



Long Beach-East Los Angeles Corridor Mobility Investment Plan

Plan de Inversión en Movilidad del Corredor Long Beach-East LA

 Metro **Tour Packet / Paquete del recorrido**

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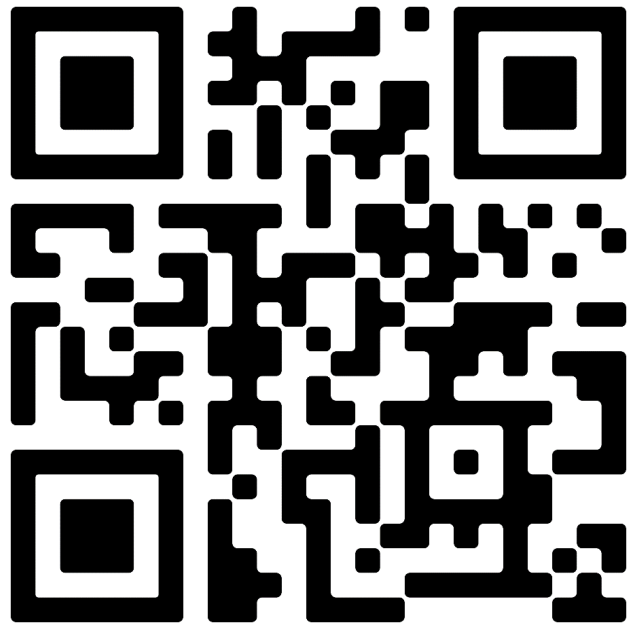
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Program Agenda / Programa de agenda

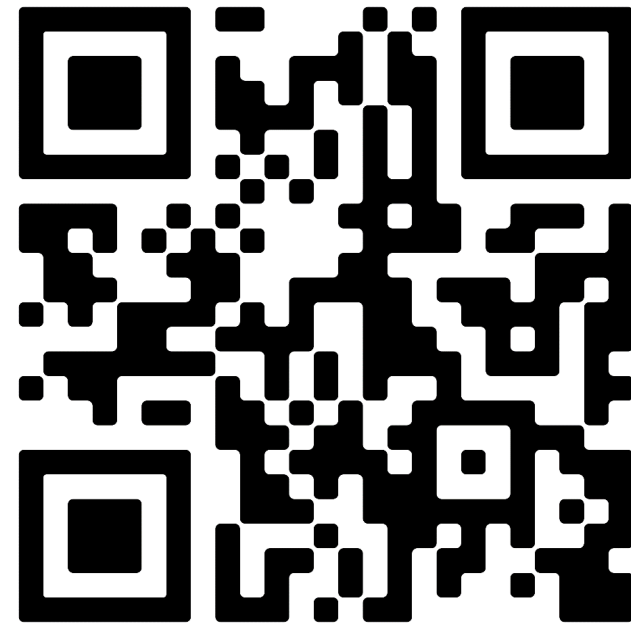
Time / Tiempo	Description / Descripción
8:30am – 9:00am	Welcome, Registration, Light refreshments / <i>Bienvenida, Registro, Refrigerios ligeros</i>
9:00am – 9:10am	Introductions & Tour Orientation/ <i>Presentaciones y orientación del recorrido</i>
9:10am – 9:40am	Tour Sites Group #1: East Los Angeