,471.25, which is approximately 85.04% of the total direct labor costs billed.

Exhibit 20 on the following page summarizes the direct labor cost billed for straight time and overtime for the two sample invoices.



Exhibit 20				
Los Angeles Police Department Direct Labor Costs Billed				
	18MTADP0411	18MTADP0512	Total	Percentage
Direct Labor - ST	\$ 547,497.67	\$ 552,580.62	\$ 1,100,078.29	14.96%
Direct Labor - OT	3,064,640.39	3,190,830.86	6,255,471.25	85.04%
Total	<u>\$ 3,612,138.06</u>	<u>\$ 3,743,411.48</u>	<u>\$ 7,355,549.54</u>	100.00%

Recommendation 10:

- A. LAPD should submit the list of maximum fully burdened hourly rates for each labor classification for overtime in accordance with the contract requirements. Also, the escalation rate included in the calculation of the maximum fully burdened hourly rates should not exceed the maximum escalation rate stipulated in the contract.**
- B. Metro’s SSLE Department should work with LAPD to ensure that the list of maximum fully burdened hourly rates comply with the contract requirements. Metro should also review the billing rates for overtime for all invoices to determine the extent of overbillings for FY 2018.**

Finding 11: Eight labor classifications on two invoices were not found in the required list of maximum fully burdened hourly rates. The amount billed for these labor classifications totaled \$281,400.77.

As mentioned previously, according to the contract, LAPD shall submit a list of maximum fully burdened hourly rates to Metro for approval that includes the maximum hourly direct labor rate and overhead rate for each labor classification for straight time and overtime. Also, the contract stated that in no case shall the billing rate for each personnel exceed the maximum fully burdened rate set for each labor classification.

For each of the two invoices (invoice No. 18MTADP0411 and 18MTADP0512) selected for testing, we compared the hourly rates billed to the list of maximum fully burdened hourly rates that LAPD submitted to Metro on November 30, 2017. Based on our review, eight labor classifications were not found in the required list of maximum fully burdened hourly rates. The total amount billed for these eight labor classifications was \$281,400.77.

Exhibit 21 below summarizes the amount billed for the classifications not found in the required list of maximum fully burdened hourly rates.



Exhibit 21 Los Angeles Police Department Amount Billed for Each Labor Classification Not found in the List of Maximum Fully Burdened Hourly Rates			
Class CD	18MTADP0411	18MTADP0512	Total
1223-0	\$ 3,137.30	\$ 2,012.72	\$ 5,150.02
2207-1	330.04	165.02	\$ 495.06
2207-2	29,848.31	28,697.89	\$ 58,546.20
2207-3	62,083.82	60,710.96	\$ 122,794.78
2209-1	1,502.24	1,614.84	\$ 3,117.08
2214-C	2,863.81	1,204.52	\$ 4,068.33
3711-5	18,614.40	33,036.84	\$ 51,651.24
9184-0	8,189.59	27,388.47	\$ 35,578.06
Total	<u>\$ 126,569.51</u>	<u>\$ 154,831.26</u>	<u>\$ 281,400.77</u>

Recommendation 11:

- A. LAPD should submit the list of maximum fully burdened hourly rates for all labor classifications in accordance with the contract requirements. For any additional labor classifications not identified in the list of maximum fully burdened hourly rate, LAPD should submit a revised list to Metro for approval prior to incurring the cost.**
- B. Metro’s SSLE Department should continue to monitor LAPD’s billings to ensure only the approved labor classifications are billed and included in the list of maximum fully burdened hourly rates. Metro should also review the billing rates for straight time for all invoices to determine the extent of overbillings.**

Finding 12: We identified a total amount of \$3,874.99 as overbilled and overpaid to LAPD.

For each of the two invoices (invoice No. 18MTADP0411 and 18MTADP0512) selected for testing, we compared the hourly rates billed to the approved list of maximum fully burdened hourly rates that LAPD submitted to Metro on November 30, 2017. We found that that the fully burdened hourly rate that LAPD billed for straight time exceeded the maximum fully burdened hourly rate for five labor classifications. Also, we noted that



there are costs billed for classifications showing zero labor hours. We identified a total amount of \$3,874.99 as overbilled and overpaid to LAPD.

The exhibit below summarizes the overbilled and overpaid amount for the labor classification with rate differences and zero hours.

Exhibit 22					
Los Angeles Police Department Overbilled and Overpaid Amount due to Labor Classification With Rate Difference And Zero Hours					
CSC/G	Billed Rate	Maximum Rate	Rate Difference	Hour	Overbilled/Overpaid Amount
<i>invoice no. 18MTADP0411</i>					
22443	\$243.20	\$ 243.07	\$ 0.13	160	\$ 20.80
22510	\$271.06	\$ 270.93	\$ 0.13	160	\$ 20.80
22621	\$311.72	\$ 311.56	\$ 0.16	160	\$ 25.60
Various				0	\$ 1,781.16
				Subtotal	\$ 1,848.36
<i>invoice no. 18MTADP0512</i>					
11160	\$ 68.58	\$ 63.88	\$ 4.70	4	\$ 18.80
11172	\$ 82.54	\$ 80.97	\$ 1.57	4	\$ 6.28
22443	\$243.20	\$ 243.07	\$ 0.13	160	\$ 20.80
22510	\$271.06	\$ 270.93	\$ 0.13	160	\$ 20.80
22621	\$311.72	\$ 311.56	\$ 0.16	160	\$ 25.60
Various				0	\$ 1,934.34
				Subtotal	\$ 2,026.62
				Total	\$ 3,874.99

Recommendation 12:

- A. LAPD should return the overbilled and overpaid amount of \$3,874.99 to Metro.**
- B. Metro’s SSLE Department should continue monitoring LAPD’s billings to identify and resolve billing discrepancies.**

Finding 13: LAPD invoiced an overhead rate of 12.76% for overtime hours that was unsupported by adequate documentation.

For straight time indirect cost overhead, LAPD billed Metro using CAP 38 rates of 77.48% for civilian and 157% for sworn personnel. For overtime indirect cost overhead, LAPD billed 12.76% for sworn field personnel. A copy of Memorandum No. 17-016 dated



August 30, 2017 was provided to support the Federal Government’s approved Cost Allocation Plan (CAP) 38 indirect cost rates of 77.48% and 157%.

According to the instructions for CAP 38, these rates are to be applied only to straight time for full time gross salaries. For rates applicable to part time or overtime salaries, LAPD needs to contact the CAP staff. No documentation was provided to support the overtime overhead rate of 12.76%. The overtime overhead rate of 12.76% was not included in the list of maximum fully burdened hourly rates that LAPD submitted to Metro on November 30, 2017.

The exhibit below summarizes the amount billed for overtime indirect cost overhead for the two invoices selected for testing.

Exhibit 23				
Los Angeles Police Department Amount Billed for Overtime Indirect Cost Overhead				
	<i>Invoice No.</i>	18MTADP0411	18MTADP0512	Total
<i>Sworn Field Personnel (Overtime)</i>				
Direct Labor (Q53)		\$ 2,837,742.25	\$ 2,902,159.77	\$ 5,739,902.02
Overhead Rate	12.76%	362,095.91	370,315.59	732,411.50
Total		<u>\$ 3,199,838.16</u>	<u>\$ 3,272,475.36</u>	<u>\$ 6,472,313.52</u>

Recommendation 13:

- A. LAPD should submit the prevailing Cost Allocation Plan (CAP) rate together with the list of maximum fully burdened hourly rates for overtime.**
- B. Metro’s SSLE Department should continue to monitor LAPD’s billings to ensure the overtime overhead rate billed was based on the CAP overhead rate approved by the Federal Government in effect at the time the work was performed.**

LAPD Compliance with Required Reports

We requested Metro to provide the reports with date received showing that LAPD submitted the required reports in a timely manner, with adequate information, and in a format that allows Metro to determine the calculation of reported figures.



Finding 14: LAPD met 8 out of 9 contract requirements for submitting required reports to Metro. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. However, no information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted on time in accordance with the contract.

Metro provided various reports including Watch Commander’s Daily Reports for April 10, 2018 and May 17, 2018, Weekly After-Action Reports for April 2018 and May 2018, Work Summary Report for April 2018 and May 2018, Strategic Plan for 2017-2019, and KPI Reports for April 2018 and May 2018. No information was provided as to when these reports were submitted to Metro.

We reviewed all the reports provided and found that LAPD met 8 out of the 9 contract requirement for required reports. These eight reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. The month summary of Problem-Oriented Policing projects was not provided.

Exhibit 24 below summarizes the required reports and the results of our review.

Exhibit 24 Los Angeles Police Department Compliance with Contract Reporting Requirements			
	Required Reports	Compliance	Comments
1	Weekly schedule for each watch or shift. Must include each employee’s name, actual hours worked, assignment and rank.	Yes	Daily schedule for each watch was included in the submission of Watch Commander’s Daily Report, not weekly. Daily Worksheet Portrait included each employee’s name, actual hours worked, assignment and rank.
2	Daily summary of work activity for each employee.	Yes	Daily Activity Log included employee name, work date, start time, end time and work hours.
3	Monthly summary of crime activity, citations issued, arrests made.	Yes	



Exhibit 24 Los Angeles Police Department Compliance with Contract Reporting Requirements			
4	Monthly summary of commendations and complaints.	Yes	
5	The number of cases referred for follow-up investigation and the subsequent disposition.	Yes	TSB Significant Arrests.
6	After-Action Reports following special operations, emphasis details and/or major incidents.	Yes	Weekly After-Action Report.
7	Annual Community Policing Plan.	Yes	Strategic Plan for fiscal years 2017-2019.
8	Monthly summary of Problem-Oriented Policing projects.	No	No information provided.
9	Law Enforcement Sensitive Reports (distribution to Metro's CEO, DCEO, COO, Chief of Risk Safety and Asset Management and Chief of System Security and Law Enforcement)	Yes	This report refers to "after action reports and intelligence briefings". Chief of System Security and Law Enforcement confirming that he has access to the information but no copies were provided.

Recommendation 14:

- A. LAPD should submit to Metro in a timely manner the monthly Summary of Problem-Oriented Policing projects.**
- B. Metro's SSLE Department should continue to monitor LAPD's submission of reports and stamp the date received on reports to ensure all the required reports are submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures.**



LAPD Equipment Requirements Contract Compliance

Section 5.0 of the contract required LAPD to provide the equipment as listed in Exhibit E. There are four categories listed in the Exhibit E. The four categories listed below are the property that LAPD is required to provide. Each category listed out the items needed.

- A. Information Technology (IT) Equipment
- B. Communication Equipment
- C. Vehicles
- D. Field Equipment

Finding 15: LAPD did not provide the equipment in the quantities listed in Exhibit E of the contract.

- **Metro does not have an adequate process to verify that LAPD provides the required equipment and vehicles.**
- **Computers provided by LAPD are not listed in the Exhibit E of the contract.**
- **The Vehicles provided by LAPD are not consistent with the quantity listed in the Exhibit E of the contract.**

According to Metro, the equipment and vehicles provided by LAPD has been tracked on Excel spreadsheets. Metro provided one spreadsheet of a list of computers with Metro tag numbers and another spreadsheet for shop inventory. We compared the items and quantities listed in these two spreadsheets to Exhibit E.

We found that the computers that LAPD provided were not listed in Exhibit E. For vehicles, we found that the quantities provided did not agree with the quantities listed in Exhibit E. No data was provided for IT equipment, communication equipment, and field equipment. Thus, we determined that Metro does not have an adequate process to verify that LAPD provided the required equipment and vehicles.

Based on the list of computers with Metro tag numbers, LAPD provided 135 computers. Of the 135 computers, 126 computers had the asset tag number, Metro tag number, serial number, make, and model. Nine (9) of the 135 computers had only the asset tag number and Metro tag number. We attempted to compare the computer and quantity listed in the spreadsheet to Exhibit E. We found that the computers provided were not listed in Exhibit E of the contract.

Based on the list of shop inventory that Metro provided, we found that LAPD did not provide the vehicles in the quantities listed in Exhibit E of the contract. Exhibit 25 on the following page summarizes the required quantities compared to the quantities provided.



Exhibit 25
Los Angeles Police Department
Comparison of Contracted and Provided Equipment

Vehicles Item	Quantity Per Contract	Quantity Provided by LAPD	Difference
1. BW-MFF	21		
2. BW-Patrol	48		
Subtotal - BW	69	60	9
3. Dual Purpose	6	9	-3
4. Motor Pool	5	No Data	
5. Plain (un-marked)	1	6	-5
6. Undercover	3	No Data	

Recommendation 15:

- A. LAPD should provide the equipment in the quantities listed in Exhibit E of the contract or Metro should amend Exhibit E of the contract.**
- B. Metro’s SSLE Department should continue to monitor LAPD’s equipment to ensure the quantities listed in Exhibit E of the contract are properly provided and in a timely manner.**

Other Contract Areas

LAPD was responsive and supportive in evaluating and developing strategies to address security threats, requests for K9 explosive detection services, requests for law enforcement presence during fare enforcement and passenger screening operations, and in addressing the impact of homelessness on the transit system based on discussions with Metro’s SSLE Department.



Los Angeles County Sheriff's Department (LASD) Contract Compliance

The following sections provide information on the LASD's compliance with contract requirements.

LASD Compliance with Personnel and Training Requirements

LASD provided a list of 228 sworn officers' names assigned to Metro. We randomly selected 30 sworn officers' names and requested LASD to provide documentation indicating that law enforcement personnel met the contract requirements.

Finding 16: LASD was not in compliance with two of the contract requirements related to personnel and training:

- All Personnel must attend a Metro's Safety Training immediately following the issuance of a Notice to Proceed.
- All law enforcement personnel must complete a four-hour training course in Transit Policing within the first six months of assignments.

According to LASD, 27 of the 30 personnel selected had attended the Metro's safety training course, and 3 deputies did not complete this training. For the Transit Policing Training, 6 of the 30 or 20% of the personnel selected have not attended the Metro Transit Policing training. These personnel did not attend the safety training and Transit Policing training because they either have not yet started working at Transit Services Bureau or have been off work for an extended time. Twenty-four out of 30 or 80% of the selected personnel attended the Transit Policing Training on various training dates from September 14, 2018 to March 5, 2019. According to LASD, the law enforcement personnel did not attend this training within the first six months of assignments because the training was not yet available. However, LASD indicated that the training was made available on February 18, 2018.

Exhibit 26 below summarizes the results of our review.

Exhibit 26 Los Angeles Sheriff's Department Compliance with Contract Personnel and Training Requirements			
Contract Requirements	Compliance		Comments
	Yes	No	
1. Each sworn law enforcement officer/supervisor assigned to Metro hold an active California POST	X		



Exhibit 26 Los Angeles Sheriff's Department Compliance with Contract Personnel and Training Requirements			
Contract Requirements	Compliance		Comments
	Yes	No	
(Peace Officer's Certificate).			
2. All supervisors and managers must have completed department training equivalent to supervisory and/or advanced POST courses.	X		All sergeants and lieutenants selected have Advanced POST certificates.
3. Only POST certified personnel are authorized to provide law enforcement services.	X		
4. Personnel assigned to the contract completed Metro's Safety Training.		X	3 out of 30 or 10% of the selected personnel had not completed the Safety Training.
5. Personnel assigned to the contract completed training course in Transit Policing.		X	6 out of 30 or 20% of the selected personnel had not completed the Transit Policing Training.

Recommendation 16:

- A. LASD should continue monitoring the contract requirements to ensure all personnel complete the safety training and transit policing training before working on any Metro assignments.**
- B. Metro's SSLE Department should continue monitoring the contract requirements for qualifications and training of personnel to ensure compliance with the contract.**

LASD Compliance with Billing Requirements

On September 1, 2017, Metro entered into a five-year firm fixed unit rate contract with LASD for a not-to-exceed amount of \$246,270,631. There is no detailed breakdown in



the contract for the not to exceed amount of \$246,270,631. However, the estimated cost for year 1 (FY 2018) was \$41,586,561.

Observation: The total amount billed and paid for FY 2018 to LASD did not exceed the estimated cost specified in the contract for Year 1.

For FY 2018, the total amount billed and paid to LASD was \$41,114,094. Thus, the total amount billed and paid for FY 2018 did not exceed the estimated cost of \$41,586,561. The exhibit below summarizes the contract amount and billing and payment amount for year 1.

Exhibit 27	
Los Angeles Sheriff’s Department Contract Amount and Billing And Payment Amount For FY 2018	
	<u>Year 1</u>
Contract Amount	\$ 41,586,561
Billing and Payment	<u>41,114,094</u>
Difference	<u>\$ 472,467</u>

If LASD ever anticipates that they may exceed the estimated cost in the contract, they should inform Metro in a timely manner before incurring any cost. Metro’s SSLE Department should continue monitoring the billing, payment and contract amount to ensure that costs do not exceed the contract amount.

Observation: Except for the credit amount understatement of \$1,699.68 (discussed in the next section), the billing rates were in compliance with Metro’s approved rates. Invoices were based on actual services provided and supported by Payment Certification, the Service Level and Billing Status Reports, and the Patrol Compliance Reports.

According to Section 7.0 of the Statement of Work in the contract, the Contractor’s monthly invoice shall be calculated as the monthly pro-rata portion of the annual firm fixed rate as specified in the applicable LASD’s SH-AD 575 Deployment of Personnel Form.

We reviewed LASD’s billing for two invoices (April 2018 and May 2018). The April invoice was for the period April 1, 2018 to April 30, 2018. The May invoice was for the period May 1, 2018 to May 31, 2018. For each of these two invoices, we compared the annual and monthly rates billed to the annual firm fixed rate specified in the contract. We found that the annual rate and monthly rate for each level of services were properly computed in accordance with the contract requirement. Invoices were based on actual services and



supported by payment certification, service level and billing status reports and patrol compliance reports.

Metro's SSLE Department should continue monitoring LASD's billings to ensure the billing rates and supporting documents are in compliance with the contract.

Finding 17: The billing rate for the credit amount was not in compliance with Metro's approved rate.

For the month of May, a credit amount of \$149,701.16 was included in the invoice to refund Metro for the overbilling of two positions, Team Leader and Access Services Investigator. This overbilling was discovered when LASD's Contract Law Enforcement Bureau completed its internal audit and discovered that LASD overbilled Metro for a Team Leader position for 7 months and an Access Services Investigator for 4 months due to the key overhead positions being unfilled and the job duties for these positions were not completed. The credit amount was calculated using the monthly rate of \$12,551.96 for Team Leader and \$15,459.36 for Access Services Investigator. These monthly rates were determined by reducing personnel in the Transit Cost Model to determine the overhead monthly salaries for each of these positions.

We found that the monthly rates used for the calculation of the credit amount were not in compliance with the contract. According to the contract, for each job position that did not meet the service levels promised on the Form 575, a credit shall be provided to Metro using the annual estimated cost per position per SH-AD575 divided by 12 months and number of days for the month, multiplied by the number of days the position remained unfilled in whole or in part. For the Access Services Investigator, the annual estimated cost per SH-AD575 was \$190,611.35 divided by 12 months would be \$15,884.28 per month. Thus, the credit amount in the May invoice was understated by \$1,699.68. There was no annual estimated cost for the Team Leader position in the SH-AD575.

Exhibit 28 on the following page summarizes the calculation of the rate difference and cost difference for the Access Services Investigator.



Exhibit 28	
Los Angeles Sheriff's Department Rate and Cost Differences For Access Services Investigator	
Description	Amount
Monthly Rate (May Invoice)	\$ 15,459.36
Monthly Rate (SH-AD575)	\$ 15,884.28
Rate Difference	\$ (424.92)
No. of Month	4
Cost Difference	<u>\$ (1,699.68)</u>

Recommendation 17:

- A. LASD should issue an additional credit amount of \$1,699.68 to Metro.**
- B. Metro's SSLE Department should continue monitoring LASD's billings to ensure each job position meets the service levels promised on Form 575 and the billing rates are in compliance with the contract.**

LASD Compliance with Reporting Requirements

We requested Metro to provide the reports with the date received showing that LASD submitted the required reports in a timely manner, with adequate information, and in a format that allows Metro to determine the calculation of reported figures.

Finding 18: LASD met 7 out of 8 contract requirements for required reports. The reports were submitted in a timely manner, with adequate information, and in a format that allows Metro to determine the calculation of the reported figures.

Metro provided various email submissions from LASD including attachments of KPI data and monthly reporting requirements for July 2017 to June 2018. Daily Report, AM Scheduling, PM Scheduling and EM (night shift) Scheduling were also provided for April 8, 2018. We reviewed all the emails and reports provided and found that LASD met 7 out of the 8 contract requirement for required reports. These reports were submitted in a timely manner with adequate information and in a format that allows Metro to determine the calculation of the reported figures. LASD did not submit a report for the number of cases referred for follow-up investigation and the subsequent disposition.

Exhibit 29 on the following page summarizes the required reports and the results of our review.



Exhibit 29			
Los Angeles Sheriff's Department Compliance with Contract Reporting Requirements			
	Required Reports	Compliance	Comments
1	Weekly schedule for each watch or shift. Must include each employee's name, actual hours worked, assignment and rank.	Yes	Daily schedules for each shift (AM, PM, and EM reports) were submitted to Metro. These reports showed each employee's name, actual hours worked, assignment and rank.
2	Monthly summary of crime activity, citations issued, arrests made.	Yes	
3	Monthly summary of commendations and complaints.	Yes	
4	The number of cases referred for follow-up investigation and the subsequent disposition.	No	Per LASD, they had been requesting for clarification from Metro on the item but received no response.
5	After-Action Reports following special operations, emphasis details and/or major incidents.	Yes	
6	Annual Community Policing Plan.	Yes	LASD did not submit the Annual Community Policing Plan. However, LASD indicated that they participated in the completion of the Annual Community Policing Plan with LAPD, LBPB, and Metro.
7	Monthly summary of Problem-Oriented Policing projects.	Yes	



Exhibit 29 Los Angeles Sheriff's Department Compliance with Contract Reporting Requirements		
8	Law Enforcement Sensitive Reports (distribution to Metro's CEO, DCEO, COO, Chief of Risk Safety and Asset Management and Chief of System Security and Law Enforcement).	<p style="text-align: center;">Yes</p> <p>This report refers to "after action reports and intelligence briefings". Chief of System Security and Law Enforcement confirming that he has access to the information but no copies were provided.</p>

Recommendation 18:

- A. LASD should submit to Metro in a timely manner the report for the number of cases referred for follow-up investigation and the subsequent disposition.**
- B. Metro's SSLE Department should work with LASD to resolve any issues regarding the required reports. Also, Metro should continue monitoring LASD's submission of reports to ensure all the required reports were submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures.**

Other contract Areas

LASD was responsive and supportive in evaluating and developing strategies to address security threats, requests for K9 explosive detection services, requests for law enforcement presence during fare enforcement and passenger screening operations, and in addressing the impact of homelessness on the transit system based on discussions with Metro's SSLE Department.



Long Beach Police Department (LBPD) Contract Compliance

The following sections provide information on the LBPD’s compliance with contract requirements.

LBPD Compliance with Personnel and Training Requirements

LBPD provided a list of 480 sworn officers’ names assigned to Metro. We randomly selected 30 sworn officers’ names and requested LBPD to provide documentation indicating that law enforcement personnel met the contract requirements.

Finding 19: LBPD was not in compliance with the contract requirement for Transit Policing Training.

According to Section 1.2 of the contract, all law enforcement personnel must complete a four-hour training course in Transit Policing within the first six months of assignment. Based on the information provided by LBPD, 1 out of 30 of the selected personnel had not completed this training. Twenty-nine out of 30 of the selected personnel attended the Transit Policing Training on various training dates from August 10, 2018 to February 28, 2019. According to LBPD, the law enforcement personnel did not attend this training within the first six months of assignments because the training was not yet available. LBPD indicated that the training was made available on February 16, 2018.

Exhibit 30 below summarizes the results of our review.

Exhibit 30 Long Beach Police Department Compliance with Contract Personnel and Training Requirements			
Contract Requirements	Compliance		Comments
	Yes	No	
1. Each sworn law enforcement officer/supervisor assigned to Metro hold an active California POST (Peace Officer’s Certificate).	X		
2. Command level officers hold an active Management or Executive POST Peace Officer’s certificates.	X		The following command level officers hold an active Management POST Peace Officer’s certificates: Deputy Chief, Commander, and Lieutenant.



Exhibit 30 Long Beach Police Department Compliance with Contract Personnel and Training Requirements			
Contract Requirements	Compliance		Comments
	Yes	No	
3. Only Post certified personnel are authorized to provide law enforcement services.	X		
4. Personnel assigned to the contract completed their probationary period.	X		
5. Personnel assigned to the contract have a minimum of 18 months of law enforcement experience.	X		
6. Personnel assigned to the contract have no current duty restrictions.	X		1 out of 30 selected personnel had current duty restriction. Per LBPDP, this Officer had no duty restriction when he worked Metro overtime.
7. Personnel assigned to the contract completed Metro's Safety Training.	X		
8. Personnel assigned to the contract completed training course in Transit Policing.		X	1 out of 30 or 3.33% of the selected personnel had not completed this training.

Recommendation 19:

- A. LBPDP should ensure all personnel have completed the transit policing training before working on any Metro assignments.**



B. Metro’s SSLE Department should monitor the contract requirements for qualifications and training of personnel to ensure compliance.

LBPD Compliance with Billing Requirements

On March 23, 2017, Metro entered into a five-year firm fixed unit rate contract with LBPD for a not-to-exceed amount of \$30,074,628. The exhibit below summarizes the amount estimated for each year.

Exhibit 31	
Long Beach Police Department Contract Amount Proposed for Each Contract Year	
	<u>Amount</u>
Year 1	\$ 5,459,271
Year 2	5,517,674
Year 3	5,959,087
Year 4	6,316,633
Year 5	6,821,963
Total	<u>\$ 30,074,628</u>

Finding 20: The total amount billed and paid for FY 2018 exceeded the estimated cost specified in the contract for Year 1.

For FY 2018, the total amount billed and paid to LBPD was \$6,344,849. Thus, the total amount billed and paid for FY 2018 exceeded the estimated cost in the contract of \$5,459,271 by \$885,578 for Year 1, see exhibit below for details.

Exhibit 32	
Long Beach Police Department Difference Between Contract Amount and Amount Billed and Paid for FY 2018	
	<u>Year 1</u>
Contract Amount	\$ 5,459,271
Billing and Payment	<u>6,344,849</u>
Difference	<u>\$ (885,578)</u>



Recommendation 20:

- A. LBPD should inform Metro of the amount expected to exceed the estimated cost specified in the contract for each year before incurring the costs.**
- B. Metro's SSLE Department should continue monitoring LBPD's billings, payments and contract amount to ensure that costs do not exceed the contract amount.**

Finding 21: Invoices were based on actual services provided and supported by bi-weekly Work Hour Detail Schedules and partial Daily Metro Cost schedules along with Regular Overtime Reports and Employee Time Records. Daily summary of assignments for all hours worked and payroll records were not submitted with the invoices.

According to Section 7.0 of the Statement of Work in the contract, the Contractor's monthly invoice shall be based on actual services under the terms of the contract. The billings must be accompanied by supporting documentation, to include but shall not be limited to, daily summary of assignments and hours worked and payroll records.

We reviewed LBPD's billing for two invoices (April 2018 and May 2018). The April invoice was for two pay periods ending March 30, 2018 and April 13, 2018 in the amount of \$471,008.58. The May invoice was for two pay periods ending April 27, 2018 and May 11, 2018 in the amount of \$467,869.88. For each of these two invoices, LBPD submitted a Work Hour Detail schedule by pay period. Daily summary of assignments for all hours worked and payroll records were not submitted with the invoices.

The exhibit below summarizes the costs billed for April 2018 and May 2018.



Exhibit 33 Long Beach Police Department Costs Billed for April 2018 and May 2018		
Description	April 2018	May 2018
Personnel Cost		
Operational	\$ 319,236.48	\$ 317,264.34
Administrative	42,229.54	46,016.64
Total Before Indirect Cost Overhead	361,466.02	363,280.98
Indirect Cost Overhead - 25%	90,366.51	90,820.25
Total Personnel Cost	451,832.53	454,101.23
Equipment Cost	15,340.84	11,014.92
Indirect Cost Overhead - 25%	3,835.21	2,753.73
Total Equipment Cost	19,176.05	13,768.65
Total Amount Billed	\$471,008.58	\$467,869.88

Recommendation 21:

- A. LBPDP should submit the daily summary of assignments for all hours worked and payroll records with the invoices.**
- B. Metro’s SSLE Department should continue monitoring LBPDP’s billings to ensure all the required supporting documents were submitted with the invoices.**

Finding 22: We identified a total amount of \$14,643.89 as overbilled and overpaid to LBPDP.

On August 28, 2017, Metro’s Contract Administration Manager sent an email to LBPDP for the revised schedule of approved Maximum Fully Burdened Rate for Fiscal Year 2017/2018. This schedule listed the maximum hourly direct labor rate, indirect overhead rate of 25% and administrative overhead rate of 9.6% for each labor category. According to the email, invoices shall be billed based on the actual hourly direct labor rate of each personnel plus the applicable indirect overhead rate and administrative overhead rate. In no instance shall the fully burdened hourly rate for



each personnel exceed the maximum fully burdened hourly rate approved for each labor category.

For each of the two invoices (April 2018 and May 2018) that we selected for testing, we compared the hourly rates billed to the list of maximum fully burdened rates that Metro approved on August 28, 2017. We found that that the fully burdened hourly rate that LBPB billed to Metro exceeded the approved maximum fully burdened hourly rate for three labor categories (Lieutenant, Officer, and Sergeant). In addition, we found one labor category (Police Corporal) that LBPB billed was not listed in the approved maximum fully burdened hourly rate. We identified a total amount of \$14,643.89 as overbilled and overpaid to LBPB.

The exhibit below summarizes the labor category with the hourly rate and cost difference.

Exhibit 34 Long Beach Police Department Labor Categories with Hourly Rate and Cost Differences									
Pay Period	Category	Billed Hours (a)	Billed Labor Cost (b)	Overhead Rate 25% (c)	Billed Total Cost (d=b+c)	Calculated Hourly Rate (e=d/a)	Maximum Fully Burdened Rate (f)	Rate Difference (g=e-f)	Overbilled/Overpaid (g*a)
3/30/2018	Corporal	20.00	\$ 1,931.40	\$ 482.85	\$ 2,414.25	\$ 120.71	None	\$ 120.71	\$ 2,414.25
4/13/2018	Corporal	10.00	\$ 917.73	\$ 229.43	\$ 1,147.16	\$ 114.72	None	\$ 114.72	\$ 1,147.16
3/30/2018	Lieutenant	53.00	\$ 7,650.76	\$ 1,912.69	\$ 9,563.45	\$ 180.44	\$ 178.84	\$ 1.60	\$ 84.93
4/13/2018	Lieutenant	75.00	\$ 10,762.90	\$ 2,690.73	\$ 13,453.63	\$ 179.38	\$ 178.84	\$ 0.54	\$ 40.62
4/13/2018	Officer	97.50	\$ 9,742.58	\$ 2,435.65	\$ 12,178.23	\$ 124.90	\$ 124.05	\$ 0.85	\$ 83.35
3/30/2018	Sergeant	85.00	\$ 10,705.24	\$ 2,676.31	\$ 13,381.55	\$ 157.43	\$ 155.74	\$ 1.69	\$ 143.65
4/13/2018	Sergeant	50.00	\$ 7,064.01	\$ 1,766.00	\$ 8,830.01	\$ 176.60	\$ 155.74	\$ 20.86	\$ 1,043.01
Subtotal - April Invoice									4,956.98
4/27/2018	Corporal	25.00	\$ 1,833.87	\$ 458.47	\$ 2,292.34	\$ 91.69	None	\$ 91.69	\$ 2,292.34
4/27/2018	Corporal	20.00	\$ 1,929.13	\$ 482.28	\$ 2,411.41	\$ 120.57	None	\$ 120.57	\$ 2,411.41
5/11/2018	Corporal	10.00	\$ 964.53	\$ 241.13	\$ 1,205.66	\$ 120.57	None	\$ 120.57	\$ 1,205.66
4/27/2018	Officer	48.00	\$ 5,420.00	\$ 1,355.00	\$ 6,775.00	\$ 141.15	\$ 124.05	\$ 17.10	\$ 820.60
4/27/2018	Officer	24.00	\$ 3,641.32	\$ 910.33	\$ 4,551.65	\$ 189.65	\$ 124.05	\$ 65.60	\$ 1,574.45
5/11/2018	Officer	77.50	\$ 7,839.09	\$ 1,959.77	\$ 9,798.86	\$ 126.44	\$ 124.05	\$ 2.39	\$ 184.99
4/27/2018	Sergeant	60.00	\$ 8,073.21	\$ 2,018.30	\$ 10,091.51	\$ 168.19	\$ 155.74	\$ 12.45	\$ 747.11
5/11/2018	Sergeant	70.00	\$ 9,081.72	\$ 2,270.43	\$ 11,352.15	\$ 162.17	\$ 155.74	\$ 6.43	\$ 450.35
Subtotal - May Invoice									\$ 9,686.91
Total - April and May Invoices									<u>\$ 14,643.89</u>

Recommendation 22:

- A. LBPB should return to Metro the overbilled and overpaid amount of \$14,643.89.**



B. Metro’s SSLE Department should continue to monitor LBPD’s billings to ensure only the approved labor classifications are billed and included in the list of maximum fully burdened hourly rates. Metro should also review the billing rates for all invoices to determine the extent of overbilling for FY2018.

Finding 23: The billing methodology for equipment cost was not in compliance with the contract agreement.

For April 2018 and May 2018 invoices, LBPB billed the costs for supplies and equipment, fleet, and technology services as equipment cost using monthly actuals plus an additional 25% of the actual cost as indirect cost overhead. This methodology was not in compliance with the contract. According to Section CP-01 of the contract, cost of vehicles, equipment, supplies including uniforms and other items needed by law enforcement personnel in the performance of the Statement of Work should be included in the maximum fully burdened hourly rate as equipment/supplies overhead cost. Equipment/supplies overhead cost shall be computed using an hourly direct labor rate plus indirect overhead cost times equipment/supplies overhead rate. Since LBPB used a different billing methodology than the methodology required by the contract, LBPB billed Metro \$21,571.99 less than if the contract method had been used.

The exhibit below summarizes the cost impact using LBPB’s billing methodology vs. contract required billing methodology for equipment cost for April 2018 and May 2018 invoices.

Exhibit 35 Long Beach Police Department Cost Impact for Equipment Cost for April 2018 and May 2018			
Description	April 2018	May 2018	Total
Amount billed by LBPB for personnel cost and equipment cost (a)	\$471,008.58	\$467,869.88	\$938,878.46
Amount calculated using the contract required methodology (b)	\$481,625.24	\$478,825.20	\$960,450.45
Difference (a-b)	<u>\$ (10,616.66)</u>	<u>\$ (10,955.32)</u>	<u>\$ (21,571.99)</u>



Recommendation 23: Metro’s SSLE Department should review the billing methodology specified in the contract for equipment cost and determine whether the contract should be amended.

LBPB Compliance with Contract Reporting Requirements

We requested Metro to provide the reports with the date received showing that LAPD submitted the required reports in a timely manner, with adequate information, and in a format that allows Metro to determine the calculation of reported figures.

Finding 24: LBPB met 8 out of 9 contract requirements for required reports. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. No information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted to Metro on time.

Metro provided various reports including monthly summary schedules and weekly deployment summary for July 2017 to June 2018. Weekly deployment summary and daily summary were also provided with the billings for April 2018 and May 2018. No information was provided as to when the monthly reports were submitted to Metro. We reviewed all the reports provided and found that LBPB met 8 out of the 9 contract requirement for required reports. These reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. LBPB did not submit the after action reports following special operations, emphasis details and/or major incidents because of on-going litigation.

Exhibit 36 below summarizes the required reports and the results of our review.

Exhibit 36 Long Beach Police Department Compliance with Contract Reporting Requirements			
	Required Reports	Compliance	Comments
1	Weekly schedule for each watch or shift. Must include each employee’s name, badge number, actual hours worked, assignment and rank.	Yes	Weekly Deployment Summary included each employee’s name, badge number, actual hours worked, assignment and rank.
2	Watch Commander Summary of Major Events of the Day.	Yes	Daily Summary included significant events of the day.



Exhibit 36 Long Beach Police Department Compliance with Contract Reporting Requirements			
	Required Reports	Compliance	Comments
3	Monthly summary of crime activity, citations issued, arrests made.	Yes	
4	Monthly summary of commendations and complaints.	Yes	
5	Monthly Report on the number of Part 1 crime cases referred for follow-up investigation and the subsequent disposition.	Yes	
6	After-Action Reports following special operations, emphasis details and/or major incidents.	No	Reports not provided. Per LBPD, major incident after action reports cannot be provided because of an on-going litigation.
7	Annual Community Policing Plan.	Yes	No Annual Community Policing Plan. Per LBPD, Metro SSLE Department developed a joint community policing plan.
8	Monthly summary of Problem-Oriented Policing projects.	Yes	
9	Executive Summary of Major Events/Incidents on the Metro System (distribution to Metro's CEO, DCEO, COO, Chief of Risk Safety and Asset Management and Chief of System Security and Law Enforcement).	Yes	This report refers to "after action reports and intelligence briefings". Chief of System Security and Law Enforcement confirmed that he has access to the information but no copies were provided.



Recommendation 24: Metro's SSLE Department should continue monitoring LBPD's submission of reports to ensure all the required reports are submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures.

Other Contract Areas

LBPD was responsive and supportive in evaluating and developing strategies to address security threats, requests for K9 explosive detection services, requests for law enforcement presence during fare enforcement and passenger screening operations, and in addressing the impact of homelessness on the transit system based on discussions with Metro's SSLE Department.



F. Fare and Code of Conduct Compliance Enforcement

Enforcing fare compliance on the Metro system, as well as the Metro Customer Code of Conduct is a key element of Metro's safety and security mission. Currently, this mission is primarily the role of Metro Security but is also performed by contracted law enforcement personnel. To review Metro fare and code of conduct compliance enforcement we:

- Determined the number of fare validation checks (report by month, rail line, and compare to target)
- Summarized the total number of citations issued in FY 2018 and compared with the total number of citations issued in prior years.
- Determined whether performance indicators or metrics were developed for Metro's transit security and fare compliance functions.

Code of Conduct and Parking Enforcement and Citations

Exhibit 37 on the following page shows the citations for Metro Code of Conduct violations, including those related to transit fares. As this exhibit shows, the vast majority (98%) of the citations for Metro Code of Conduct violations are issued by Metro Security. This demonstrates the substantial change in the responsibility for fare and code of conduct enforcement from contracted law enforcement to Metro Security.

Parking enforcement is also an important function to ensure safety and that vehicles do not interfere with Metro bus and rail operations. Exhibit 38 shows the citations for parking violations issued by Metro Security and each of the contracted law enforcement agencies. As this exhibit shows, Metro Security issued the largest number of parking citations (49%), while the LASD issued a substantial number (43%) as well.



Exhibit 37

Citations for Metro Code of Conduct Violations FY 2018 by Agency

Code Of Conduct Violation	Metro Security	LA Police	LA Sheriff	Long Beach Police	Totals
Blocking An Isle Elevator Escalator Etc.	3				3
Board Thru Rear Bus Door To Avoid Payment Of Fare	1				1
Boarding Without Proof Of Payment	7,945	26	55	1	8,027
Bypassing Fare Gates Or Fare Collection Machines	745	9	8		762
Creating Disruptive Noise	20				20
Disturbing Others By Noise	73	6	3		82
Drinking Alcohol	16	15	2		33
Duplicate Or Counterfeit Fare Media	6				6
Eating Drinking Smoking	345	14	31		390
Enter Metro When Excluded Or When Prior Fines Due	1				1
Failure To Obey Signs	168	3	12		183
False Representation To Obtain Reduced Fare	406				406
Fare Evasion	30,002	133	61	10	30,206
Feet/Shoes On Seats	9		1		10
Graffiti	4	3			7
Graffiti / Remove Damage Or Tamper Metro Poster	2				2
Inval Coin Currncy In Fare Box Or Collect Device	2				2
Littering	368	4	1		373
Loitering In Metro Facilities Or Vehicle	20	11	7		38
Misuse Of Disc. Fare Media Or Fail To Prove Elgble	480				480
Misuse Of Fare Media	600				600
Obstructing Or Impeding Flow Of Metro Veh	2				2
Occupying More Than One Seat	279	2	3		284
Operating Stopping Or Parking A Veh In Rsvd Spc	1				1
Playing Sound Device	8				8
Post Signs Stickers Metro Facilities Or Vehicles	5				5
Preventing A Door From Closing	1				1
Prohibited Bicycle	1				1
Proof Of Payment	9	1			10
Reclining On Placing Objs On Or Blocking Seats	7				7
Refusal To Show Proof Of Payment	33		1		34
Riding Bicycles And Skateboards	80	2	12		94
Sale/Peddling Of Goods/Services	7	2	2		11
Soliciting In A Metro Facility Or Vehicle	3				3
Soliciting Lewd Conduct	1				1
Spitting	36		2		38
Throw Obj At A Patron Metro Rep. Facility Or Veh		1			1
Unsafe Conduct Metro Vehicles Or Metro Facilities	3				3
Urine Or Defecate Except In A Lavatory	31	6	1		38
Willfully Blocking Or Impeding Movement Of Persons	5	2			7
Willfully Interfere With Operation Of Metro Veh	1				1
Warning	22,360	25	131		22,516
Total	64,786	374	931	11	66,102
Percentage by Agency	98%	1%	1%	0%	100%



Exhibit 38 Citations for Parking Violations for FY 2018 by Agency					
Parking Violation	Metro Security	LA Police	LA Sheriff	Long Beach Police	Totals
Access Park Spaces Designated For Disabled	26	1	2		29
Blocking Fire Lane			4		4
Blocking Street Or Access	2				2
Bus Loading Zones	222		19		241
Car Share Or Vanpool Authorization Required	1				1
Disabled No Visible Placard Or Plate			1		1
Display Altered Counterfeit Or Expired Permit	1				1
Double Parking	11				11
Electric Vehicle Parking Spaces			1		1
Exceeding Posted Time Limit	4				4
Failure To Obey Signs	274	1	16		291
Failure To Obey Signs/Curb Markings	1	1	5		7
Failure To Properly Display The Permit As Instruct	5				5
Failure To Properly Register Vehicle License Plate	2	21	2		25
Illegal Parking At Fire Hydrant	1				1
Illegal Parking In Red Zones	39	2	4		45
Illegal Parking Outside Of A Defined Parking Space	35	1	20		56
Illegal Parking In Kiss & Ride Space/Pssngr Load Zone	1				1
No Front Plate	2	15	73		90
No Front Plates	1		1		2
No Parking Anytime/Posted Hours		2			2
Parking In A Permit Parking Spaces Without A Permit	3	7	1		11
Parking In Bus Loading		1	6		7
Parking In Red Zone			1		1
Parking Loading Zones (Commercial)		2			2
Parking Space Markings	1		11		12
Parking Within Marked Bicycle Lanes	1				1
Peak Hour Traffic Zones		1			1
Tags	21	14	62		97
Transient Daily Or Preferred Monthly Parking Perm	11		1		12
Unregistered Vehicle	2	33	357		392
Vehicle Exceeds Load Size Limit					0
Vehicle Parked Seventy Two Or More Hours	11	2	3		16
Warning	11	5	4		20
Totals	691	109	598		1,398
Percentage by Agency	49%	8%	43%	0%	100%



Exhibit 39 shows the trend in citations issued over the past six years. As this exhibit shows, the number of citations issued increased substantially (162%) between FY 2017 and FY 2018. Total citations are 35% below the level for FY 2013.

Exhibit 39			
Citations for Metro Code of Conduct Violations			
FY 2013 to FY 2018			
Year	Citations Issued	Annual Change	Cumulative Change
FY 2013	100,937		
FY 2014	82,892	-18%	-18%
FY 2015	58,102	-30%	-42%
FY 2016	29,524	-49%	-71%
FY 2017	25,218	-15%	-75%
FY 2018	66,102	162%	-35%
FY 2018 totals include 22,516 formal warnings issued.			

This increase in citations is likely attributable to the completion of the transition in responsibility for Code of Conduct enforcement from contracted law enforcement agencies to Metro Security.

Performance Indicators for Metro Security

The role and responsibilities of Metro Security have expanded substantially over the past few years and now includes primary responsibility for enforcing Metro’s Code of Conduct on the system, including fare enforcement. Given this, it is important that Metro Security have an effective accountability system, including meaningful performance indicators.

Finding 25: The SSLE Department plans to develop performance indicators for Metro Security during 2019.

The SSLE Department reports they will be developing Key Performance Indicators (KPI) for Metro Security during 2019. These KPI will cover two key areas: Fare Enforcement and Critical Infrastructure Protection. The fare enforcement KPI will focus on effective strategies to increase fare compliance. The critical infrastructure KPI will focus on assessing and mitigating security threats to the transits system and its critical structures.



Recommendation 25: The SSLE Department should continue and complete efforts to develop key performance indicators for Metro Security during FY 2019.



Appendix A: Comparison of Reported Crime on Rail Lines, Bus and Union Station

Exhibit 40 Metro Blue Line Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	1	1	0%	0	-100%	1	0%	0%
Rape	1	1	0%	0	-100%	3	0%	200%
Robbery	77	114	48%	109	-4%	59	-46%	-23%
Agg Assault	83	66	-20%	58	-12%	45	-22%	-46%
Agg Assault on Op	0	0	0%	0	0%	0	0%	0%
Totals	162	182	12%	167	-8%	108	-35%	-33%
Ridership (Millions)	26.4	24.4	-8%	23.7	-3%	21.3	-10%	-19%
Per 1 Million Riders	6.13	7.47	22%	7.05	-6%	5.07	-28%	-17%
Per Day	0.44	0.50	14%	0.46	-8%	0.30	-36%	-33%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	0	0	0	2	0%	7	250%	NA
Larceny-Theft	183	149	-19%	150	1%	128	-15%	-30%
Grand Theft Auto	29	26	-10%	21	-19%	13	-38%	-55%
Arson	3	4	33%	0	-100%	1	0%	-67%
Totals	215	179	-17%	173	-3%	149	-14%	-31%
Ridership (Millions)	26.4	24.4	-8%	23.7	-3%	21.3	-10%	-19%
Per 1 Million Riders	8.14	7.34	-10%	7.30	-1%	7.00	-4%	-14%
Per Day	0.59	0.49	-17%	0.47	-4%	0.41	-13%	-31%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	79	91	15%	85	-7%	96	13%	22%
Battery on Op	0	0	0%	1	NA	0	-100%	0%
Sex Offenses	17	13	-24%	14	8%	9	-36%	-47%
Weapons	21	31	48%	34	10%	31	-9%	48%
Narcotics	113	93	-18%	97	4%	90	-7%	-20%
Trespassing	73	75	3%	20	-73%	14	-30%	-81%
Vandalism	44	67	52%	34	-49%	24	-29%	-45%
Totals	347	370	7%	285	-23%	264	-7%	-24%
Ridership (Millions)	26.4	24.4	-8%	23.7	-3%	21.3	-10%	-19%
Per 1 Million Riders	13.14	15.18	16%	12.03	-21%	12.39	3%	-6%
Per Day	0.95	1.01	7%	0.78	-23%	0.72	-8%	-24%
Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018								



Exhibit 41 Metro Green Line Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	0	0	NA	2	NA	0	0%	NA
Rape	1	1	0%	2	100%	3	50%	200%
Robbery	85	95	12%	82	-14%	51	-38%	-40%
Agg Assault	16	31	94%	33	6%	12	-64%	-25%
Agg Assault on Op	0	0	0%	0	0%	0	0%	0%
Totals	102	127	25%	119	-6%	66	-45%	-35%
Ridership (Millions)	12.4	11.7	-6%	10.3	-12%	9.6	-7%	-23%
Per 1 Million Riders	8.22	10.85	32%	11.55	6%	6.88	-40%	-16%
Per Day	0.28	0.35	25%	0.33	-5%	0.18	-45%	-35%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	0	1	0	1	0%	2	100%	NA
Larceny-Theft	160	144	-10%	97	-33%	51	-47%	-68%
Grand Theft Auto	66	55	-17%	41	-25%	11	-73%	-83%
Arson	0	1	NA	0	-100%	1	NA	NA
Totals	226	201	-11%	139	-31%	65	-53%	-71%
Ridership (Millions)	12.4	11.7	-6%	10.3	-12%	9.6	-7%	-23%
Per 1 Million Riders	18.20	17.18	-6%	13.50	-21%	6.77	-50%	-63%
Per Day	0.62	0.55	-11%	0.38	-31%	0.18	-53%	-71%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	45	35	-22%	27	-23%	29	7%	-36%
Battery on Op	0	0	0%	0	NA	0	NA	NA
Sex Offenses	6	5	-17%	5	0%	4	-20%	-33%
Weapons	11	3	-73%	8	167%	11	38%	0%
Narcotics	53	25	-53%	26	4%	21	-19%	-60%
Trespassing	19	9	-53%	3	-67%	1	-67%	-95%
Vandalism	44	31	-30%	31	0%	17	-45%	-61%
Totals	178	108	-39%	100	-7%	83	-17%	-53%
Ridership (Millions)	26.4	11.7	-56%	10.3	-12%	9.6	-7%	-64%
Per 1 Million Riders	6.74	9.23	37%	9.71	5%	8.65	-11%	28%
Per Day	0.49	0.30	-39%	0.27	-9%	0.23	-16%	-53%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018



Exhibit 42 Metro Expo Line Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	0	0	NA	0	NA	0	0%	NA
Rape	0	0	NA	0	NA	0	0%	NA
Robbery	28	28	0%	57	104%	46	-19%	64%
Agg Assault	16	14	-13%	21	50%	20	-5%	25%
Agg Assault on Op	0	0	0%	0	0%	0	0%	0%
Totals	44	42	-5%	78	86%	66	-15%	50%
Ridership (Millions)	9.9	10.7	8%	17.1	60%	19.2	12%	93%
Per 1 Million Riders	4.43	3.93	-11%	4.56	16%	3.44	-25%	-22%
Per Day	0.12	0.12	0%	0.21	75%	0.18	-14%	50%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	0	0	0	1	0%	0	-100%	NA
Larceny-Theft	131	68	-48%	146	115%	164	12%	25%
Grand Theft Auto	6	8	33%	1	-88%	0	-100%	-100%
Arson	0	0	NA	0	NA	0	NA	NA
Totals	137	76	-45%	148	95%	164	11%	20%
Ridership (Millions)	9.9	10.7	8%	17.1	60%	19.2	12%	93%
Per 1 Million Riders	13.81	7.10	-49%	8.65	22%	8.54	-1%	-38%
Per Day	0.38	0.21	-45%	0.41	95%	0.45	10%	18%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	16	14	-13%	32	129%	47	47%	194%
Battery on Op	0	0	0%	0	NA	1	NA	NA
Sex Offenses	0	5	NA	11	120%	9	-18%	NA
Weapons	7	1	-86%	1	0%	2	100%	-71%
Narcotics	16	7	-56%	9	29%	4	-56%	-75%
Trespassing	7	4	-43%	2	-50%	2	0%	-71%
Vandalism	29	12	-59%	14	17%	3	-79%	-90%
Totals	75	43	-43%	69	60%	68	-1%	-9%
Ridership (Millions)	9.9	10.7	8%	17.1	60%	19.2	12%	93%
Per 1 Million Riders	7.56	4.02	-47%	4.04	1%	3.54	-12%	-53%
Per Day	0.21	0.12	-43%	0.19	58%	0.19	0%	-9%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018



Exhibit 43 Metro Red Line Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	0	0	NA	1	NA	0	0%	NA
Rape	0	2	NA	3	50%	2	33%	NA
Robbery	43	52	21%	46	-12%	55	20%	28%
Agg Assault	76	51	-33%	57	12%	30	-47%	-61%
Agg Assault on Op	0	0	0%	0	0%	0	0%	0%
Totals	119	105	-12%	107	2%	87	-19%	-27%
Ridership (Millions)	47.7	46.0	-4%	45.6	-1%	43.8	-4%	-8%
Per 1 Million Riders	2.49	2.28	-8%	2.35	3%	1.99	-15%	-20%
Per Day	0.33	0.29	-12%	0.29	0%	0.24	-18%	-27%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	2	1	-50%	3	200%	0	-100%	-100%
Larceny-Theft	133	120	-10%	98	-18%	160	63%	20%
Grand Theft Auto	5	10	100%	7	-30%	13	86%	160%
Arson	0	0	NA	2	NA	0	-100%	NA
Totals	140	131	-6%	110	-16%	173	57%	24%
Ridership (Millions)	47.7	46.0	-4%	45.6	-1%	43.8	-4%	-8%
Per 1 Million Riders	2.93	2.85	-3%	2.41	-15%	3.95	64%	35%
Per Day	0.38	0.36	-6%	0.30	-16%	0.47	58%	24%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	105	98	-7%	112	14%	188	68%	79%
Battery on Op	0	0	0%	0	NA	0	NA	NA
Sex Offenses	25	23	-8%	27	17%	38	41%	52%
Weapons	15	7	-53%	11	57%	0	-100%	-100%
Narcotics	120	66	-45%	75	14%	0	-100%	-100%
Trespassing	35	34	-3%	31	-9%	24	-23%	-31%
Vandalism	30	30	0%	22	-27%	22	0%	-27%
Totals	330	258	-22%	278	8%	272	-2%	-18%
Ridership (Millions)	47.7	46.0	-4%	45.6	-1%	43.8	-4%	-8%
Per 1 Million Riders	6.92	5.61	-19%	6.10	9%	6.21	2%	-10%
Per Day	0.90	0.71	-22%	0.76	8%	0.75	-2%	-18%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018



Exhibit 44 Metro Gold Line Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	0	1	NA	0	-100%	0	0%	NA
Rape	0	1	NA	0	-100%	1	0%	NA
Robbery	14	14	0%	13	-7%	15	15%	7%
Agg Assault	19	15	-21%	15	0%	9	-40%	-53%
Agg Assault on Op	0	0	0%	0	0%	0	0%	0%
Totals	33	31	-6%	28	-10%	25	-11%	-24%
Ridership (Millions)	14.0	15.4	10%	16.6	8%	16.2	-2%	16%
Per 1 Million Riders	2.35	2.01	-14%	1.69	-16%	1.54	-9%	-34%
Per Day	0.09	0.08	-11%	0.08	0%	0.07	-14%	-22%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	3	1	-67%	2	0%	0	-100%	-100%
Larceny-Theft	85	94	11%	56	-40%	54	-4%	-36%
Grand Theft Auto	11	14	27%	16	14%	9	-44%	-18%
Arson	0	0	NA	1	NA	0	-100%	NA
Totals	99	109	10%	75	-31%	63	-16%	-36%
Ridership (Millions)	14.0	15.4	10%	16.6	8%	16.2	-2%	16%
Per 1 Million Riders	7.06	7.08	0%	4.52	-36%	3.89	-14%	-45%
Per Day	0.27	0.30	10%	0.21	-30%	0.17	-18%	-36%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	26	30	15%	19	-37%	47	147%	81%
Battery on Op	0	0	0%	0	NA	0	NA	NA
Sex Offenses	7	6	-14%	16	167%	11	-31%	57%
Weapons	13	2	-85%	3	50%	1	-67%	-92%
Narcotics	38	18	-53%	19	6%	4	-79%	-89%
Trespassing	4	50	1150%	9	-82%	3	-67%	-25%
Vandalism	36	49	36%	42	-14%	21	-50%	-42%
Totals	124	155	25%	108	-30%	87	-19%	-30%
Ridership (Millions)	14.0	15.4	10%	16.6	8%	16.2	-2%	16%
Per 1 Million Riders	8.84	10.06	14%	6.51	-35%	5.37	-18%	-39%
Per Day	0.34	0.42	25%	0.30	-29%	0.24	-21%	-30%

Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018



Exhibit 45 Metro Bus Lines Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	0	1	0%	0	-100%	0	0%	0%
Rape	1	4	300%	0	-100%	5	0%	400%
Robbery	127	97	-24%	96	-1%	167	74%	31%
Agg Assault	143	139	-3%	107	-23%	94	-12%	-34%
Agg Assault on Op	30	18	-40%	20	11%	6	-70%	-80%
Totals	301	259	-14%	223	-14%	272	22%	-10%
Ridership (Millions)	334.8	320.7	-4%	276.7	-14%	280.8	1%	-16%
Per 1 Million Riders	0.90	0.81	-10%	0.81	0%	0.97	20%	8%
Per Day	0.82	0.71	-14%	0.61	-14%	0.75	22%	-10%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	6	4	-33%	4	0%	2	-50%	-67%
Larceny-Theft	293	319	9%	293	-8%	315	8%	8%
Grand Theft Auto	19	14	-26%	13	-7%	21	62%	11%
Arson	0	2	NA	1	-50%	0	-100%	NA
Totals	318	339	7%	252	-26%	338	34%	6%
Ridership (Millions)	334.8	320.7	-4%	276.7	-14%	280.8	1%	-16%
Per 1 Million Riders	0.95	1.06	11%	0.91	-14%	1.20	32%	27%
Per Day	0.87	0.93	7%	0.69	-26%	0.93	34%	6%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	142	225	58%	189	-16%	323	71%	127%
Battery on Op	63	114	81%	83	-27%	73	-12%	16%
Sex Offenses	29	65	124%	46	-29%	75	63%	159%
Weapons	25	29	16%	19	-34%	5	-74%	-80%
Narcotics	126	73	-42%	79	8%	19	-76%	-85%
Trespassing	10	23	130%	6	-74%	6	0%	-40%
Vandalism	134	179	34%	144	-20%	63	-56%	-53%
Totals	529	708	34%	566	-20%	564	0%	7%
Ridership (Millions)	334.8	320.7	-4%	276.7	-14%	280.8	1%	-16%
Per 1 Million Riders	1.58	2.21	40%	2.05	-7%	2.01	-2%	27%
Per Day	1.45	1.94	34%	1.55	-20%	1.55	0%	7%
Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018								



Exhibit 46 Union Station Comparison of Reported Crime FY 2015 to FY 2018								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Reported Part 1 Violent Crime								
Homicide	0	0	0%	0	0%	0	NA	NA
Rape	0	2	0%	0	-100%	2	NA	NA
Robbery	1	4	300%	1	-75%	0	-100%	-100%
Agg Assault	17	6	-65%	17	183%	9	-47%	-47%
Agg Assault on Op	0	0	0%	0	0%	0	NA	NA
Totals	18	12	-33%	18	50%	11	-39%	-39%
Ridership (Millions)	NA	NA	NA	NA	NA	NA	NA	NA
Per 1 Million Riders	NA	NA	NA	NA	NA	NA	NA	NA
Per Day	0.05	0.03	-40%	0.05	67%	0.03	-39%	-39%
Reported Part 1 Property Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Burglary	5	5	0%	5	0%	0	-100%	-100%
Larceny-Theft	42	27	-36%	42	56%	55	31%	31%
Grand Theft Auto	2	1	-50%	2	100%	4	100%	100%
Arson	0	1	NA	0	-100%	0	NA	NA
Totals	49	34	-31%	49	44%	59	20%	20%
Ridership (Millions)	NA	NA	NA	NA	NA	NA	NA	NA
Per 1 Million Riders	NA	NA	NA	NA	NA	NA	NA	NA
Per Day	0.13	0.09	-31%	0.13	44%	0.16	20%	23%
Reported Part 2 Crime								
Crime	FY 2015	FY 2016	Change	FY 2017	Change	FY 2018	Change	Total Change
Battery	37	19	-49%	37	95%	36	-3%	-3%
Battery on Op	0	0	0%	0	NA	0	NA	NA
Sex Offenses	4	3	-25%	4	33%	5	25%	25%
Weapons	7	1	-86%	7	600%	0	-100%	-100%
Narcotics	36	10	-72%	36	260%	0	-100%	-100%
Trespassing	12	2	-83%	12	500%	9	-25%	-25%
Vandalism	4	7	75%	4	-43%	4	0%	0%
Totals	100	42	-58%	100	138%	54	-46%	-46%
Ridership (Millions)	NA	NA	NA	NA	NA	NA	NA	NA
Per 1 Million Riders	NA	NA	NA	NA	NA	NA	NA	NA
Per Day	0.27	0.12	-56%	0.27	125%	0.15	-44%	-44%
Source: Analysis of crime reported by LASD for FYs 2015 to 2017, and reported by LAPD, LASD, and LBPD for FY 2018								



Appendix B: Schedule of Recommendations and Proposed Actions

Exhibit 47 Metro Security Performance 2018 Review Recommendation Summary and Proposed Actions					
No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
1	The Metro SSLE Department should continue to work with contract law enforcement agencies to improve the complete and accurate reporting of crime that occurs on the Metro System.				
2	The Metro SSLE Department should continue to work to develop a more macro approach to oversight and monitoring of contracted law enforcement resources using the GPS function of the Mobile Phone Validators (MPV) assigned to contracted law enforcement personnel and the data generated from them.				
3	The Metro SSLE Department should consider providing more detailed information on reported crime to distinguish between violent crime and property and petty crime.				
4	The Metro SSLE Department should collect and report response time information for all three categories of calls for service.				
5	The Metro SSLE Department should use the GPS function and data generated to provide reliable and meaningful information on the amount of time contracted law enforcement officers spend on various parts of the Metro System.				
6	The Metro SSLE Department should work with the contract law enforcement agencies to review, revise and adopt Key Performance Indicators (KPI) including baseline or target levels of performance for each KPI.				



No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
7	<p>The Metro SSLE Department should continue to develop the Metro Community Policing plan and ensure it includes: Specific training in Problem Oriented Policing for law enforcement personnel to assist Metro in addressing matters related to crime and disorder Attendance at community meetings and other events designed to foster Metro’s relationship with the community Protocols to obtain feedback from bus and rail managers that will be used in the overall policing strategy</p>				
8	<p>A. LAPD should continue monitoring the contract requirements to ensure all personnel meet the required certification and complete the transit policing training before working on any Metro assignments. B. Metro SSLE Department should continue monitoring the contract requirements for qualifications and training of personnel to ensure compliance.</p>				
9	<p>A. LAPD should submit the required payroll records with the monthly invoice. B. Metro should continue to monitor LAPD’s billings to ensure all the required supporting documents are submitted with the invoices</p>				
10	<p>A. LAPD should submit the list of maximum fully burdened hourly rates for each labor classification for overtime in accordance with the contract</p>				



No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
	<p>requirements. Also, the escalation rate included in the calculation of the maximum fully burdened hourly rates should not exceed the maximum escalation rate stipulated in the contract.</p> <p>B. Metro SSLE Department should work with LAPD to ensure that the list of maximum fully burdened hourly rates complied with the contract requirements. Metro should also review the billing rates for overtime for all invoices to determine the extent of overbillings for FY 2018.</p>				
11	<p>A. LAPD should submit the list of maximum fully burdened hourly rates for all labor classifications in accordance with the contract requirements. For any additional labor classifications not identified in the list of maximum fully burdened hourly rate, LAPD should submit a revised list to Metro for approval prior to incurring the cost.</p> <p>B. Metro SSLE Department should continue to monitor LAPD's billings to ensure only the approved labor classifications are billed and included in the list of maximum fully burdened hourly rates. Metro should also review the billing rates for straight time for all invoices to determine the extent of overbillings.</p>				
12	<p>A. LAPD should return the overbilled and overpaid amount of \$3,874.99 to Metro.</p>				



No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
	B. Metro SSLE Department should continue monitoring LAPD's billings to identify and resolve billing discrepancies.				
13	A. LAPD should submit the prevailing Cost Allocation Plan (CAP) rate together with the list of maximum fully burdened hourly rates for overtime. B. Metro SSLE Department should continue to monitor LAPD's billings to ensure the overtime overhead rate billed was based on the CAP overhead rate approved by the Federal Government in effect at the time the work was performed.				
14	A. LAPD should submit to Metro in a timely manner the monthly Summary of Problem-Oriented Policing projects. B. Metro's SSLE Department should continue to monitor LAPD's submission of reports and stamp the date received on reports to ensure all the required reports are submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures.				
15	A. LAPD should provide the equipment in the quantities listed in Exhibit E of the contract. B. Metro SSLE Department should continue to monitor LAPD's equipment to ensure the quantities listed in Exhibit E of the contract are properly provided and in a timely manner.				



No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
16	A. LASD should continue monitoring the contract requirements to ensure all personnel complete the safety training and transit policing training before working on any Metro assignments. B. Metro SSLE Department should continue monitoring the contract requirements for qualifications and training of personnel to ensure compliance with the contract.				
17	A. LASD should issue an additional credit amount of \$1,699.68 to Metro. B. Metro SSLE Department should continue monitoring LASD's billings to ensure each job position meet the service levels promised on Form 575 and the billing rates are in compliance with the contract.				
18	A. LASD should submit to Metro in a timely manner the report for number of cases referred for follow-up investigation and the subsequent disposition. B. Metro SSLE Department should work with LASD to resolve any issues regarding the required reports. Also, Metro should continue monitoring LASD's submission of reports to ensure all the required reports were submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures.				
19	A. LBPD should continue monitoring the contract requirements to ensure all personnel have completed the				



No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
	<p>transit policing training before working on any Metro assignments.</p> <p>B. Metro SSLE Department should continue monitoring the contract requirements for qualifications and training of personnel to ensure compliance.</p>				
20	<p>A. LBPD should inform Metro the amount expected to exceed the estimated cost specified in the contract for each year before incurring the costs.</p> <p>B. Metro SSLE Department should continue monitoring LBPD's billings, payments and contract amount to ensure that costs do not exceed the contract amount.</p>				
21	<p>A. LBPD should submit the daily summary of assignments for all hours worked and payroll records with the invoices.</p> <p>B. Metro SSLE Department should continue monitoring LBPD's billings to ensure all the required supporting documents were submitted with the invoices.</p>				
22	<p>A. LBPD should return to Metro the overbilled and overpaid amount of \$14,643.89.</p> <p>B. Metro SSLE Department should continue to monitor LBPD's billings to ensure only the approved labor classifications are billed and included in the list of maximum fully burdened hourly rates. Metro should also review the billing rates for all invoices to determine the extent of overbillings for FY2018.</p>				



No.	Recommendation	Staff Assigned	Agree or Disagree	Proposed Action	Completion Date Estimate
23	Metro SSLE Department should review the billing methodology specified in the contract for equipment cost and determine whether the contract should be revised.				
24	Metro SSLE Department should continue monitoring LBPD's submission of reports to ensure all the required reports are submitted in a timely manner and with complete information to allow Metro to determine the calculation of the reported figures.				
25	The SSLE Department should continue and complete efforts to develop key performance indicators for Metro Security during FY 2019.				



File Summary

File Number	Title	Current Status
2019-0481	Informational Report RECEIVE AND FILE OIG report on Metro Security Performance Review Fiscal Year 2018. Introduced: 6/6/2019 Meeting Date: 7/18/2019 Drafter: taylorm@metro.net	Agenda Ready Controlling Body: Operations, Safety, and Customer Experience Committee Sponsor(s): Operations, Safety, and Customer Experience Committee and Executive Management Committee

Office of the Inspector General Metro Security Performance Review Fiscal Year 2018

Metro Operations, Safety, and Customer Experience Committee

July 18, 2019

BCA Watson Rice, LLP





Background and Scope

1. Metro awarded three separate 5-year firm fixed unit rate contracts to the LAPD, the LASD, and the LBPD for transit law enforcement services in 2017.
2. The Metro Board directed the OIG to annually audit each law enforcement services contract.
3. The audit is to ensure that Metro is receiving the services it is paying for.
4. This report evaluates transit security performance provided by the three Contractors and Metro's Transit Security Department during FY 2018.



Crime and Safety Trends

1. Reported Violent Crime decreased by 18% between FYs 2015 and 2018, with most of this decrease (14%), occurring between FYs 2017 and 2018.
2. Reported Property Crime decreased 15% between FYs 2015 and 2018, with a decrease of 16% occurring between FYs 2015 and 2017, and an increase of 1% occurring between FYs 2017 and 2018.
3. Rider perceptions of safety on the Metro Train system declined slightly and rider perceptions of safety on the Metro Bus system improved slightly between FYs 2015 and 2018.



Key Recommendations

There were 25 recommendations, but these are some key ones:

1. Improve the reporting of crime that occurs on the Metro System:
 - A. More detailed information on reported crime to distinguish between violent crime and property and petty crime, and
 - B. Report crimes related to the Metro System but handled by Non-Metro assigned personnel.
2. Strengthen oversight and monitoring of resources using the GPS function of the Mobile Phone Validators.
3. Review, revise, and adopt KPIs including baseline or target levels of performance.
4. Continue and expand monitoring and oversight of contract compliance, including:
 - A. Reviewing invoices for potential overbilling,
 - B. Enforcement of training requirements,
 - C. Staying within budget, and
 - D. Deployments that increase rider perceptions of safety.
5. Improve documentation to support billings.
6. Seek some refunds of small amounts due to Metro.



Board Report

File #: 2019-0481, File Type: Informational Report

Agenda Number: 26.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
EXECUTIVE MANAGEMENT COMMITTEE
JULY 18, 2019**

**SUBJECT: OFFICE OF THE INSPECTOR GENERAL REPORT ON METRO SECURITY
PERFORMANCE REVIEW FISCAL YEAR 2018**

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE OIG report on Metro Security Performance Review Fiscal Year 2018.

ISSUE

On February 23, 2017, the Metro Board passed a motion directing that the Inspector General conduct an annual audit of each law enforcement services contract to determine how key performance indicators are measuring up against actual performance metrics. The audit is to ensure that Metro is receiving the services it is paying for.

BACKGROUND

In 2017, LACMTA (Metro) awarded three separate 5-year firm fixed unit rate contracts to the Los Angeles Police Department (LAPD), the Los Angeles County Sheriff's Department (LASD), and the Long Beach Police Department (LBPD) for transit law enforcement services to support day-to-day operations across Metro's entire service area. Metro also directly employs transit security officers who perform fare checks and bus/rail patrolling.

DISCUSSION

A. Trends in Crime, Perceptions of Safety, and Safety and Security Complaints

There are three key outcome measures that can be used to evaluate the effectiveness and trends of Metro's safety and security approach and program. These are the level of reported crime on the system, the perceptions of safety by users of the system, and the number of safety and security complaints made by users of the system.

Reported Crime

Total reported Violent Crime on the Metro System decreased by 18% between FY 2015 and FY 2018,

with most of this decrease (14%), occurring between FY 2017 and FY 2018. Total reported Property Crime on the Metro System decreased 15% between FY 2015 and FY 2018, with a decrease of 16% occurring between FY 2015 and FY 2017, and an increase of 1% occurring between FY 2017 and FY 2018.

Obtaining complete and accurate reporting of crime that occurs on the Metro System continues to be challenging. This is partially due to the fact that the Metro System operates within multiple jurisdictions with their own law enforcement agencies who respond to, handle, and report crime that may not be reported to Metro.

In addition, in the LAPD service area of the Metro System, LAPD neighborhood patrol units respond to and handle many crimes that occur within the Metro System. An unknown number of these crimes are not reported to the LAPD Transit Policing Division and so are not tracked and reported to Metro.

We recommend the Metro System Security and Law Enforcement (SSLE) Department continue to work with contract law enforcement agencies to improve the complete and accurate reporting of crime that occurs on the Metro System.

Rider Perceptions of Safety

Perception of crime and disorder on the Metro System creates a risk to the confidence in safety held by passengers and Metro employees and poses a risk to the reputation of Metro as a safe and secure system. Passengers who perceive the system to be unsafe will not use the service, and therefore reduce the number of people using transit and Metro's ridership.

Based on Metro rider surveys conducted annually, rider perceptions of safety on the Metro Train system declined slightly and rider perceptions of safety on the Metro Bus system improved slightly between FY 2015 and FY 2018. These changes in perceptions of safety are small and within the margin of error for the survey. However, it is important to continue to monitor rider perceptions of safety on the Metro System and to develop strategies to address concerns and improve that perception.

Complaints Regarding Safety and Security

Another important indicator of the public or riders' perception of the safety of the Metro System is the number of complaints received regarding safety and security. During the period from FYs 2015 to 2018, rider complaints for the bus system regarding passenger safety or conduct issues were not among the top ten complaints. However, for the rail system, rider complaints regarding passenger safety or conduct issues were the second most common complaint of the top ten complaints for FYs 2015 to 2017. For FY 2018, complaints regarding passenger safety or conduct issues dropped to five of the top ten.

We recommend the SSLE Department continue to monitor rider survey results regarding perceptions of safety of riders on the Metro System and complaints regarding safety and passenger conduct issues and develop strategies to improve those perceptions and reduce complaints.

B. Resource Monitoring and Oversight

The SSLE Department is charged with ongoing oversight of the contracted law enforcement services as well as the operations of Metro Security.

Audits of Contracted Law Enforcement Personnel Presence

Metro has and will continue to have a substantial investment in resources devoted to system safety and security. Ensuring that these resources are effectively and efficiently used is very important.

Oversight and monitoring of contracted law enforcement resources has been problematic. Metro has had some difficulty in ensuring that law enforcement personnel assigned to Metro are actually present and performing as assigned. Historically, Metro has not had an effective means of verifying the accuracy of staffing information provided by contract law enforcement, or of verifying that personnel charging time on the Metro contract are actually present and providing the contracted services.

Beginning with FY 2018, the SSLE Department implemented regular “audits” of law enforcement personnel to monitor consistency between personnel time reported and the invoiced costs. Beginning in September 2017, Metro also began conducting “field audits” of law enforcement personnel in addition to the comparison audits of information provided by contracted law enforcement agencies. These field audits involve taking the roster of law enforcement personnel assigned to work and verifying that those personnel are actually in the field and providing the contracted service. These field audits strengthen Metro’s contract oversight and monitoring.

GPS Based Contracted Law Enforcement Oversight and Monitoring

The SSLE Department has been working to develop and implement an effective method of tracking and monitoring the activities of safety and security resources deployed on the Metro System using the GPS function on smartphones used by Metro safety and security personnel.

The Mobile Phone Validators (MPV) provided to contracted law enforcement officers are now GPS enabled and are able to provide information on the location and movement of the MPV and law enforcement resources. Metro has not yet begun using the GPS function and information generated to track or monitor the activities of contracted law enforcement resources.

We recommend the SSLE Department should work to develop a more macro approach to oversight and monitoring of contracted law enforcement resources using the GPS function of the MPV assigned to contracted law enforcement personnel and the data generated from them.

Oversight of Other Law Enforcement Contract Requirements

In our review of compliance with the contract terms, we found some instances of non-compliance by all three law enforcement agencies with qualifications and training of personnel assigned, reports and information being provided to Metro, equipment provided under the contract, and appropriate support for invoices submitted. Increased monitoring and oversight of these requirements seems warranted given the size of the contracts and the importance of the services being provided.

We recommend the SSLE Department should consider expanding monitoring and oversight of other contract requirements including qualifications and training of personnel, required reporting, equipment provided, and invoice support and compliance with the contract. We also recommend

Metro seek reimbursement for overbillings and overpayments resulting from noncompliance with contract terms during FY 2018.

C. Key Performance Indicators (KPI)

It is essential that Metro clearly define performance expectations for each of the contract law enforcement agencies and use meaningful performance indicators to evaluate how well these expectations are being met.

Reporting of Crime and Incident Response Time Indicators

Two of the KPI included in each of the law enforcement contracts were intended to provide information on the outcomes of the law enforcement service provided including changes in the number of crimes reported and increases in crime incident response times.

In crime reporting the emphasis should be on violent crime, which is obviously the most impactful to the Metro System and has the greatest impact on Metro's riders. Reporting all crime in the aggregate is less meaningful because violent crimes such as homicide, robbery and rape are given the same weight as lesser crimes such as larceny, petty theft, and vandalism.

A primary workload for law enforcement is responding to and handling incidents that occur on the Metro System or calls for service. Metro's SSLE Department currently only collects and reports response time information for emergency calls for service. While emergency calls for service are obviously the most important calls, tracking and reporting response time on less urgent incidents and calls for service is also important.

Often these lower priority calls for service involve quality of life issues and concerns as well as victims of property crimes. A slow response to these incidents can have a negative impact on the perception of the riding public transit that the system is safe and well protected. In addition, not requiring contract law enforcement agencies to track and report these response times communicates to them and their officers that these calls are not important.

We recommend that Metro's SSLE Department begin to collect and report on response times for all calls for service that require a law enforcement response.

Visibility of Law Enforcement Security Personnel Indicators

Providing a visible security presence within the Metro System is an important strategy for providing both a sense and reality of safety. Three of the KPI included in each of the law enforcement contracts were intended to provide information on the visibility of law enforcement security personnel on the Metro System. These are 1) the ratio of proactive versus dispatched activity, 2) the number of foot and vehicle patrols of bus stops, transit centers, train platforms, plazas, and stations, and 3) the number of bus and train boardings.

Contract law enforcement agencies were only able to report on the ratio of proactive versus dispatched activity. Contract law enforcement agencies were not able to report on the other two KPI. While these are important indicators and would provide useful information on the level of activity and visibility of contracted law enforcement personnel, it was not practical for the law enforcement

agencies to reliably collect meaningful information for these indicators. As discussed in Section B of this report, using the GPS function and the data generated could provide more reliable and meaningful information on the amount of time contracted law enforcement officers spend on each of these activities related to KPI 2 and 3 above.

Law Enforcement Personnel Presence Indicator

One of the KPI included in each of the law enforcement contracts was intended to provide information on the presence of the contracted law enforcement personnel. This is the ratio of staffing levels and vacant assignments. This indicator is important in both communicating to the contract law enforcement agencies the need to actually staff contracted assignments and to report how effectively these positions are actually being staffed. Reported staffing levels collectively were at 98.5% or above during FY 2018.

Baseline Expectations and Other Potential Performance Indicators

It is important to establish baseline expectations or targets for each performance indicator. This not only clearly communicates performance expectations, but it also can help drive improvements in performance through the development and implementation of new strategies. Baseline performance levels for each KPI have not been developed.

We recommend Metro's SSLE Department work with contract law enforcement agencies to establish baseline or target performance levels for each of the KPI currently in use. They should also work together to determine if additional KPI would be appropriate and meaningful.

D. Community Policing

Community policing within a transit system should place an emphasis on quality of life issues. The customers of the Metro System must feel safe and secure. The presence of security, in whatever form, must have a "felt presence;" that is, they must be visible and engaged without becoming oppressive and threatening.

Metro Community Policing Plan

The Metro SSLE Department is in the process of developing a community policing plan for the Metro System. The Metro Community Policing Plan will be a unified plan instead of having each of the three law enforcement agencies develop individual community policing plans. The Metro Community Policing Plan is part of Metro's new Equity Platform, which aims to assure equity across all programs impacting transit service, planning, and policing. The SSLE Department expects to have a draft Metro Community Policing Plan completed by the Fall of 2019.

We recommend the Metro SSLE Department continue to develop the Metro Community Policing Plan and ensure it includes specific training in Problem Oriented Policing for law enforcement personnel, attendance by law enforcement personnel at community meetings, and protocols to obtain feedback from bus and rail managers.

Law Enforcement Service Request (LESR) System

Metro employees, including bus and train operators, maintenance personnel, customer service

representatives, and others are the front-line representatives of Metro and have ongoing and direct interaction with the riding public. The LESR system implemented in FY 2018 should provide good information on Metro employee safety and security issues and concerns on the system going forward.

During FY 2018, a total of 935 law enforcement service requests were generated by Metro employees. Our review of the requests and responses indicate that law enforcement agencies are using the LESR to identify and resolve issues and concerns.

E. Compliance with Specific Contract Requirements

The contracts with the three law enforcement agencies each contain specific requirements related to personnel and training, billing, required reports, and other contractual requirements.

Overview of Law Enforcement Contract Requirements

Each of the contracts with the three law enforcement agencies includes specific contract requirements. This includes requirements for the experience and training of law enforcement personnel assigned to Metro, billing information and supporting documentation, required information and reports on activities, and other information on equipment provided.

Los Angeles Police Department (LAPD) Contract Compliance

The following are the results of our review of LAPD's contract compliance:

- LAPD was not in compliance with two of the contract requirements related to personnel and training.
- The total amount billed and paid to LAPD for FY 2018 did not exceed the estimated cost specified in the contract for Year 1.
- Invoices submitted to Metro were based on actual services provided and supported by daily summary of assignments and hours worked using the cost data from the payroll system. However, actual payroll records were not submitted with the invoices as required.
- For overtime charges, we were unable to determine whether the billing rates exceeded the approved maximum fully burdened hourly rates because the list of maximum fully burdened hourly rates that LAPD submitted to Metro was not in compliance with the contract.
- Eight labor classifications totaling \$281,400.77 were not found in the required list of maximum fully burdened hourly rates.
- For straight time charges, we identified a total amount of \$3,874.99 as overbilled by LAPD and overpaid by Metro.
- LAPD invoiced an overhead rate of 12.76% for overtime hours that was unsupported by

adequate documentation.

- LAPD met 8 out of 9 contract requirements for submitting required reports to Metro. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. However, no information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted on time in accordance with the contract.
- Exhibit E of the contract provides a list of equipment that the LAPD was supposed to provide under the contract. We found that LAPD did not provide the equipment in the quantities listed in Exhibit E.

Los Angeles County Sheriff's Department (LASD) Contract Compliance

- LASD was not in compliance with two of the contract requirements related to personnel and training.
- The total amount billed and paid for FY 2018 to LASD did not exceed the estimated cost specified in the contract for Year 1.
- Except for a credit amount understatement of \$1,699.68, the billing rates were consistent with Metro's approved rates. Invoices were based on actual services provided and supported by Payment Certification, the Service Level and Billing Status Report, and the Patrol Compliance Report.
- LASD met 7 out of 8 contract requirements for required reports. The reports were submitted in a timely manner, with adequate information and in a format that allows Metro to determine the calculation of the reported figures.

Long Beach Police Department (LBPD) Contract Compliance

- LBPD was not in compliance with the contract requirement for Transit Policing training.
- The total amount billed and paid for FY2018 exceeded the estimated cost specified in the contract for Year 1 by \$885,578.
- Daily summary of assignments for all hours worked and payroll records were not submitted with the invoices.
- The billing rates exceeded Metro's approved maximum fully burdened hourly rates for three labor categories. Only one of the three labor categories was listed in the approved maximum fully burdened hourly rates. We identified a total amount of \$14,643.89 as overbilled by LBPD

and overpaid by Metro.

- The billing methodology for equipment cost was not consistent with the contract agreement.
- LBPD met 8 out of 9 contract requirements for required reports. The reports were submitted with adequate information and in a format that allows Metro to determine the calculation of the reported figures. No information was provided as to when these reports were submitted to Metro so we were unable to determine if the reports were submitted to Metro on time.

F. Fare and Code of Conduct Compliance Enforcement

Enforcing fare compliance on the Metro System as well as the Metro Customer Code of Conduct is a key element of Metro's safety and security mission.

Code of Conduct and Parking Enforcement and Citations

The vast majority (98%) of the citations for Metro Code of Conduct violations are issued by Metro Security. This demonstrates the substantial change in the transfer in responsibility for fare and code of conduct enforcement from contracted law enforcement to Metro Security. The number of Code of Conduct citations issued increased substantially (162%) between FY 2017 and FY 2018. Total citations are 35% below the level for FY 2013.

Performance Indicators for Metro Security

The role and responsibilities of Metro Security have expanded substantially over the past few years and now includes primary responsibility for enforcing Metro's Code of Conduct on the system, including fare enforcement. Given this, it is important that Metro Security have an effective accountability system, including meaningful performance indicators.

The SSLE Department reports they will be developing KPIs for Metro Security during 2019. These KPIs will cover two key areas: Fare Enforcement and Critical Infrastructure Protection. The fare enforcement KPI will focus on effective strategies to increase fare compliance. The critical infrastructure KPI will focus on assessing and mitigating security threats to the transit system and its critical structures.

FINANCIAL IMPACT

Adoption of the recommendations in this report does not increase the financial impact on the agency.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendations in this report support Strategic Plan Goal 2.1 (Improving security), Goal 5.6 (fostering and maintaining a strong safety culture), and Goal 2 (delivering outstanding trip experiences).

NEXT STEPS

Metro management should:

- Complete the Schedule for Tracking Metro's Proposed Actions in response to the recommendations provided in Appendix B of the report as determinations are made on implementing the recommendations; and
- Periodically report to the Metro Board on the status of actions taken to implement the recommendations.


ATTACHMENTS

Attachment A - Metro Security Performance Review Fiscal Year 2018

Prepared by: Myra Taylor, Senior Auditor, (213) 244-7306

Yvonne Zheng, Senior Manager, Audit, (213) 244-7301

Reviewed by: Karen Gorman, Inspector General, (213) 922-2975



Karen Gorman
Inspector General



Board Report

File #: 2019-0496, **File Type:** Informational Report

Agenda Number: 27.

**OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE
EXECUTIVE MANAGEMENT COMMITTEE
JULY 18, 2019**

SUBJECT: MONTHLY UPDATE ON TRANSIT SAFETY AND SECURITY PERFORMANCE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Transit Safety and Security Report.

ISSUE

This report reflects May 2019 performance data as reported under the transit policing deployment strategy which is a combination of in-house fare compliance officers, private security for fixed assets and a multi-agency law enforcement deployment strategy by the Los Angeles Police Department (LAPD), Los Angeles County Sheriff’s Department (LASD), and Long Beach Police Department (LBPD). The information in this report summarizes Crimes Against Persons, Crimes Against Property, and Crimes Against Society data under Uniform Crime Reporting (UCR) Program, average emergency response times, assaults on bus operators, and Metro’s fare compliance and homeless outreach efforts. The Six Key Performance Indicators (KPI) are Uniform Crime Reporting guidelines, Average Emergency Response Times, Percentage of Time Spent on the System, Ratio of Staffing Levels vs Vacant Assignments, Ratio of Proactive vs Dispatched Activity, and Number of Grade Crossing Operations.

BACKGROUND

UCR is a National Incident-Based Reporting System from the US Department of Justice. It captures crime offenses in one of three categories: Crimes Against Persons, Crimes Against Property, and Crimes Against Society.

DISCUSSION

Crime stats are as follows:

Crimes Against Persons

For the month of May 2019, crimes against persons increased by 9 crimes system-wide compared to the same period last year.

Crimes Against Property

For the month of May 2019, crimes against property decreased by 16 crimes system-wide compared to the same period last year.

Crimes Against Society

For the month of May 2019, crimes against society decreased by 10 crimes system-wide compared to the same period last year.

Bus Operator Assaults

There were 9 bus operator assaults reported in May, which is four more compared to the same period last year.

Average Emergency Response Times:

Emergency response times averaged 4.61 minutes for the month of May.

Physical Security Improvements:

The Systems Security and Law Enforcement division continues to provide a secure and safe environment for our patrons and employees. Our Metro Facility physical security assessment was completed, and the report was presented to key Metro leaders in Bus and Rail Operations, Information Technology and Facilities. The physical security assessment of Union Station started in August and concluded in February 2019.

We are working closely with the Los Angeles Police Department to develop a concept of the operations for the deployment of the Thruvision detection at range technology. We have had several meetings with the LAPD, and we continue to develop the procedures that will protect the public and Metro.

We met with the California Public Utilities Commission representatives to plan our Triennial Audit which will occur in September 2019.

We continue to improve our new Transit Watch application, and we hope to have the prototype ready this winter.

The Red Line ancillary area surge continues, and we are making progress with securing our underground rail stations.

The New Blue Line North project planning commenced, and the site walks were conducted to identify law enforcement and security locations to support the construction.

Metro's Homeless Efforts:

In spring 2016, Metro created the Metro Homeless Task Force to address the displaced persons that have turned to Metro system and property for alternative shelter. Out of the Task Force, Metro created the Metro Transit Homeless Action Plan which was presented to the Metro Board of Directors in February 2017. The Action Plan's goals are to enhance the customer experience, maintain a safe and secure system, and provide coordinated outreach. Components of the plan include Metro's coordination with County and City Measure H and Measure HHH. The plan also called for the hiring

of two C3 teams (County, City, Community) through the County Department of Health Services as indicated by Metro’s Board of Directors. The C3 teams are to provide coordinated and responsive outreach to the homeless and to ultimately get them in housing resources.

Metro’s C3 Homeless Outreach Teams:

Metro’s C3 Homeless Outreach teams’ twelve-month pilot program began on May 22, 2017 with initial homeless outreach on the Red Line. Since the launch of Metro’s C3 Homeless Outreach teams they have provided substantial homeless outreach-with 5,194 total unduplicated homeless contacts,1,315 of whom have been linked to permanent housing solutions with a total of 114 homeless persons permanently housed. In FY19 Metro expanded the C3 teams from two to eight teams to cover rail, bus and Union Station.

C3 Homeless Outreach May1, 2019 through May 31, 2019:

Performance Measure	May Number Served	Project Year to date Number Served
Contacts with unduplicated individuals	220	5,194
Unduplicated individuals engaged	82	2,785
Unduplicated individuals provided services (obtaining vital documents, follow-up activities, transportation, CES packet, clinical assessment, etc.) or successful referral (supportive services, benefits linkage etc.)	134	2,122
Unduplicated individuals engaged who are successfully linked to an interim housing resource	83	862
Unduplicated individuals engaged who are linked to a permanent housing resource	22	339
Unduplicated individuals engaged who are permanently housed	16	114

Staff received eight referrals from LAPD. Of these, two could not be located and two declined services. Of those remaining:

- Four people were placed in interim housing.
- One of these four is now living with her significant other.
- The other three are continuing to work with the team toward permanent housing.

Impact Story resulting in Stable Housing

Recently Metro Security referred a 30 year old female and her three male children ages 10, 8, 6 to PATH Metro. The client reported that she was stranded in Los Angeles after fleeing a domestic violence relationship and was trying to return to her mother’s home in Hemet, California. The client displayed obvious signs of being distraught and worried that her abuser would find her at the station. The determination was made by PATH Outreach Team members to transport the client and her children to her mother’s home in Hemet rather than trying to place her on the next available train. The client’s mother was contacted and gladly agreed to receive her daughter and grandchildren. PATH Metro Outreach Team then transported all four individuals to Hemet, California in PATH’s company vehicle. Client and children were reunified with her mother and are residing in her home. The Client promised to follow-up with the police to report the abuse. Client also stated that her

abuser did not know the location of her mother's home and as a result of that she "felt safe" at her mother's home.

C3 Coordination with Law Enforcement

With Metro System Security and Law Enforcement personnel as the lead, Metro's C3 teams coordinate with LAPD's Homeless Outreach and Protective Engagement (HOPE) Teams, LASD's Mental Evaluation Teams (MET), Long Beach PD, and Metro's Transit Security Officers, in an effort to engage the homeless and provide placement into services. These law enforcement entities provide gap service on the lines for homeless outreach when the C3 Teams are off duty or working another portion of the system.

Sheriff Mental Evaluation Team (MET) Contacts May 5, 2019 through June 1, 2019

These monthly statistics only include contacts of the Transit MET Units. They do not include contacts made by other Transit Services Bureau personnel. In addition to the data reported below, Transit MET Units:

- Transported 21 clients to other homeless outreach connection services.
- 2 teams attended LASD/MET MILO training at Industry Station - 05/22/2019.
- 7 teams attended LACMET training meeting hosted by LASD County-Met - 05/22/2019.
- 6 teams attended Basic Crisis Negotiation training course from 05/28/2019 - 05/31/2019.
- 7 teams attended Advance Crisis Negotiation training course from 06/03/2019 - 06/05/2019.

Long Beach Quality of Life Officers Update May 2019

The Quality of Life Officers began working with LBPD at the beginning of February 2019. The Blue Line Closure was in effect for the entire month of May. The number of contacts should increase once the "New Blue" opens in June.

The Quality of Life Officers have concluded their work with Metro personnel and Long Beach Health Department's Multi-Service Center Homeless Outreach personnel at two right-of-way homeless encampments in Long Beach. The encampment locations are:

- An abandoned golf course property adjacent to the blue Line and north of the Wardlow Station.
- On the eastern perimeter right-of-way at Division 11.

These locations are in maintenance mode with Quality of Life Officers checking on the locations daily to ensure encampments do not become re-entrenched.

May 2019 Law Enforcement Homeless Outreach

ACTION	LAPD HOPE	LASD MET	LBPB
Contacts	1,183	441	14
Referrals	30	267	4
5150 Holds	15	15	0
Mental Illness	24	140	0
Substance Abuse	44	138	4
Veterans	7	5	0
Shelter	5	7	0
Motel Housing Plan	1	0	0
VA Housing	0	0	0
Return to Family	1	0	0
Transitional Long Term Housing	5	0	0
Detox	0	0	0
Rehab	3	0	0

Metro ROW Encampment:

- May 1, 2019 - MRL Vermont Beverly Station Plaza, abandoned site. Trash cleanup completed on May 3, 2019.

Metro Encampments Outside, Adjacent to Metro ROW:

- May 24, 2019 - Burbank Branch Chandler Bikeway East of Vineland Avenue - Active Encampment Cleanup was cleared by LAPD and cleaned by LADOT on May 30, 2019.

Measure H Generalist:

Metro’s Homeless Action Plan integrates itself into the work provided under Measures H and HHH. Part of the E6 Strategies of Measure H includes 40 additional outreach workers otherwise known as “generalists” to conduct outreach on government properties including Metro, and countywide parks, libraries, beaches and harbors. These generalists do not go past the fare gates and their data, per the county will not be extrapolated for Metro. However, these generalists currently work with the C3 teams to provide outreach services.

Connect Days

Connect Days provide comprehensive homeless resources at location sites throughout LA County. These resource opportunity events are led by Council Districts (CD) and are utilized by Metro’s C3 and Measure H teams when the Connect Days are adjacent to Metro properties. CD1 hosts a standing Connect Day at MacArthur Park that was utilized in May by Metro’s C3 teams to provide comprehensive resources to the homeless.

Mental Health Outreach Workers:

The LA County Department of Mental Health has provided a mental health clinician to one of Metro's contracted HOPE team. Mental Health professionals are paired with all MET Teams.

Faith Based Partnership

Since January 2019, Metro has hosted four regional faith leader roundtable discussions to identify ways that Metro and the Faith based community in LA County may partner to serve the homeless. There is a major opportunity for faith-based groups to provide additional resources to homeless contacts on Metro in several ways: hosting Connect Days; partnering with entities that provide necessities (food, shelter, clothing) and providing referral information. Metro invites faith based groups and local nonprofits interested in providing resources to transit located homeless to contact Metro's System Security and Law Enforcement Department.

..Attachments **ATTACHMENTS**

Attachment A - System-Wide Law Enforcement Overview May 2019

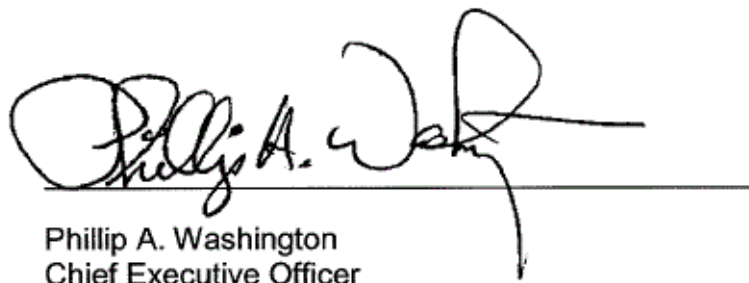
Attachment B - MTA Supporting Data May 2019

Attachment C - Key Performance Indicators May 2019

Attachment D - Transit Police Summary May 2019

Prepared by: Aston T. Greene, Interim Chief, System Security and Law Enforcement,
(213) 922-2599

Reviewed by: Phillip A. Washington, Chief Executive Officer, (213) 922-7555



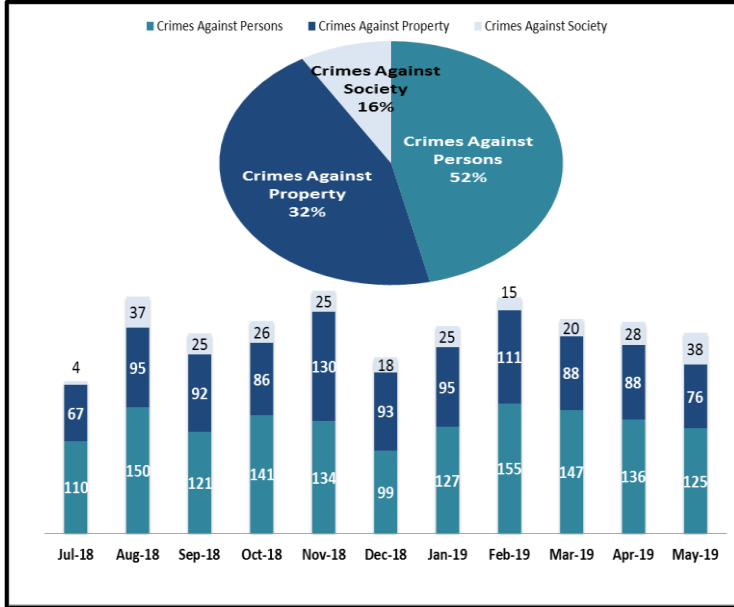
Phillip A. Washington
Chief Executive Officer

SYSTEM-WIDE LAW ENFORCEMENT OVERVIEW

MAY 2019

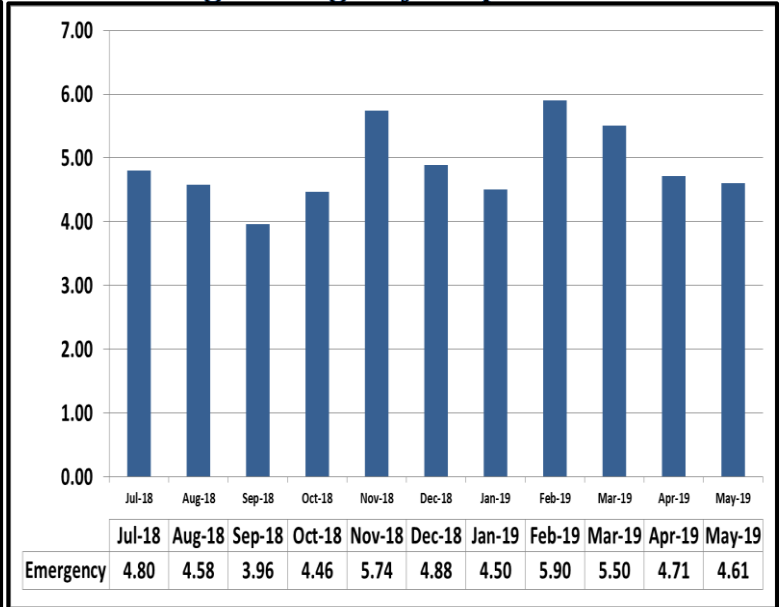
Attachment A

Crimes Against Persons, Property, and Society



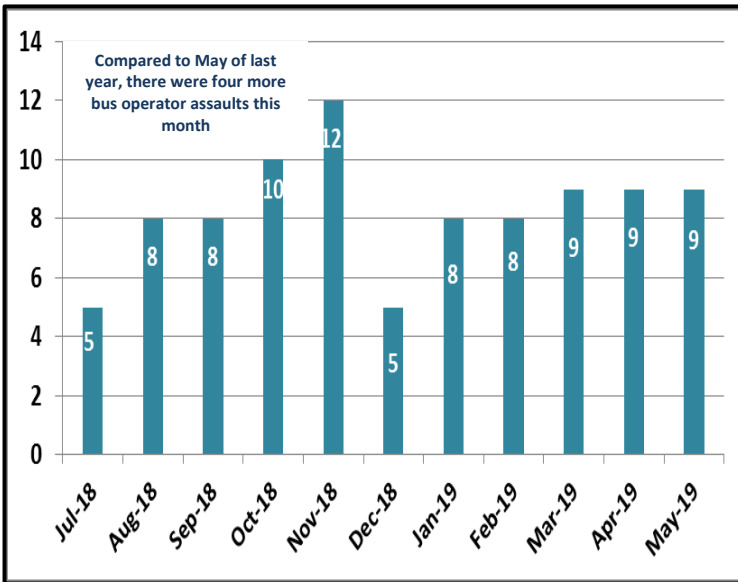
When compared to the same period last year, Crimes Against Persons increased by 9 crimes, Crimes Against Property decreased by 16 crimes, and Crimes Against Society decreased by 10 crimes.

Average Emergency Response Times

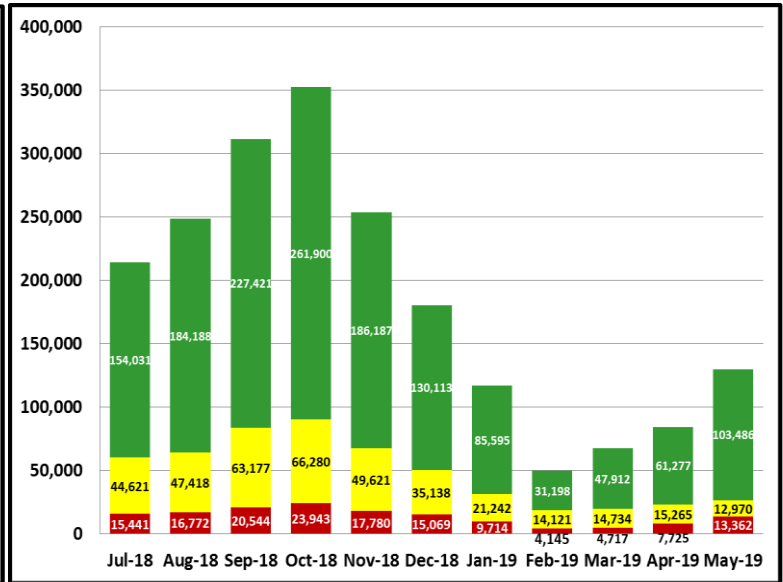


Average emergency response time was 4.61 mins.

Bus Operator Assaults



Fare Compliance



Green Checks- Occurs when a patron has valid fare
Yellow Checks- Occurs when a patron has valid fare, but did not tap at transfer station
Red Checks- Occurs when a patron has invalid fare

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME				
CRIMES AGAINST PERSONS	LAPD	LASD	LBPD	FYTD
Homicide	0	0	0	0
Rape	0	0	0	0
Robbery	1	0	0	46
Aggravated Assault	1	2	1	42
Aggravated Assault on Operator	0	0	0	0
Battery	3	5	0	65
Battery Rail Operator	0	0	0	3
Sex Offenses	1	0	0	8
SUB-TOTAL	6	7	1	164
CRIMES AGAINST PROPERTY	LAPD	LASD	LBPD	FYTD
Burglary	0	0	0	3
Larceny	5	2	0	84
Bike Theft	0	0	0	4
Motor Vehicle Theft	0	0	0	9
Arson	0	0	0	0
Vandalism	0	0	0	17
Other	0	0	0	7
SUB-TOTAL	5	2	0	124
CRIMES AGAINST SOCIETY	LAPD	LASD	LBPD	FYTD
Weapons	0	1	1	17
Narcotics	0	5	0	76
Trespassing	1	1	0	13
SUB-TOTAL	1	7	1	106
TOTAL	12	16	2	394

CRIMES PER STATION				
STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
7th St/Metro Ctr	2	1	0	13
Pico	0	1	0	7
Grand/LATTC	1	0	0	5
San Pedro St	0	0	0	6
Washington	2	1	1	11
Vernon	0	0	0	4
Slauson	0	1	3	14
Florence	1	0	0	18
Firestone	0	1	0	18
103rd St/Watts Towers	2	1	0	17
Willowbrook/Rosa Parks	4	0	3	37
Compton	0	0	1	23
Artesia	1	0	0	11
Del Amo	1	0	0	9
Wardlow	0	0	0	14
Willow St	0	0	0	9
PCH	0	0	0	1
Anaheim St	0	0	0	4
5th St	0	0	0	2
1st St	0	0	0	1
Downtown Long Beach	1	0	1	6
Pacific Av	0	0	0	4
Blue Line Rail Yard	0	0	0	3
Total	15	6	9	237

ARRESTS				
AGENCY	LAPD	LASD	LBPD	FYTD
Felony	6	6	4	198
Misdemeanor	4	44	44	1,107
TOTAL	10	50	48	1,305

CITATIONS				
AGENCY	LAPD	LASD	LBPD	FYTD
Other Citations	13	47	5	1,101
Vehicle Code Citations	10	13	232	1,710
TOTAL	23	60	237	2,811

CALLS FOR SERVICE				
AGENCY	LAPD	LASD	LBPD	FYTD
Routine	4	31	5	572
Priority	31	43	20	1,333
Emergency	1	3	6	443
TOTAL	36	77	31	2,348

DISPATCHED VS. PROACTIVE			
AGENCY	LAPD	LASD	LBPD
Dispatched	22%	2%	1%
Proactive	78%	98%	99%
TOTAL	100%	100%	100%

PERCENTAGE OF TIME ON THE RAIL SYSTEM	
Blue Line-LAPD	85%
Blue Line-LASD	69%
Blue Line-LBPD	0%

GRADE CROSSING OPERATIONS				
LOCATION	LAPD	LASD	LBPD	FYTD
Washington St	80	0	0	779
Flower St	30	0	0	273
103rd St	2	0	0	48
Wardlow Rd	0	0	4	41
Pacific Ave.	0	0	0	1
Willowbrook	0	26	0	353
Slauson	0	3	0	35
Firestone	0	3	0	52
Florence	0	8	0	102
Compton	0	34	0	252
Artesia	0	24	0	175
Del Amo	0	11	0	138
Long Beach Blvd	0	0	0	0
TOTAL	112	109	4	2,249

LEGEND	
Los Angeles Police Department	
Los Angeles County Sheriff's Department	
Long Beach Police Department	

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME			
CRIMES AGAINST PERSONS	LAPD	LASD	FYTD
Homicide	0	0	0
Rape	0	0	1
Robbery	1	1	29
Aggravated Assault	0	1	11
Aggravated Assault on Operator	0	0	0
Battery	0	3	34
Battery Rail Operator	0	0	0
Sex Offenses	0	0	10
SUB-TOTAL	1	5	85
CRIMES AGAINST PROPERTY	LAPD	LASD	FYTD
Burglary	0	0	0
Larceny	3	1	44
Bike Theft	0	0	0
Motor Vehicle Theft	1	0	9
Arson	0	0	0
Vandalism	0	0	12
SUB-TOTAL	4	1	65
CRIMES AGAINST SOCIETY	LAPD	LASD	FYTD
Weapons	0	2	11
Narcotics	0	7	42
Trespassing	0	4	7
SUB-TOTAL	0	13	60
TOTAL	5	19	210

ARRESTS			
AGENCY	LAPD	LASD	FYTD
Felony	0	9	77
Misdemeanor	0	63	407
TOTAL	0	72	484

CITATIONS			
AGENCY	LAPD	LASD	FYTD
Other Citations	0	75	574
Vehicle Code Citations	0	4	127
TOTAL	0	79	701

CALLS FOR SERVICE			
AGENCY	LAPD	LASD	FYTD
Routine	0	135	1,510
Priority	9	79	805
Emergency	2	7	112
TOTAL	11	221	2,427

DISPATCHED VS. PROACTIVE		
AGENCY	LAPD	LASD
Dispatched	19%	6%
Proactive	81%	94%
TOTAL	100%	100%

CRIMES PER STATION				
STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
Redondo Beach	0	1	0	7
Douglas	0	0	0	1
El Segundo	0	0	0	0
Mariposa	0	0	0	5
Aviation/LAX	1	2	0	5
Hawthorne/Lennox	0	0	2	7
Crenshaw	0	0	1	10
Vermont/Athens	0	0	0	11
Harbor Fwy	0	1	0	10
Avalon	0	1	0	14
Willowbrook/Rosa Parks	4	0	5	37
Long Beach BI	1	0	3	24
Lakewood BI	0	0	0	9
Norwalk	0	0	2	12
Total	6	5	13	152

PERCENTAGE OF TIME SPENT ON THE RAIL SYSTEM	
Green Line-LAPD	88%
Green Line-LASD	73%

LEGEND	
Los Angeles Police Department	
Los Angeles County Sheriff's Department	

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME			
CRIMES AGAINST PERSONS	LAPD	LASD	FYTD
Homicide	0	0	0
Rape	0	0	5
Robbery	2	1	41
Aggravated Assault	1	0	22
Aggravated Assault on Operator	0	0	0
Battery	6	2	82
Battery Rail Operator	0	0	0
Sex Offenses	0	1	15
SUB-TOTAL	9	4	165
CRIMES AGAINST PROPERTY	LAPD	LASD	FYTD
Burglary	0	0	2
Larceny	5	1	133
Bike Theft	0	0	25
Motor Vehicle Theft	0	0	0
Arson	0	0	0
Vandalism	0	0	13
SUB-TOTAL	5	1	173
CRIMES AGAINST SOCIETY	LAPD	LASD	FYTD
Weapons	0	0	3
Narcotics	0	0	1
Trespassing	1	0	2
SUB-TOTAL	1	0	6
TOTAL	15	5	344

ARRESTS			
AGENCY	LAPD	LASD	FYTD
Felony	1	1	27
Misdemeanor	25	2	88
TOTAL	26	3	115

CITATIONS			
AGENCY	LAPD	LASD	FYTD
Other Citations	38	1	323
Vehicle Code Citations	21	0	81
TOTAL	59	1	404

CALLS FOR SERVICE			
AGENCY	LAPD	LASD	FYTD
Routine	3	43	525
Priority	44	26	471
Emergency	8	1	45
TOTAL	55	70	1,041

DISPATCHED VS. PROACTIVE		
AGENCY	LAPD	LASD
Dispatched	21%	12%
Proactive	79%	88%
TOTAL	100%	100%

PERCENTAGE OF TIME SPENT ON THE RAIL SYSTEM	
Expo Line-LAPD	85%
Expo Line-LASD	96%

GRADE CROSSING OPERATIONS			
LOCATION	LAPD	LASD	FYTD
Exposition Blvd	113	0	2,241
Santa Monica	0	42	312
Culver City	0	1	33
TOTAL	113	43	2,586

LEGEND	
Los Angeles Police Department	
Los Angeles County Sheriff's Department	

CRIMES PER STATION				
STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
7th St/Metro Ctr	1	0	0	9
Pico	0	0	0	6
LATTC/Ortho Institute	1	0	0	10
Jefferson/USC	1	2	0	19
Expo Park/USC	0	0	0	18
Expo/Vermont	0	0	0	21
Expo/Western	1	1	0	33
Expo/Crenshaw	1	0	0	22
Farmdale	0	0	0	16
Expo/La Brea	0	0	0	16
La Cienega/Jefferson	0	0	0	18
Culver City	0	0	0	7
Palms	1	1	0	8
Westwood/Rancho Park	1	1	0	13
Expo/Sepulveda	2	0	0	12
Expo/Bundy	0	0	1	10
26th St/Bergamot	1	1	0	6
17th St/SMC	0	0	0	6
Downtown Santa Monica	3	0	0	19
Expo Line Rail Yard	0	0	0	0
Total	13	6	1	269

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME

CRIMES AGAINST PERSONS	LAPD	FYTD
Homicide	0	0
Rape	0	3
Robbery	4	59
Aggravated Assault	5	69
Aggravated Assault on Operator	0	1
Battery	16	181
Battery Rail Operator	1	3
Sex Offenses	1	21
SUB-TOTAL	27	337
CRIMES AGAINST PROPERTY	LAPD	FYTD
Burglary	0	0
Larceny	15	188
Bike Theft	0	10
Motor Vehicle Theft	0	0
Arson	0	0
Vandalism	4	14
SUB-TOTAL	19	212
CRIMES AGAINST SOCIETY	LAPD	FYTD
Weapons	0	0
Narcotics	0	0
Trespassing	8	28
SUB-TOTAL	8	28
TOTAL	54	577

ARRESTS

AGENCY	LAPD	FYTD
Felony	35	50
Misdemeanor	94	188
TOTAL	129	238

CITATIONS

AGENCY	LAPD	FYTD
Other Citations	743	1,385
Vehicle Code Citations	91	136
TOTAL	834	1521

CALLS FOR SERVICE

AGENCY	LAPD
Routine	3
Priority	116
Emergency	6
TOTAL	125

DISPATCHED VS. PROACTIVE

AGENCY	LAPD
Dispatched	26%
Proactive	74%
TOTAL	100%

CRIMES PER STATION

STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
Union Station	4	0	3	54
Civic Center/Grand Park	0	0	1	13
Pershing Square	1	3	0	36
7th St/Metro Ctr	3	1	0	42
Westlake/MacArthur Park	6	1	0	52
Wilshire/Vermont	2	1	1	30
Wilshire/Normandie	0	0	0	4
Vermont/Beverly	1	1	1	16
Wilshire/Western	0	0	0	3
Vermont/Santa Monica	2	1	0	23
Vermont/Sunset	0	0	0	15
Hollywood/Western	0	0	0	16
Hollywood/Vine	4	1	0	51
Hollywood/Highland	1	2	0	29
Universal City/Studio City	0	0	0	9
North Hollywood	4	7	2	44
Red Line Rail Yard	0	0	0	0
Total	28	18	8	437

PERCENTAGE OF TIME SPENT ON THE RAIL SYSTEM

Red Line- LAPD	77%
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LEGEND

Los Angeles Police Department

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME			
CRIMES AGAINST PERSONS	LAPD	LASD	FYTD
Homicide	0	0	1
Rape	0	0	1
Robbery	0	1	11
Aggravated Assault	0	0	15
Aggravated Assault on Operator	0	0	0
Battery	3	0	31
Battery Rail Operator	0	0	0
Sex Offenses	0	0	4
SUB-TOTAL	3	1	63
CRIMES AGAINST PROPERTY	LAPD	LASD	FYTD
Burglary	0	0	1
Larceny	0	2	36
Bike Theft	0	2	12
Motor Vehicle Theft	0	1	10
Arson	0	0	1
Vandalism	0	1	12
SUB-TOTAL	0	6	72
CRIMES AGAINST SOCIETY	LAPD	LASD	FYTD
Weapons	0	0	1
Narcotics	0	2	6
Trespassing	0	0	1
SUB-TOTAL	0	2	8
TOTAL	3	9	143

ARRESTS			
AGENCY	LAPD	LASD	FYTD
Felony	1	1	22
Misdemeanor	1	25	100
TOTAL	2	26	122

CITATIONS			
AGENCY	LAPD	LASD	FYTD
Other Citations	5	37	240
Vehicle Code Citations	0	8	105
TOTAL	5	45	345

CALLS FOR SERVICE			
AGENCY	LAPD	LASD	FYTD
Routine	1	59	690
Priority	39	118	1,161
Emergency	5	7	108
TOTAL	45	184	1,959

DISPATCHED VS. PROACTIVE		
AGENCY	LAPD	LASD
Dispatched	19%	3%
Proactive	81%	97%
TOTAL	100%	100%

CRIMES PER STATION				
STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
APU/Citrus College	0	2	1	16
Azusa Downtown	0	0	0	1
Irwindale	0	0	0	3
Duarte/City of Hope	1	0	0	7
Monrovia	0	1	0	6
Arcadia	0	0	0	4
Sierra Madre Villa	0	1	0	8
Allen	0	0	0	0
Lake	0	0	1	4
Memorial Park	0	0	1	4
Del Mar	0	0	0	1
Fillmore	0	0	0	3
South Pasadena	0	0	0	0
Highland Park	1	0	0	4
Southwest Museum	0	0	0	5
Heritage Square	0	0	0	2
Lincoln/Cypress	0	0	0	5
Chinatown	0	0	0	1
Union Station	0	0	0	6
Little Tokyo/Arts Dist	2	0	0	4
Pico/Aliso	0	0	0	4
Mariachi Plaza	0	0	0	8
Soto	0	0	0	3
Indiana (both LAPD & LASD)	0	0	0	6
Maravilla	0	0	0	0
East LA Civic Ctr	0	0	0	1
Atlantic	0	1	0	11
Total	4	5	3	117

PERCENTAGE OF TIME SPENT ON THE RAIL SYSTEM	
Gold Line-LAPD	87%
Gold Line-LASD	61%

GRADE CROSSING OPERATIONS			
LOCATION	LAPD	LASD	FYTD
Marmion Way	123	0	1,698
Arcadia Station	0	5	50
Irwindale	0	5	28
Monrovia	0	9	71
City of Pasadena	0	17	297
Magnolia Ave	0	0	0
Duarte Station	0	6	25
City Of Azusa	0	5	88
South Pasadena	0	15	110
City Of East LA	0	11	136
Figueroa St	113	0	591
TOTAL GOAL= 10	236	73	3,094

LEGEND	
Los Angeles Police Department	
Los Angeles County Sheriff's Department	

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME		
CRIMES AGAINST PERSONS	LAPD	FYTD
Homicide	0	0
Rape	0	0
Robbery	0	8
Aggravated Assault	2	13
Aggravated Assault on Operator	0	1
Battery	2	12
Battery Bus Operator	0	2
Sex Offenses	2	2
SUB-TOTAL	6	38
CRIMES AGAINST PROPERTY	LAPD	FYTD
Burglary	0	0
Larceny	1	17
Bike Theft	0	3
Motor Vehicle Theft	0	0
Arson	0	0
Vandalism	0	11
SUB-TOTAL	1	31
CRIMES AGAINST SOCIETY	LAPD	FYTD
Weapons	0	0
Narcotics	0	0
Trespassing	0	0
SUB-TOTAL	0	0
TOTAL	7	69

ARRESTS		
AGENCY	LAPD	FYTD
Felony	1	5
Misdemeanor	2	18
TOTAL	3	23

CITATIONS		
AGENCY	LAPD	FYTD
Other Citations	428	3,813
Vehicle Code Citations	249	2,976
TOTAL	677	6,789

CALLS FOR SERVICE		
AGENCY	LAPD	FYTD
Routine	0	0
Priority	7	7
Emergency	1	1
TOTAL	8	8

DISPATCHED VS. PROACTIVE	
AGENCY	LAPD
Dispatched	14%
Proactive	86%
TOTAL	100%

PERCENTAGE OF TIME SPENT ON THE BUS SYSTEM	
Orange Line- LAPD	87%

LEGEND	
Los Angeles Police Department	

CRIMES PER STATION				
STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
North Hollywood	1	1	0	7
Laurel Canyon	0	0	0	0
Valley College	0	0	0	0
Woodman	0	0	0	3
Van Nuys	3	0	0	12
Sepulveda	0	0	0	2
Woodley	0	0	0	1
Balboa	1	0	0	10
Reseda	0	0	0	5
Tampa	0	0	0	0
Pierce College	0	0	0	0
De Soto	0	0	0	1
Canoga	1	0	0	9
Warner Center	0	0	0	0
Sherman Way	0	0	0	1
Roscoe	0	0	0	0
Nordhoff	0	0	0	1
Chatsworth	0	0	0	1
Total	6	1	0	53

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME			
CRIMES AGAINST PERSONS	LAPD	LASD	FYTD
Homicide	0	0	0
Rape	0	0	0
Robbery	1	0	4
Aggravated Assault	0	0	3
Aggravated Assault on Operator	0	0	0
Battery	0	0	6
Battery Bus Operator	0	0	0
Sex Offenses	0	0	0
SUB-TOTAL	1	0	13
CRIMES AGAINST PROPERTY	LAPD	LASD	FYTD
Burglary	0	0	0
Larceny	1	0	4
Bike Theft	0	0	2
Motor Vehicle Theft	0	0	0
Arson	0	0	0
Vandalism	0	0	3
SUB-TOTAL	1	0	9
CRIMES AGAINST SOCIETY	LAPD	LASD	FYTD
Weapons	0	0	0
Narcotics	0	0	0
Trespassing	0	0	0
SUB-TOTAL	0	0	0
TOTAL	2	0	22

ARRESTS			
AGENCY	LAPD	LASD	FYTD
Felony	0	0	7
Misdemeanor	0	1	28
TOTAL	0	1	35

CITATIONS			
AGENCY	LAPD	LASD	FYTD
Other Citations	439	0	3,818
Vehicle Code Citations	340	0	3,660
TOTAL	779	0	7,478

CALLS FOR SERVICE			
AGENCY	LAPD	LASD	FYTD
Routine	2	0	6
Priority	5	0	28
Emergency	3	0	9
TOTAL	10	0	43

DISPATCHED VS. PROACTIVE		
AGENCY	LAPD	LASD
Dispatched	12%	0%
Proactive	88%	100%
TOTAL	100%	100%

CRIMES PER STATION				
STATION	CRIMES AGAINST PERSONS	CRIMES AGAINST PROPERTY	CRIMES AGAINST SOCIETY	FYTD
El Monte	0	0	0	0
Cal State LA	0	0	0	0
LAC/USC Medical Ctr	0	0	0	0
Alameda	0	0	0	0
Downtown	0	0	0	1
37th St/USC	0	0	0	1
Slauson	0	0	0	1
Manchester	0	1	0	2
Harbor Fwy	0	0	0	3
Rosecrans	0	0	0	1
Harbor Gateway Transit Ctr	1	0	0	3
Carson	0	0	0	0
PCH	0	0	0	2
San Pedro/Beacon	0	0	0	1
Total	1	1	0	15

PERCENTAGE OF TIME SPENT ON THE BUS SYSTEM	
Silver Line- LAPD	91%
Silver Line- LASD	83%

LEGEND	
Los Angeles Police Department	
Los Angeles County Sheriff's Department	

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME			
CRIMES AGAINST PERSONS	LAPD	LASD	FYTD
Homicide	0	0	0
Rape	0	0	0
Robbery	11	1	100
Aggravated Assault	4	1	82
Aggravated Assault on Operator	0	1	14
Battery	14	4	226
Battery Bus Operator	4	3	69
Sex Offenses	3	1	39
SUB-TOTAL	36	11	530
CRIMES AGAINST PROPERTY	LAPD	LASD	FYTD
Burglary	0	0	2
Larceny	20	4	211
Bike Theft	0	1	25
Motor Vehicle Theft	0	0	2
Arson	0	0	0
Vandalism	1	3	39
SUB-TOTAL	21	8	279
CRIMES AGAINST SOCIETY	LAPD	LASD	FYTD
Weapons	0	0	10
Narcotics	0	5	48
Trespassing	0	0	7
SUB-TOTAL	0	5	65
TOTAL	57	24	874

LASD's Crimes per Sector		
Sector		FYTD
Westside	1	20
San Fernando	1	4
San Gabriel Valley	5	20
Gateway Cities	5	36
South Bay	12	48
Total	24	128

LAPD's Crimes per Sector		
Sector		FYTD
Valley Bureau		
Van Nuys	1	11
West Valley	0	4
North Hollywood	1	10
Foothill	0	4
Devonshire	3	6
Mission	2	7
Topanga	1	10
Central Bureau		
Central	6	52
Rampart	0	26
Hollenbeck	2	8
Northeast	0	7
Newton	8	31
West Bureau		
Hollywood	3	12
Wilshire	3	32
West LA	0	16
Pacific	0	N/A
Olympic	4	43
Southwest Bureau		
Southwest	6	93
Harbor	1	4
77th Street	11	88
Southeast	5	16
Total	57	480

ARRESTS			
AGENCY	LAPD	LASD	FYTD
Felony	1	8	78
Misdemeanor	6	60	425
TOTAL	7	68	503

CITATIONS			
AGENCY	LAPD	LASD	FYTD
Other Citations	28	66	501
Vehicle Code Citations	0	41	293
TOTAL	28	107	794

CALLS FOR SERVICE			
AGENCY	LAPD	LASD	FYTD
Routine	3	98	1,173
Priority	16	128	2,117
Emergency	3	19	238
TOTAL	22	245	3,528

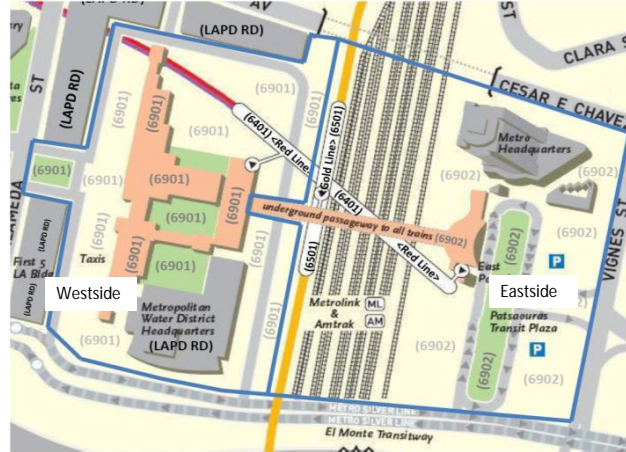
DISPATCHED VS. PROACTIVE		
AGENCY	LAPD	LASD
Dispatched	38%	2%
Proactive	62%	98%
TOTAL	100%	100%

PERCENTAGE OF TIME SPENT ON THE BUS SYSTEM	
LAPD BUS	86%
LASD BUS	77%

LEGEND	
Los Angeles Police Department	
Los Angeles County Sheriff's Department	

MONTHLY UPDATE ON TRANSIT POLICING PERFORMANCE - MAY 2019

REPORTED CRIME		
CRIMES AGAINST PERSONS	LAPD	FYTD
Homicide	0	0
Rape	0	0
Robbery	1	7
Aggravated Assault	0	19
Aggravated Assault on Operator	0	0
Battery	5	46
Battery Rail Operator	0	0
Sex Offenses	1	9
SUB-TOTAL	7	81
CRIMES AGAINST PROPERTY	LAPD	FYTD
Burglary	0	2
Larceny	1	67
Bike Theft	0	6
Motor Vehicle Theft	0	0
Arson	0	0
Vandalism	1	11
SUB-TOTAL	2	86
CRIMES AGAINST SOCIETY	LAPD	FYTD
Weapons	0	0
Narcotics	0	0
Trespassing	0	12
SUB-TOTAL	0	12
TOTAL	9	179



ARRESTS		
AGENCY	LAPD	FYTD
Felony	2	33
Misdemeanor	4	89
TOTAL	6	122

CITATIONS		
AGENCY	LAPD	FYTD
Other Citations	21	113
Vehicle Code Citations	5	31
TOTAL	26	144

CALLS FOR SERVICE		
AGENCY	LAPD	FYTD
Routine	4	4
Priority	43	43
Emergency	7	7
TOTAL	54	54

DISPATCHED VS. PROACTIVE	
AGENCY	LAPD
Dispatched	23%
Proactive	77%
TOTAL	100%

PERCENTAGE OF TIME SPENT AT UNION STATION	
LOCATION	LAPD
Union Station	83%

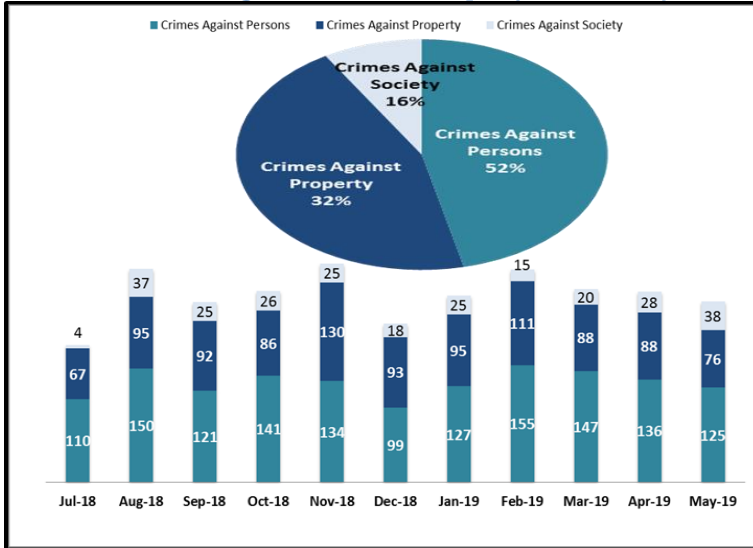
LEGEND	
Los Angeles Police Department	

KEY PERFORMANCE INDICATORS

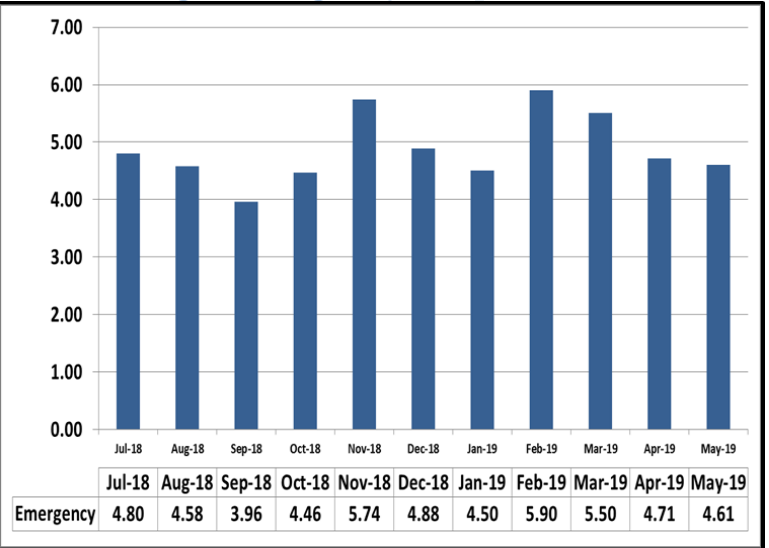
MAY 2019

Attachment C

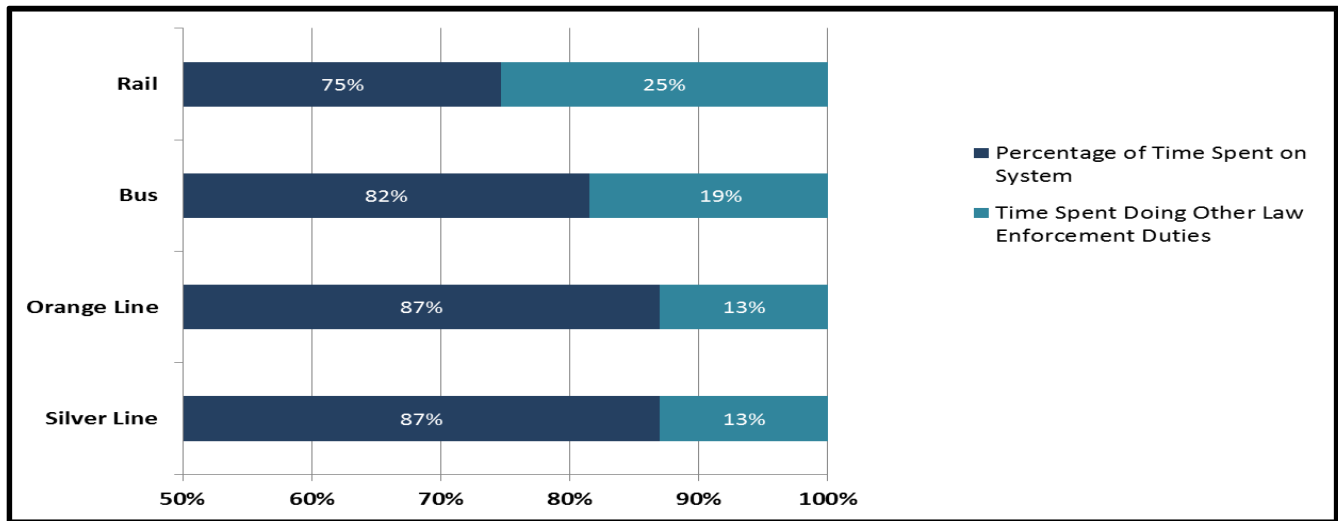
Crimes Against Persons, Property, and Society



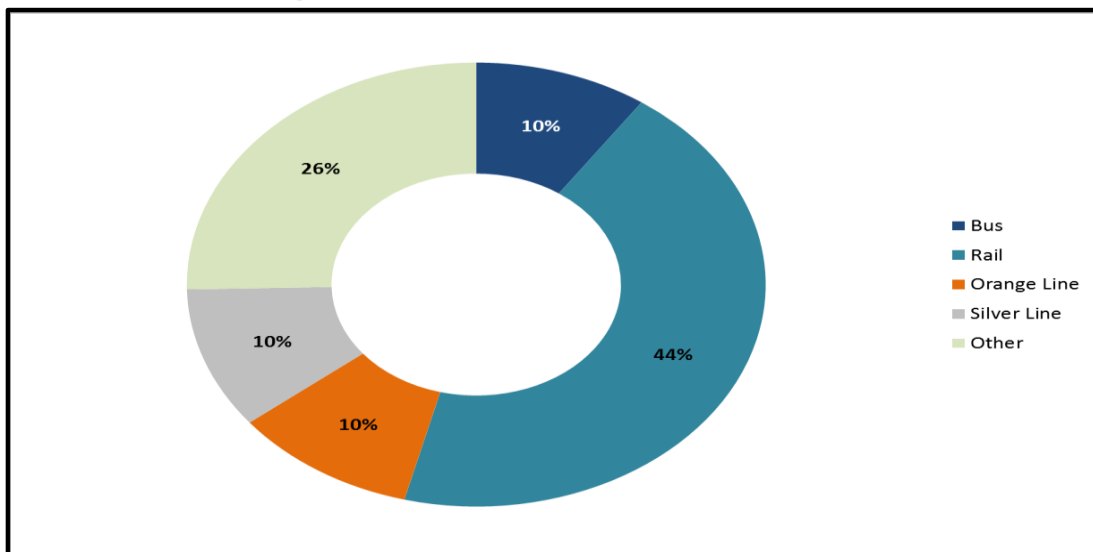
Average Emergency Response Times



Percentage of Time Spent on the System



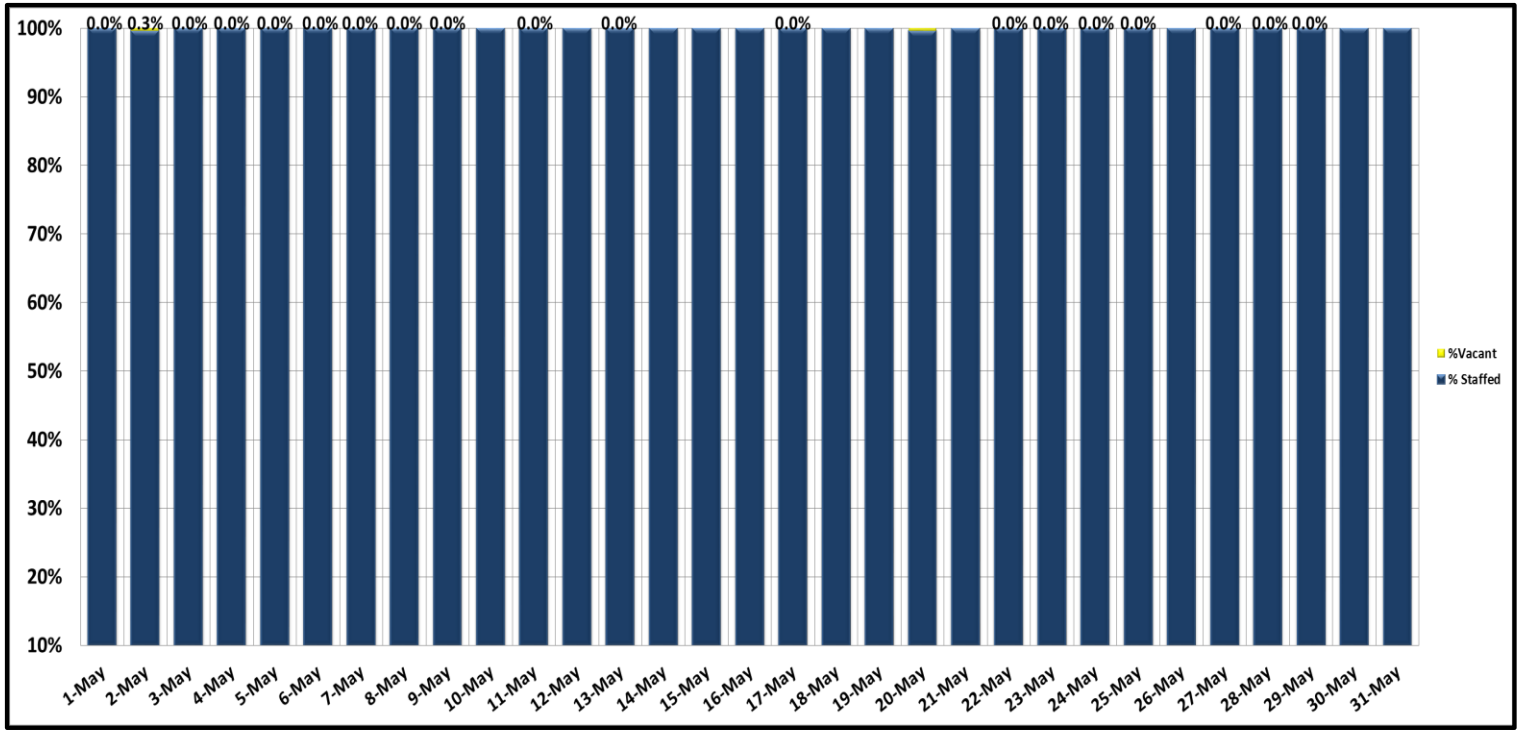
Percentage of Time Spent on the System as a Whole



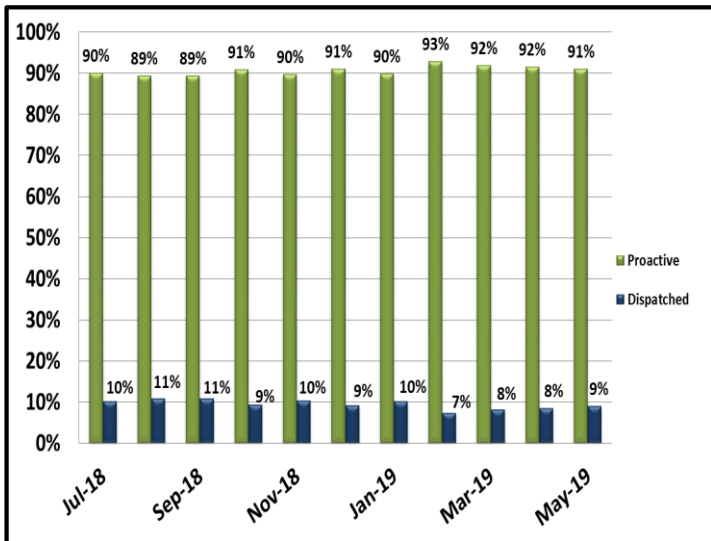
KEY PERFORMANCE INDICATORS

MAY 2019

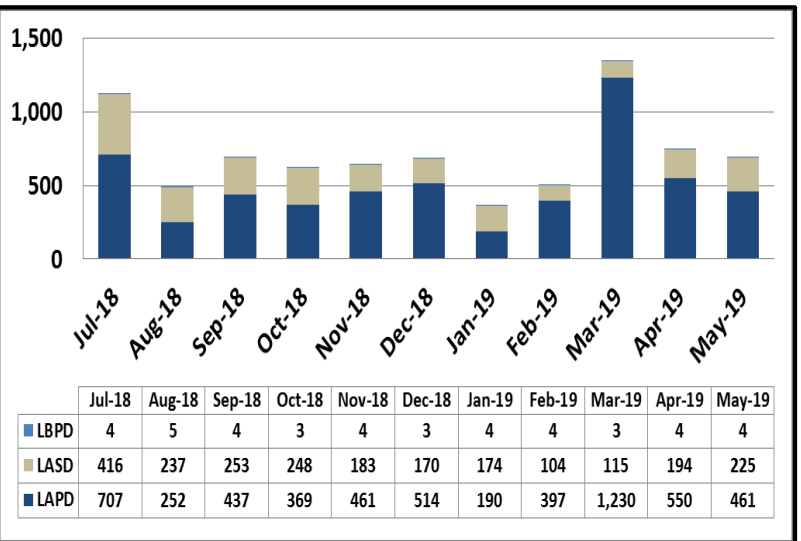
Ratio of Staffing Levels vs Vacant Assignments



Ratio of Proactive vs Dispatched Activity



Grade Crossing Operations



Grade Crossing Operation Locations May:

1. Blue Line Stations (225)
2. Expo Line Stations (156)
3. Gold Line Stations (309)

Transit Police

Monthly Crime Report



Attachment D

	2018	2019
	May	May
CRIMES AGAINST PERSONS		
Homicide	0	0
Rape	3	0
Robbery	19	25
Aggravated Assault	13	18
Aggravated Assault on Operator	0	1
Battery	63	63
Battery Rail Operator	5	8
Sex Offenses	13	10
SUB-TOTAL	116	125
CRIMES AGAINST PROPERTY		
Burglary	0	0
Larceny	69	61
Bike Theft	7	3
Motor Vehicle Theft	1	2
Arson	0	0
Other	0	0
Vandalism	15	10
SUB-TOTAL	92	76
CRIMES AGAINST SOCIETY		
Weapons	9	4
Narcotics	26	19
Trespassing	13	15
SUB-TOTAL	48	38
TOTAL	256	239
ENFORCEMENT EFFORTS		
Arrests	271	451
Citations	1,694	2,960
Fare Checks	280,585	129,818
Calls for Service	1,501	1,194



Board Report

File #: 2019-0208, File Type: Contract

Agenda Number: 43.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JULY 18, 2019**

SUBJECT: METRO FREEWAY SERVICE PATROL**ACTION: APPROVE RECOMMENDATIONS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to:

- A. AWARD a firm fixed unit rate Contract No. FS58039000 for Metro Freeway Service Patrol (FSP) Regional light duty towing services Region 1 to Kenny's Auto Service, in an amount not to exceed \$20,936,369 for 52 months, subject to resolution of protest(s), if any; and,
- B. AWARD a firm fixed unit rate Contract No. FS58039001 for Metro Freeway Service Patrol (FSP) regional light duty towing services Region 2 to Platinum Tow and Transport in an amount not to exceed \$24,006,823 for 52 months, subject to resolution of protest(s), if any; and,
- C. INCREASE Contract Modification Authority (CMA) to 29 existing Freeway Service Patrol contracts as delineated below for a total amount of \$14,521,000 thereby increasing the CMA amount from \$11,161,294 to \$25,682,294 and extend the periods of performance as follows:
- Beat no. 1: All City Tow Contract No. FSP2828200FSP141, for \$219,000 for 8 months
 - Beat no. 2: Citywide Towing Contract No. FSP2785600FSP142, for \$258,000 for 9 months
 - Beat no. 3: Hollywood Car Carrier Contract No. FSP3469400B3/43, for \$849,000 for 9 months
 - Beat no. 4: Frank Scotto Towing Contract No. FSP2788200FSP144, for \$237,000 for 9 months
 - Beat no. 5: Sonic Towing, Inc. Contract No. FSP3469500B5/17, for \$320,000 for 11 months
 - Beat no. 6: Neighborhood Towing 4 U Contract No. FSP3469600B6, for \$338,000 for 11 months
 - Beat no. 8: Citywide Towing Contract No. FSP2825800FSP148, for \$293,000 for 9 months
 - Beat no. 9: Frank Scotto Towing Contract No. FSP3470000B9, for \$394,000 for 11 months
 - Beat no. 10: Neighborhood Towing 4 U Contract No. FSP3848100FSP1410, for \$365,000 for 12 months
 - Beat no. 12: Tip Top Tow Contract No. FSP2826700FSP14, for \$796,000 for 12 months
 - Beat no. 13: Reliable Delivery Service Contract No. FSP2831500FSP1413, for \$440,000 for 7

months

- Beat no. 17: Sonic Towing, Inc. Contract No. FSP3469500B5/17, for \$241,000 for 9.5 months
- Beat no. 18: Bob & Dave's Towing, Inc. Contract No. FSP2690300FSP1418, for \$695,000 for 14.5 months
- Beat no. 20: Bob's Towing Contract No. FSP2836600FSP1420, for \$211,000 for 12 months
- Beat no. 21: Bob's Towing Contract No. FSP2839000FSP1421, for \$153,000 for 12 months
- Beat no. 24: T.G. Towing, Inc. Contract No. FSP2833200FSP1424, for \$275,000 for 11

months

- Beat no. 28: Hadley Tow Contract No. FSP3847300FSP1428, for \$99,000 for 11 months
- Beat no. 33: Mid Valley Towing Contract No. FSP2851900FSP1433, for \$266,000 for 9

months

- Beat no. 34: South Coast Towing, Inc. Contract No. FSP2839600FSP1434, for \$292,000 for 11 months
- Beat no. 36: Hadley Tow Contract No. FSP2841400FSP1436, for \$288,000 for 11 months
- Beat no. 37: Reliable Delivery Service Contract No. FSP3696000FSP1437, for \$690,000 for 11 months

- Beat no. 38: Steve's Towing Contract No. FSP38468001438, for \$106,000 for 11 months

- Beat no. 39: Jon's Towing Contract No. FSP3470400B27/39, for \$253,000 for 9.5 months

- Beat no. 41: T.G. Towing, Inc. Contract No. FSP2760200144, for \$322,000 for 8 months

- Beat no. 42: Platinum Tow & Transport Contract No. FSP2842100FSP1442, for \$290,000 for 11 months

- Beat no. 43: Hollywood Car Carrier Contract No. FSP3469400B3/43, for \$828,000 for 9.5 months

- Beat no. 70: Tip Top Tow Contract No. FSP3471300B70, for \$920,000 for 7 months

- Beat no. 71: Bob & Dave's Towing, Inc. Contract No. FSP3471500B71, for \$932,000 for 6 months

- Region 1: Kenny's Auto Service Contract No. FSP13-R1, for \$3,151,000 for 9 months

ISSUE

Based on the success of the regional approach as demonstrated with the first regional beat, staff is recommending the award of two FSP Regional light duty tow service contracts (Regions 1 & 2). The Region 1 contract award will replace the expiring Region 1 contract. The Region 2 contract award will expand the FSP Regional format from a single region to two (2) regions. Region 2 consolidates six (6) FSP beats in and around the central downtown Los Angeles freeway corridor into a single regional contract. A single contractor managing the FSP service in this area will have the flexibility to more quickly and efficiently respond to congestion due to incidents consistent with the Region 1 experience.

Recommendation C authorizes contract modification authority (CMA) in the amount of \$14,521,000 to execute contract modifications to existing FSP light duty tow service contracts. Additional funds are needed to extend and replenish existing FSP contracts, in anticipation of the phased startup of the two multi-beat Regional contracts (Recommendations A & B) and the award and startup of

sixteen (16) individual beat contracts in Q3 FY2020.

To ensure the largest pool of prospective proposers for the Regions, it was necessary to procure the Regional contracts before the individual beat contracts to avoid the contract cap limits required to ensure optimal service. Extending the period of performance will ensure seamless and efficient operation of the FSP program during the initial contract mobilization phase of the new Regional contracts where contractors order trucks to be built to Metro FSP specifications, hire and train drivers, contract with various sub-contractors and outfit their vehicles with the appropriate equipment at Metro's radio shop. Increased CMA will also provide funds to address increased operating costs such as insurance and fuel and will also replenish funding to contracts that provide support to Caltrans construction projects through a Cooperative Agreement. The FSP program currently expends up to \$75,000 each month to support Caltrans construction projects.

BACKGROUND

FSP is a congestion mitigation program managed in partnership with Metro, CHP and Caltrans serving motorists on all major freeways in Los Angeles County. The Los Angeles County FSP program has the highest benefit to cost ratio of all the statewide FSP programs.

The program utilizes a fleet of roving tow and service trucks designed to reduce traffic congestion by efficiently rendering disabled vehicles operational or by quickly towing those vehicles from the freeway to a designated safe location. Quick removal of motorists and their disabled vehicles from the freeway reduces the chances of further incidents caused by onlookers and impatient drivers. FSP helps save fuel and reduce air polluting emissions by reducing stop-and-go traffic. The service is free to motorists and operates seven days a week during peak commuting hours.

Metro contracts with independent tow service providers for light duty tow service on general purpose lanes on all major freeways in Los Angeles County, 2 light duty contracts on the ExpressLanes (I-110 and I-10), and 2 heavy duty (Big Rig) contracts (I-710 and SR-91). Each weekday, 170 tow and service trucks are deployed during peak commuting hours.

The annual benefit of the program is as follows:

- For individual beats, an annual Benefit to Cost Ratio of 10:1 - For every \$1 spent there is a \$10 benefit to motorists.
- 300,000 motorist assists
- 9,847,881,840 hours motorists saved from sitting in traffic
- 16,928,508 gallons of fuel savings
- Approximately 150,000,000 kg of CO2 reductions
- The average motorist wait time for FSP service is 7 minutes (the average wait time for AAA service is over 30 minutes)
- The Los Angeles County FSP program generates one-half of the cumulative benefits of the 14 FSP programs in the state.

DISCUSSION

The regional concept was introduced to improve performance, control program costs, and enhance the ability to actively conduct incident response in a large geographic area. The concept divided the FSP service area into six geographic regions. Each region would be comprised of six individual FSP light duty tow service beats with the contract awarded to a single vendor. The first FSP Regional contract (Region 1) was awarded on January 23, 2014. An evaluation of Region 1 was conducted and completed in August 2017 to assess the impacts and benefits of the regional approach. The evaluation focused on three general areas: 1) performance, 2) program efficiency and 3) operational effectiveness.

To evaluate Region 1 performance, various data sources were used including; FSP Assist information, FSP contract information, Caltrans FSP statewide annual report, and Caltrans PeMS. Metrics such as assists per vehicle hour, percentage of time assisting motorists, cost per assist and benefit to cost ratio were utilized to evaluate potential differences between a single contract per beat and a regional beat. Within each performance category, Region 1 consistently outperformed all other contracts on every metric. The Benefit-to-Cost Ratio is one of the Key Performance Indicators used by Metro and Caltrans to measure the success of the FSP program. Region 1 performed at a 17.2:1 ratio which is 7 points higher than the FSP program's overall ratio of 10:1 (Metro's program is the top performing program in the state).

In terms of program efficiency, the evaluation revealed that by consolidating 6 beats into one region under a single contract, the contractor was able to leverage the large number of vehicles (25 tow and service vehicles) to negotiate volume discounts on vehicle prices, parts and equipment. As anticipated, the implementation of Region 1 reduced the administrative workload. This provided the opportunity to focus on operations and program performance. As a result, the Los Angeles County FSP program has been the most cost effective program in the state for the past two years.

The evaluation also identified operational efficiencies associated with the regional approach in terms of the contractor's ability to manage and motivate employees to exceed past beat performance, properly maintain and repair 25 contracted vehicles, and keep contract violation assessments to a bare minimum. This allowed program management staff and FSP CHP field supervision to focus their efforts in other areas of the FSP service area (communications system development).

Based on the benefits of the first regional beat, staff recommends award of a new contract for Region 1 which is expiring and award of an additional contract for a second region (Region 2). Staff will evaluate Region 2's operations and performance in a similar fashion as was done for Region 1.

DETERMINATION OF SAFETY IMPACT

The FSP Program enhances safety on Los Angeles County freeways by assisting motorists with disabled vehicles, towing vehicles from freeway lanes to prevent secondary accidents, and removing debris/obstacles from lanes that can be a hazard to motorists. During FSP operating hours, drivers provide specific services to motorists with disabled vehicles to get them safely back on the road or tow them to a designated safe location off of the freeway. FSP drivers patrolling their Beat locate and assist motorists in freeway lanes or along the shoulder significantly faster than it would take to call a private tow service. The

FSP Program completes approximately 300,000 assists annually.

FINANCIAL IMPACT

The amount of \$14,521,000 for CMA, and first year startup and operational costs of \$5,255,583 for Region 1 and \$5,497,288 for Region 2 is included in the FY20 budget in cost center 3352, Metro Freeway Service Patrol, under project number 300070. Since this action includes multi-year contracts, the cost center manager and Executive Officer, Congestion Reduction will be responsible for budgeting funds in future years.

Impact to Budget

The FSP program is funded through a combination of dedicated state funds, SB1 funding and Proposition C 25% sales tax. These funds are not eligible for Metro Bus and Rail Operating and Capital expenses. Metro is also reimbursed for the services provided to support Caltrans construction projects.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The FSP Program aligns with Strategic **Goal 1: Provide high quality mobility options that enable people to spend less time traveling.** The program mitigates congestion on all major freeways in Los Angeles County.

ALTERNATIVES CONSIDERED

The Board may decide not to award the contracts or authorize the increase in contract modification authority. This alternative is not recommended as it will adversely impact the existing contracts and the level and quality of FSP service provided in Los Angeles County.

NEXT STEPS

Upon Board approval, staff will execute the necessary contracts to assure efficient and seamless delivery of the FSP program.

ATTACHMENTS

Attachment A - Procurement Summary (Region 1 and Region 2)

Attachment B - Procurement Summary (Various Beats)

Attachment C - Contract Modification Authority Summary


Attachment D - Contract Modification/Change Order Log

Attachment E - DEOD Summary

Attachment F - FSP Regional Beat Map

Prepared by: John Takahashi, Senior Highway Operations Manager, (213) 418-3271

Reviewed by: Shahrzad Amiri, Executive Officer, Congestion Reduction, (213) 922-3061
Debra Avila, Chief Vendor/Contract Management, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**FSP LIGHT DUTY TOWING-REGION 1 AND REGION 2
FS58039000, FS58039001**

1.	Contract Numbers: FS58039000, FS58039001	
2.	Recommended Vendors: Kenny's Auto Service #II-Region 1 Platinum Tow and Transport-Region 2	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: December 13, 2018	
	B. Advertised/Publicized: December 14, 2018	
	C. Pre-Proposal Conference: December 20, 2018	
	D. Proposals Due: January 28, 2019	
	E. Pre-Qualification Completed: June 27, 2019	
	F. Conflict of Interest Form Submitted to Ethics: May 10, 2019	
	G. Protest Period End Date: July 29, 2019	
5.	Solicitations Picked up/ Downloaded: 36	Proposals Received: 10
6.	Contract Administrator: DeValory Donahue	Telephone Number: (213) 922-4726
7.	Project Manager: John Takahashi	Telephone Number: (213) 418-3271

A. Procurement Background

This Board Action is to award Contract No. FS58039000 to Kenny's Auto Service #II (Region 1) and Contract No. FS58039001 to Platinum Tow and Transport (Region 2), in support of FSP Light Duty Towing Services for highways in Los Angeles County. Board approval of contract awards are subject to the resolution of any properly submitted protest.

This Freeway Service Patrol Request for Proposal (RFP) to award two regional contracts was issued in accordance with Metro's Acquisition Policy. The RFP was issued with an SBE/DVBE goal of 10% (SBE 7% and DVBE 3%). The contract type is a firm fixed hourly rate. The RFP allowed firms to propose on Regions 1 and 2; however, a firm could only be awarded one Region contract.

The RFP was advertised as a medium-sized business enterprise preference for medium-size businesses whose proposals would be considered first. However, none of the firms that submitted a proposal designated themselves as a medium sized business enterprise.

Two amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on January 7, 2019, revised Exhibit B, Exhibit 1-Form 4, Exhibit 4, and Exhibit 11.1.

- Amendment No. 2, issued on January 10, 2019, revised Exhibit A and Exhibit H-1.1.

A pre-proposal conference was held on December 20, 2018, and was attended by 39 participants representing 24 companies. There were 21 questions asked and responses were released prior to the proposal due date.

A total of 36 firms downloaded the RFP and were included in the planholders' list. A total of ten proposals were received on January 28, 2019.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET), consisting of staff from Metro Highway Programs and California Highway Patrol, was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

- | | |
|--------------------------------------|------------|
| • Capability and Relevant Experience | 20 percent |
| • Business Plan | 20 percent |
| • Facility Visit | 10 percent |
| • Vehicle Inspection | 10 percent |
| • Price | 30 percent |
| • Partnering with Small Business | 10 percent |

The evaluation criteria are appropriate and consistent with criteria developed for other, similar highway towing service procurements. Several factors were considered when developing these weights, giving the greatest importance to price.

From February 8, 2019 through April 18, 2019, the PET completed its independent evaluation of the proposals. Of the ten proposals received, four were considered responsive. The PET determined that one of the four responsive firms was outside the competitive range and therefore, not included for further consideration as it did not adequately address the requirements of the RFP. As part of the RFP requirements, firms were required to meet the established SBE/DVBE goal of 10%. Six firms did not achieve this goal and were considered non-responsive.

The firms within the competitive range for awards in both regions are listed below in alphabetical order:

1. Freeway Towing, Inc.
2. Kenny's Auto Service, #II
3. Platinum Tow and Transport, Inc.

Qualifications of Firms Within the Competitive Range

Kenny's Auto Service, #II

Kenny's Auto Service conducted a towing pilot for FSP light duty towing Region 1 and are current providers of towing services. Their proposal and site visit demonstrated extensive knowledge in providing towing services for the region. They are a certified SBE and all vehicles designated for use in this region passed inspection. They proposed 20 drivers that would be dedicated to Metro towing with seven back-up drivers. Kenny's Auto Service will have the Director of Operations to serve as the Project Administrator along with the Deputy Administrator for the FSP program.

Platinum Tow and Transport, Inc.

Platinum Tow and Transport's proposal and site visit reflected the ability to execute the requirements for the Metro FSP towing program. They are a certified SBE. Their records management was organized and the towing yard was clean. All designated vehicles passed inspection and 37 drivers, along with four administrative personnel, will support the FSP project. Platinum Tow and Transport will provide three project managers to support the FSP Regional Towing contract.

Freeway Towing, Inc.

Freeway Towing is a current Metro FSP Big Rig Contractor. They have been in business for 31 years. Their proposal reflected good organization skills with a designated FSP manager and assistant manager. They proposed ten drivers designated for FSP only and they have been on the advisory committee for AAA Motor Club for 20 years.

Following is a summary of the PET evaluations scores by region:

REGION 1

	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
	Kenny's Auto Service, #II				
1	Capability and Relevant Experience	63.35	20.00%	12.67	
2	Business Plan	96.65	20.00%	19.33	
3	Facility Visit	93.30	10.00%	9.33	
4	Vehicle Inspection	100.00	10.00%	10.00	
5	Price	82.94	30.00%	24.88	
6	Partnering With Small Business	50.00	10.00%	5.00	
7	Total		100.00%	81.21	1
	Platinum Tow and Transport, Inc.				
8	Capability and Relevant Experience	64.45	20.00%	12.89	
9	Business Plan	90.00	20.00%	18.00	
10	Facility Visit	100.00	10.00%	10.00	
11	Vehicle Inspection	100.00	10.00%	10.00	

12	Price	70.37	30.00%	21.11	
13	Partnering With Small Business	50.00	10.00%	5.00	
14	Total		100.00%	77.00	2
Freeway Towing Inc.					
15	Capability and Relevant Experience	66.65	20.00%	13.33	
16	Business Plan	71.65	20.00%	14.33	
17	Facility Visit	96.70	10.00%	9.67	
18	Vehicle Inspection	100.00	10.00%	10.00	
19	Price	63.52	30.00%	19.06	
20	Partnering With Small Business	50.00	10.00%	5.00	
21	Total		100.00%	71.39	3

REGION 2

	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
Platinum Tow and Transport, Inc.					
1	Capability and Relevant Experience	64.45	20.00%	12.89	
2	Business Plan	90.00	20.00%	18.00	
3	Facility Visit	100.00	10.00%	10.00	
4	Vehicle Inspection	100.00	10.00%	10.00	
5	Price	100.00	30.00%	30.00	
6	Partnering With Small Business	50.00	10.00%	5.00	
7	Total		100.00%	85.89	1
Freeway Towing, Inc.					
8	Capability and Relevant Experience	66.65	20.00%	13.33	
9	Business Plan	71.65	20.00%	14.33	
10	Facility Visit	96.70	10.00%	9.67	
11	Vehicle Inspection	100.00	10.00%	10.00	
12	Price	90.37	30.00%	27.11	
13	Partnering With Small Business	50.00	10.00%	5.00	
14	Total		100.00%	79.44	2

C. Price Analysis

The recommended NTE amount has been determined to be fair and reasonable based upon an independent cost estimate (ICE), price analysis, technical analysis, and fact finding. The primary difference between the ICE and NTE amounts is future increases in vehicle insurance costs and fuel price fluctuations based on market conditions.

REGION 1

	Proposer Name	Proposal Amount	Metro ICE	NTE amount
1.	Kenny's Auto Service, II	\$20,936,368.98	\$18,867,940	\$20,936,368.98
2.	Platinum Tow and Transport, Inc.	\$24,673,874.68	\$18,867,940	N/A
3.	Freeway Towing, Inc.	\$27,334,857.50	\$18,867,940	N/A

REGION 2

	Proposer Name	Proposal Amount	Metro ICE	NTE amount
1.	Platinum Tow and Transport, Inc.	\$24,006,822.70	\$18,357,850	\$24,006,822.70
2.	Freeway Towing, Inc.	\$26,566,657.50	\$18,357,850	N/A

D. Background on Recommended Contractors

REGION 1

Kenny's Auto Service, #II

Kenny's Auto Service has been conducting business in the Metropolitan area of Los Angeles since 1938. Metro FSP towing certified since 1994, they have a fleet of 24 trucks that service 6 patrol routes and 70 miles of freeway. In addition to the current towing contract with Metro, they are also contracted with the LA County Sheriff's Department, California Highway Patrol and the City of Bellflower. Kenny's has the ability to store 400 vehicles in their state-of-the-art facility and is a member of the Department of Motor Vehicles Pull Notice program.

REGION 2

Platinum Tow and Transport, Inc.

Platinum Tow and Transport, Inc. started the tow business in October 2001 with a single tow truck. They now have a fleet of 39 trucks and operate out of 3 locations in Westlake Village, Camarillo, and Oxnard, California. The fourth location in Canoga Park serves as the depot for the Metro FSP. Services include light, medium, and heavy-duty towing and they have been a continuous partner with Metro since 2004. Existing contracts are with Metro, the Auto Club of Southern California, Los Angeles World Airports, and the California Highway Patrol.

PROCUREMENT SUMMARY

METRO FREEWAY SERVICE PATROL/VARIOUS BEATS

1.	Contract Number: Various, See Attachment C		
2.	Contractor: Various, See Attachment C		
3.	Mod. Work Description: General Redeployment Support, Caltrans Construction, Special Event Support, Service Coverage		
4.	Contract Work Description: Freeway Service Patrol Service		
5.	The following data is current as of: June 28, 2019		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	Various	Contract Award Amount: Various, See Attachment C
	Notice to Proceed (NTP):	N/A	Total of Modifications Approved: Various, See Attachment D
	Original Complete Date:	N/A	Pending Modifications (including this action): Various, See Attachment D
	Current Est. Complete Date:	Various	Current Contract Value (with this action): Various, See Attachment D
7.	Contract Administrator: DeValory Donahue		Telephone Number: (213)-922-4147
8.	Project Manager: John Takahashi		Telephone Number: (213) 418-3271

A. Procurement Background

This Board Action is to approve Contract Modification Authority (CMA) for multiple contracts (see Attachment C-Contract Modification Authority Summary) for towing services in support of the Metro Freeway Service Patrol (FSP) program.

The proposed CMA increase for 29 FSP general purpose lane contracts in the amount of \$14,521,000 will continue required towing services for the FSP program and extend the period of performance to support unanticipated events, redeployment, and support during freeway construction work, and service delivery until new FSP Regional contracts are in place.

Attachment C-Contract Modification Authority Summary shows the list of contracts that require an increase in CMA.

Attachment D – Contract Modification/Change Order Log shows the contract modifications that have been issued to date to twelve contracts and no contract modifications are currently in negotiations or pending.

B. Cost

For contract modifications that are required in the future, prices will be determined fair and reasonable based upon independent cost estimate, fact-finding, technical analysis, and negotiations.

**ATTACHMENT C
CONTRACT MODIFICATION AUTHORITY (CMA) SUMMARY**

**METRO FREEWAY SERVICE PATROL
TOWING SERVICES FOR GENERAL PURPOSE LANES**

Beat	Contractor	Contract No.	Original Contract Value	Existing CMA	Requested CMA Increase	Revised Total CMA
1	All City Tow	FSP2828200FSP141	\$1,651,224.00	\$430,122.00	\$219,000.00	\$649,122.00
2	Citywide Towing	FSP2785600FSP142	\$1,562,049.00	\$346,204.00	\$258,000.00	\$604,204.00
3	Hollywood Car Carrier	FSP3469400B3/43	\$1,915,326.00	\$191,532.00	\$849,000.00	\$1,040,532.00
4	Frank Scotto Towing	FSP2788200FSP144	\$1,732,088.00	\$363,208.00	\$237,000.00	\$600,208.00
5	Sonic Towing, Inc.	FSP3469500B5/17	\$1,808,057.00	\$180,805.00	\$320,000.00	\$500,805.00
6	Neighborhood Towing 4 U	FSP3469600B6	\$1,760,238.00	\$176,023.00	\$338,000.00	\$514,023.00
8	Citywide Towing	FSP2825800FSP148	\$1,562,049.00	\$351,204.00	\$293,000.00	\$644,204.00
9	Frank Scotto Towing	FSP3470000B9	\$1,835,200.00	\$183,520.00	\$394,000.00	\$577,520.00
10	Neighborhood Towing 4 U	FSP3848100FSP1410	\$1,717,924.00	\$416,792.00	\$365,000.00	\$781,792.00
12	Tip Top Tow	FSP2826700FSP14	\$2,312,650.00	\$231,265.00	\$796,000.00	\$1,027,265.00
13	Reliable Delivery Service	FSP2831500FSP1413	\$2,230,847.00	\$698,084.00	\$440,000.00	\$1,138,084.00
17	Sonic Towing, Inc.	FSP3469500B5/17	\$1,782,209.00	\$178,220.00	\$241,000.00	\$419,220.00
18	Bob & Dave's Towing, Inc.	FSP2690300FSP1418	\$2,486,760.00	\$248,676.00	\$695,000.00	\$943,676.00
20	Bob's Towing	FSP2836600FSP1420	\$2,292,530.00	\$229,253.00	\$211,000.00	\$440,253.00
21	Bob's Towing	FSP2839000FSP1421	\$2,292,530.00	\$229,253.00	\$153,000.00	\$382,253.00
24	T.G. Towing, Inc.	FSP2833200FSP1424	\$1,753,911.00	\$505,391.00	\$275,000.00	\$780,391.00
28	Hadley Tow	FSP3847300FSP1428	\$2,293,737.00	\$229,373.00	\$99,000.00	\$328,373.00
33	Mid Valley Towing	FSP2851900FSP1433	\$1,671,437.00	\$547,143.00	\$266,000.00	\$813,143.00
34	South Coast Towing, Inc.	FSP2839600FSP1434	\$1,724,050.00	\$487,405.00	\$292,000.00	\$779,405.00
36	Hadley Tow	FSP2841400FSP1436	\$1,932,125.00	\$543,212.00	\$288,000.00	\$831,212.00
37	Reliable Delivery Service	FSP3696000FSP1437	\$1,898,072.00	\$189,807.00	\$690,000.00	\$879,807.00
38	Steve's Towing	FSP38468001438	\$2,263,556.00	\$226,355.00	\$106,000.00	\$332,355.00
39	Jon's Towing	FSP3470400B27/39	\$2,152,353.00	\$215,235.00	\$253,000.00	\$468,235.00
41	T.G. Towing, Inc.	FSP2760200144	\$1,832,033.00	\$623,203.00	\$322,000.00	\$945,203.00

42	Platinum Tow & Transport	FSP2842100FSP1442	\$1,765,665.00	\$471,566.00	\$290,000.00	\$761,566.00
43	Hollywood Car Carrier	FSP3469400B3/43	\$1,915,326.00	\$191,532.00	\$828,000.00	\$1,019,532.00
70	Tip Top Tow	FSP3471300B70	\$3,885,770.00	\$388,577.00	\$920,000.00	\$1,308,577.00
71	Bob & Dave's Towing, Inc.	FSP3471500B71	\$5,455,123.12	\$545,512.00	\$932,000.00	\$1,477,512.00
R1	Kenny's Auto Service	FSP13-R1	\$15,428,224.00	\$1,542,822.00	\$3,151,000.00	\$4,693,822.00
Totals				<u>\$11,161,294.00</u>	<u>\$14,521,000.00</u>	<u>\$25,682,294.00</u>

CONTRACT MODIFICATION/CHANGE ORDER LOG

METRO FREEWAY SERVICE PATROL
TOWING SERVICES FOR GENERAL PURPOSE LANES

CONTRACT No. FSP2828200FSP14-1

BEAT No. 1

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	4/26/18	\$0.00
2	Period of Performance extension	Approved	7/27/2018	\$0.00
3	Period of Performance extension	Approved	12/19/2018	\$0.00
4	Add Funding	Approved	4/16/2019	\$265,000.00
	Modification Total:			\$265,000.00
	Original Contract:			\$1,816,346.00
	Total:			\$2,081,346.00

CONTRACT No. FPS278650014-2

BEAT No. 2

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	5/10/2018	\$0.00
2	Period of Performance extension	Approved	7/27/2018	\$0.00
3	Add Funding	Approved	12/19/2018	\$156,204.00
4	Add Funding	Approved	12/31/2018	\$190,000.00
	Modification Total:			\$346,204.00
	Original Contract:			\$1,562,049.00
	Total:			\$1,908,253.00

CONTRACT No. FSP2788200FSP14-4

BEAT No. 4

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	5/10/2018	\$0.00
2	Period of Performance extension	Approved	7/27/2018	\$0.00
3	Add Funding and Period of Performance extension	Approved	12/19/2018	\$173,208.00
4	Period of Performance extension	Approved	5/31/2019	\$0.00
	Modification Total:			\$173,208.00
	Original Contract:			\$1,732,088.00
	Total:			\$1,905,296.00

CONTRACT No. FSP2825800FSP14-8

BEAT No. 8

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	5/10/2018	\$0.00
2	Period of Performance extension	Approved	7/27/2018	\$0.00
3	Add Funding and Period of Performance extension	Approved	12/19/2018	\$156,204.00
4	Add Funding	Approved	4/16/2019	\$195,000.00
	Modification Total:			\$351,204.00
	Original Contract:			\$1,562,049.00
	Total:			\$1,913,253.00

CONTRACT No. FSP3848100FSP14-10

BEAT No. 10

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	8/3/2018	\$0.00
2	Add Funding	Approved	12/19/2018	\$171,792.00

	Modification Total:			\$171,792.00
	Original Contract:			\$1,717,924.00
	Total:			\$1,889,716.00

CONTRACT No. FSP28231500SP14-13

BEAT No. 13

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	5/9/2018	\$0.00
2	Period of Performance extension	Approved	8/3/2018	\$0.00
3	Add Funding	Approved	9/7/2018	\$223,084.00
4	Period of Performance extension	Approved	12/19/2018	\$0.00
5	Add Funding and Period of Performance extension	Approved	1/14/2019	\$475,000.00
	Modification Total:			\$698,084.00
	Original Contract:			\$2,230,847.00
	Total:			\$2,928,931.00

CONTRACT No. FSP2833200FSP14-24

BEAT No. 24

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	5/11/2018	\$0.00
2	Period of Performance extension	Approved	8/3/2018	\$0.00
3	Add Funding and Period of Performance extension	Approved	12/19/2018	\$175,391.00
4	Add Funding and Period of Performance extension	Approved	5/17/2019	\$330,000.00
	Modification Total:			\$505,391.00
	Original Contract:			\$1,753,911.00
	Total:			\$2,259,302.00

CONTRACT No. FSP2851900FSP14-33

BEAT No. 33

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	6/12/2018	\$0.00
2	Add Funding and Extend Period of Performance extension	Approved	12/19/2018	\$167,143.00
3	Add Funding and Extend Period of Performance extension	Approved	5/17/2019	\$380,000.00
	Modification Total:			\$547,143.00
	Original Contract:			\$1,671,437.00
	Total:			\$2,218,580.00

CONTRACT No. FSP2839600FSP14-34

BEAT No. 34

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	6/12/2018	\$0.00
2	Add Funding	Approved	12/19/2018	\$172,405.00
	Modification Total:			\$172,405.00
	Original Contract:			\$1,724,050.00
	Total:			\$1,896,455.00

CONTRACT No. FSP2841400FSP14-36

BEAT No. 36

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	6/12/2018	\$0.00
2	Add Funding	Approved	12/20/2018	\$193,212.00
	Modification Total:			\$193,212.00
	Original Contract:			\$1,932,125.00

	Total:		\$2,125,337.00
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CONTRACT No. FSP276020014-41

BEAT No. 41

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	5/1/2018	\$0.00
2	Period of Performance extension	Approved	8/3/2018	\$0.00
3	Add Funding	Approved	9/8/2018	\$183,203.00
4	Period of Performance extension	Approved	12/19/2018	\$0.00
5	Period of Performance extension	Approved	5/31/2019	\$0.00
6	Add Funding	Approved	6/21/2019	\$220,000.00
	Modification Total:			\$403,203.00
	Original Contract:			\$1,832,033.00
	Total:			\$2,235,236.00

CONTRACT No. FSP2842100FSP14-42

BEAT No. 42

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Period of Performance extension	Approved	6/12/2018	\$0.00
2	Add Funding	Approved	12/20/2018	\$175,566.00
	Modification Total:			\$175,566.00
	Original Contract:			\$1,765,665.00
	Total:			\$1,941,231.00

DEOD SUMMARY

**FSP LIGHT DUTY TOWING – REGION 1 AND REGION 2
FS58039000, FS58039001**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 7% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) goal for this procurement. For Region 1, Kenny's Auto Service, an SBE Prime, exceeded the goal by making a 96.99% SBE commitment and a 3.01% DVBE commitment. For Region 2, Platinum Tow & Transport, an SBE Prime, exceeded the goal by making a 94.29% SBE commitment and a 3.25% DVBE commitment.

Region 1 - Kenny's Auto Service

Small Business Goal	7% SBE 3% DVBE	Small Business Commitment	96.99% SBE 3.01% DVBE
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SBE Subcontractors		% SBE Commitment
1.	Kenny's Auto Service (SBE Prime)	96.99%
Total		96.99%

DVBE Subcontractors		% DVBE Commitment
2.	DVBE Insurance and Financial	3.01%
Total		3.01%

Region 2 - Platinum Tow & Transport

Small Business Goal	7% SBE 3% DVBE	Small Business Commitment	94.29% SBE 3.25% DVBE
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SBE Subcontractors		% SBE Commitment
1.	Platinum Tow & Transport (SBE Prime)	93.54%
2.	Capp Uniform Service	0.44%
3.	Autolift Services	0.31%
Total		94.29%

DVBE Subcontractors		% DVBE Commitment
1.	Oasis Fuels	3.25%
Total		3.25%

Small Business Participation – Various Beats

Of the twenty-nine FSP contracts included in this modification, Contractors made SBE commitments for 21 Beats, 18 of which are meeting or exceeding their SBE commitment(s) and 11 of which are SBE Primes.

The FSP Contractors for Beats 1, 2, 8, 33, 38, 39 and 71 did not make SBE commitments and have no SBE participation. These contracts were procured prior to the 2016 legislative change to the Public Utilities Code that authorized meeting the SBE goal as a condition of award for non-federal IFB procurements.

The FSP Contractors for Beats 4, 12, and 70 have participation levels below their respective commitment levels and are in shortfall. For Beat 4, Mighty Transport, Inc. dba Frank Scotto Towing, made a 10.54% SBE commitment. The project is 62% complete and the current SBE participation is 7.23%, representing a 3.13% shortfall. Frank Scotto Towing added one (1) SBE subcontractor to perform on the contract which has decreased their shortfall from 3.94% as previously reported in November 2018 and expect to meet their commitment. For Beats 12 and 70, Tip Top Tow made a 10.20% SBE commitment for each, which is 92% and 89% complete, respectively. Current SBE participation is 1.81% and 0%, representing shortfalls of 8.39% and 10.20%. Tip Top Tow explained that their listed SBE had been decertified prior to subcontract execution for Beat 70, and that they are in the process of adding one (1) SBE to mitigate their shortfall for both beats.

Notwithstanding, Metro Project Managers and Contract Administrators will work in conjunction with DEOD to ensure that the FSP Contractors are on schedule to meet or exceed their SBE commitments. Additionally, key stakeholders associated with the contract have been provided access to Metro's tracking and monitoring system to ensure that all parties are actively tracking Small Business progress.

Beat 3 – Disco Auto Sales dba Hollywood Car Carrier

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc. dba California Fuels	10.20%	21.45%
	Total	10.20%	21.45%

Beat 4 – Mighty Transport, Inc. dba Frank Scotto Towing

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Patten Energy	10.42%	5.19%
2.	JCM & Associates	0.12%	0.01%
3.	Buchanan & Associates	Added	2.34%
	Total	10.54%	7.54%

Beat 5 – Sonic Towing, Inc.

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Sonic Towing, Inc. (SBE Prime)	Added	54.19%
2.	Casanova Towing Equipment	16.70%	0.00%
	Total	16.70%	54.19%

Beat 6 – Neighborhood Towing 4U

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Neighborhood Towing 4U, Inc. (SBE Prime)	Added	16.96%
1.	Casanova Towing Equipment	16.70%	0.00%
	Total	16.70%	16.96%

Beat 9 – Mighty Transport, Inc. dba Frank Scotto Towing

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc.	10.13%	15.31%
2.	Buchanan & Associates	0.87%	1.29%
3.	JCM & Associates	0.10%	0.04%
4.	Performance Auto Body	0.22%	0.00%
	Total	11.32%	16.64%

Beat 10 – Neighborhood Towing 4 U

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Neighborhood Towing 4 U (SBE Prime)	10.02%	11.96%
2.	AAA Oils, Inc.	Added	11.90%
	Total	10.02%	23.86%

Beat 12 –Tip Top Tow

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc.	10.20%	1.81%
	Total	10.20%	1.81%

Beat 13 – Reliable Delivery Service

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Reliable Delivery Service (SBE Prime)	100%	100%
	Total	100%	100%

Beat 17 – Sonic Towing, Inc.

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Sonic Towing, Inc. (SBE Prime)	Added	52.99%
2.	Casanova Towing Equipment	16.70%	0.00%
	Total	16.70%	52.99%

Beat 18 – Bob & Dave’s Towing

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Deborah Dyson Electrical	4.95%	15.91%
2.	JCM & Associates	0.12%	1.00%
	Total	5.07%	16.91%

Beats 20 and 21 – Safeway Towing Services, Inc. dba Bob’s Towing

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Bob’s Towing (SBE Prime)	100%	100%
	Total	100%	100%

Beat 24 – T.G. Towing, Inc.

	SBE Subcontractor(s)	% Commitment	% Participation
1.	T. G. Towing, Inc. (SBE Prime)	100%	100%
	Total	100%	100%

Beat 28 – FMG, Inc. dba Hadley Tow

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc.	18.83%	15.50%
2.	Manatek Insurance	2.62%	6.22%
	Total	21.45%	21.72%

Beat 34 – South Coast Towing, Inc.

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc. dba California Fuel	11.31%	13.11%
	Total	11.31%	13.11%

Beat 36 – Hadley Tow

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc. dba California Fuel	16.77%	15.74%
2.	Manatek Insurance	2.33%	6.44%
	Total	19.10%	22.18%

Beat 37 – Reliable Delivery Service

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Reliable Delivery Service (SBE Prime)	100%	100%
	Total	100%	100%

Beat 41 – T.G. Towing, Inc.

	SBE Subcontractor(s)	% Commitment	% Participation
1.	T.G. Towing, Inc. (SBE Prime)	100%	100%
	Total	100%	100%

Beats 42 – Platinum Tow & Transport

	SBE Subcontractor(s)	% Commitment	% Participation
1.	Platinum Tow & Transport (SBE Prime)	100%	100%
	Total	100%	100%

Beat 43 – Disco Auto Sales dba Hollywood Car Carrier

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc. dba California Fuels	10.20%	15.88%
	Total	10.20%	15.88%

Beat 70 – Tip Top Tow Service

	SBE Subcontractor(s)	% Commitment	% Participation
1.	AAA Oils, Inc.	10.20%	0.00%
	Total	10.20%	0.00%

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is applicable to this modification. Metro staff will monitor and enforce the policy guidelines to ensure that applicable workers are paid at minimum, the current Living Wage rate of \$19.56 per hour (\$14.22 base + \$5.34 health benefits), including yearly increases. The increase may be up to 3% of the total wage, annually. In addition, contractors will be responsible for submitting the required reports for the Living Wage and Service Contract Worker Retention Policy and other related documentation to staff to determine overall compliance with the policy.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.

**Board Report**

File #: 2019-0483, **File Type:** Contract**Agenda Number:** 44.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JULY 18, 2019****SUBJECT: GOLD LINE P2550 LIGHT RAIL VEHICLE (LRV) STATIC INVERTER APS/LVPS
OVERHAUL****ACTION: CONTRACT AWARD****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a 60-month, Indefinite Delivery/Indefinite Quantity (IDIQ) Contract No. MA62488000 to AmeTrade, Inc., DBA AmePower, Inc., for the overhaul of P2550 Light Rail Vehicle Static Inverter Auxiliary Power Supply/Low Voltage Power Supply (APS/LVPS). This award is a not-to-exceed amount of \$2,509,943, subject to resolution of protest(s), if any.

ISSUE

In June 2017, the Board of Directors approved the implementation of a P2550 Component Overhaul Program. This procurement is for equipment overhaul services for the P2550 fleet as recommended by the Original Equipment Manufacturer (OEM) established guidelines. Execution of the overhaul will ensure that the fifty (50) rail car fleet remains in a constant State of Good Repair (SGR) while safeguarding passenger safety, vehicle performance and equipment longevity.

DISCUSSION

The Ansaldo Breda P2550 Light Rail Vehicle (LRV) fleet is in its 11th year of revenue operations. In order to ensure continued safety and reliability the Static Inverter requires overhaul at the eighth year or the six-hundred thousand (600,000) mileage interval as defined by the OEM. The Static Inverter equipment consists of low and high power electronics that drive the inverter modules, transduce voltages, and convert direct current voltages to power the various vehicle systems. The static inverter equipment consists of capacitors, resistors, relays, and circuit boards that degrade and drift over time. This is an integral component of the vehicle systems that provides regulated power to the vehicle inverter systems; therefore, it is critical to maintain the Static Inverter equipment in a constant state of good repair.

The P2550 Component Overhaul Program consists of a total of nine procurements for the overhaul of the major vehicle systems inclusive of propulsion, pantograph, battery, doors, couplers, high voltage and auxiliary power, friction brakes and truck systems. The power axle assembly, coupler, and friction brake contracts were awarded in December of 2017. Metro is requesting the approval of the Static Inverter APS/LVPS overhaul contract which is the ninth and final component overhaul procurement

requiring board approval for this project. This procurement is for the equipment overhaul services to complete the overhaul of fifty kits in addition to five spare kits to support the maintenance activities.

Metro's Transit Asset Management and Operations staff conducted a condition assessment of the P2550 fleet in the fall of 2016. The P2550 fleet's overall State of Good Repair (SGR) rating is 3.7 out of 5.0 for an overall adequate rating. This represents an asset that has reached its mid-life and has some moderately defective or deteriorated components. The assessment suggested that by performing the recommended OEM mid-life overhauls and addressing the design and obsolescence issues on the P2550 fleet, it is expected that the vehicles can reach their intended 30-year life based on statistical condition decay models.

Rail Fleet Services (RFS) Engineering developed an equipment overhaul specification for the Static Inverter APS/LVPS overhaul based upon the OEM recommendations and with RFS maintenance experience. The contractor will perform overhaul services in accordance with a defined schedule and with Metro's technical specifications requirements.

DETERMINATION OF SAFETY IMPACT

Safety is of the utmost importance to Metro and, therefore, it is imperative to maintain the P2550 fleet. The Static Inverter overhaul supports the complete P2550 overhaul program, ensuring the fleet is overhauled in accordance with regulatory standards, according to the defined schedule and technical specifications requirements, and within Metro's internal standards, policies and procedures.

FINANCIAL IMPACT

The approved Life-of-Project (LOP) for CP 214001 - P2550 Fleet Component Overhaul Program is \$35,007,546. Funding of \$357,356 for this contract award is included in the FY20 budget in cost center 3944, Rail Fleet Services Maintenance, line item 50441, Parts - Revenue Vehicle.

Since this is a multi-year Contract, the cost center manager, project manager and Sr. Executive Officer, Rail Fleet Services will ensure that the balance of funds is budgeted in future fiscal years.

Impact to Budget

The current source of funds for this contract award is Transportation Development Act Article 4 (TDA). Use of this funding source maximizes allowable funding mechanisms given approved funding provisions.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal 2, Deliver outstanding trip experience for all users of the transportation system.

ALTERNATIVES CONSIDERED

Deferral of this program is not recommended as the OEM is out-of-business and parts obsolescence is a significant concern to keep the static inverter operational until such time it will be a candidate for replacement during the midlife Modernization project. The static inverter is a safety critical device

that, if not properly maintained, could result in equipment failures and events due to loss of vehicle 'house power' to door systems, interior lighting, and battery charging. The static inverter provides control power to all vehicle systems and upon failure, poses a high risk to passenger safety, negative impact to vehicle availability and reliability.

NEXT STEPS

Overhaul of the P2550 Light Rail Vehicle Static Inverter APS/LVPS will continue in accordance with Rail Fleet Services' scheduled requirements. If approved, the project is scheduled to commence in October 2019.

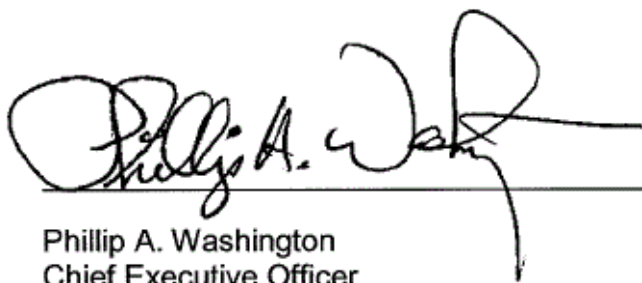
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Bob Spadafora, Sr. Executive Officer, Rail Fleet Services
(213) 922-3144
Richard M. Lozano, Sr. Director, Rail Vehicle Maintenance,
(323) 224-4042

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer,
(213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**GOLD LINE P2550 LIGHT RAIL VEHICLE (LRV) STATIC INVERTER APS/LVPS
OVERHAUL
CONTRACT NO. MA62488000**

1.	Contract Number: MA62488000	
2.	Recommended Vendor: AmeTrade, Inc. DBA AmePower	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 4/19/19	
	B. Advertised/Publicized: 4/19/19	
	C. Pre-Proposal Conference: N/A	
	D. Proposals Due: 6/6/19	
	E. Pre-Qualification Completed: 6/21/19	
	F. Conflict of Interest Form Submitted to Ethics: 5/30/19	
	G. Protest Period End Date: 7/23/19	
5.	Solicitations Picked up/Downloaded: 8	Bids/Proposals Received: 3
6.	Contract Administrator: Edmund Gonzales	Telephone Number: 213-418-3073
7.	Project Manager: Bob Spadafora	Telephone Number: 213-922-3144

A. Procurement Background

This Board Action is to approve Contract No. MA62488000 issued to perform overhaul services for the Gold Line P2550 Light Rail Vehicle (LRV) Static Inverter APS/LVPS. Board approval of contract awards are subject to resolution of any properly submitted protest.

The Request for Proposal (RFP) was issued in accordance with Metro's Acquisition Policy and the contract type is an Indefinite Delivery, Indefinite Quantity (IDIQ).

Three (3) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on May 2, 2019 provided revised proposal evaluation criteria and provided details to clarify the technical requirements.
- Amendment No. 2, issued on May 28, 2019 provided a new specification revision.
- Amendment No. 3, issued on June 4, 2019, provided an updated Schedule of Quantities and Prices and requested Best and Final Offers.

A total of three (3) proposals and one (1) alternative proposal were received on May 13, 2019.

B. Evaluation of Proposals

This procurement was conducted in accordance with, and complies with LACMTA's Acquisition Policy for a competitive RFP using evaluation criteria and weighted factors. Proposals were evaluated by the Source Selection Committee (SSC) based on the following evaluation criteria and weights:

Technical Capability	25%
Proposed Work Scope	30%
Project Management	20%
Price	<u>25%</u>

Total 100%

The firms that submitted proposals are listed below in alphabetical order:

1. AmeTrade, Inc. DBA AmePower
2. PSI Repair Services, Inc.
3. Woojin USA, Inc.

Woojin USA, Inc. also submitted an alternative proposal which was reviewed.

The SSC conducted a technical evaluation on each proposal received. The SSC found all three base proposals to be technically responsive and responsible to the RFP's Specification and Statement of Work requirements. The alternate proposal was also deemed responsive and responsible and was evaluated and scored. The following is a summary of the SSC's ranking/scores for this procurement:

	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
	AmePower				
	Technical Capability	94.67	25.00%	23.67	
	Proposed Work Scope	91.11	30.00%	27.33	
	Project Management	93.33	20.00%	18.67	
	Price		25.00%	20.34	
	Total		100.00%	90.01	1
	PSI Repair Services				
	Technical Capability	78.67	25.00%	19.67	
	Proposed Work Scope	76.67	30.00%	23.00	
	Project Management	83.33	20.00%	16.67	
	Price		25.00%	25.00	
	Total		100.00%	84.34	2
	Woojin USA (Primary Proposal)				
	Technical Capability	69.33	25.00%	17.33	
	Proposed Work Scope	77.78	30.00%	23.33	
	Project Management	73.33	20.00%	14.67	
	Price		25.00%	14.75	
	Total		100.00%	70.08	4

	Woojin USA (Alternative Proposal)				
	Technical Capability	75.33	25.00%	18.83	
	Proposed Work Scope	83.33	30.00%	25.00	
	Project Management	85.55	20.00%	17.11	
	Price		25.00%	15.21	
	Total		100.00%	76.15	3

The firm recommended for award, AmePower, Incorporated was found to be in full compliance with the technical and all other RFP requirements, and received the highest ranking.

Qualifications Summary of Firms within the Competitive Range:

AmePower

AmeTrade, Inc., dba AmePower has experience delivering high power electronic systems. Through discussions with their technical team, Metro’s SSC determined that AmePower has the technical capability to perform the required overhauls and upgrade services. AmePower exhibited extensive rail overhaul experience and technical knowledge.

AmePower possesses the required experience, equipment, personnel, technical and operational resources to provide overhaul or replacement services of the Static Inverter per the technical specification. Additionally they provided a detailed written test plan which demonstrated their in-depth knowledge of the Statement of Work. AmePower also has a past history of successful performance with projects similar to the Static Inverter Overhaul project.

PSI Repair Services, Inc.

PSI Repair Services met the technical requirements and appears to have the necessary resources. PSI provided draft test and inspection plan information for the SSC which were acceptable. PSI has performed previous projects for Dallas Area Rapid Transit (DART), Denver RTD, and VTA Santa Clara as well as for Kinkisharyo International LLC. PSI has also performed P2550 inverter repairs for Metro in the past.

Woojin USA, Inc.

Woojin USA, Inc. has delivered energy storage systems and auxiliary power supplies to DTP (Denver Transit Partners), MBTA (Massachusetts Bay Transportation Authority), Seattle Sound Transit, SEPTA (Southeastern Pennsylvania Transportation Authority), TriMet (Tri-County Metropolitan Transportation District), and Tren Urbano in Puerto Rico.

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate price competition, comparison to Metro's ICE, and the technical analysis of proposals, in accordance with RFP requirements.

Proposer Name	Initial Proposal Amount	BAFO Amount	Metro ICE
AmePower, Inc.	\$3,000,620	\$2,509,943	\$2,730,000
PSI	\$2,489,766	\$2,042,420	
Woojin-Primary	\$4,733,877	\$3,461,175	
Woojin-Alternate	\$3,356,078	\$3,356,078	

The price analysis of the initial proposals showed that one proposer did not submit complete pricing for all items requested. To ensure a complete price analysis and to assure that Metro would receive the best value for the contract, a request for Best and Final Offer (BAFO) was issued on June 4, 2019. All three competitors responded with complete price proposals which were used to complete the price analysis. Also, the BAFO request resulted in a cost savings to Metro of \$490,737 over the previous proposal from the recommended contractor, AmePower.

D. Background on Recommended Contractor

AmePower, Incorporated is a Metro certified SBE. AmePower is located in Miami, Florida and has been in business over 20 years. Amepower is a certified engineering company whose expertise includes: Insulated-Gate Bipolar Transistor (IGBT) to IGBT and Gate Turn-Off (GTO) Thyristor to IGBT technology conversions; overhaul, retrofit and manufacturing services for rolling stock systems including: Complete Converters; Low Voltage Power Supplies (LVPS); Phase Modules; Auxiliary Power Supplies (APS); and Battery Chargers.

AmePower evolved as leading suppliers of power electronics components in the Southeast, to a full Power Electronics solutions provider, primarily focused in the Mass Transportation Industry. AmePower has contracts for rail component overhauls with New York Transit of New York City and ACI Herzog of Puerto Rico. The firm has completed contracts to provide upgrade services with MARC of Maryland and WMATA of Washington, DC in the past 3 years.

AmePower has a current contract with Metro to repair the A650 GTO Phase Modules which will be completed in 2019. AmePower's contract performance with Metro has been satisfactory.

DEOD SUMMARY

**GOLD LINE P2550 LIGHT RAIL VEHICLE (LRV) STATIC INVERTER APS/LVPS
OVERHAUL
CONTRACT NO. MA62488000**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small/Disabled Veteran Business Enterprise (SBE/DVBE) goal for this procurement. While DEOD determined there was a lack of available SBE/DVBE certified firms to perform the specialized overhaul design and manufacturing work, staff continues to encourage eligible proposers to seek certification as SBEs. AMETRADE, Inc. responded accordingly, and was SBE certified prior to proposal due date. AMETRADE, Inc. made a 100% SBE commitment as a prime.

	SBE Contractors	SBE % Committed
1.	AMETRADE, Inc. (Prime)	100.00%
Total Commitment		100.00%

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.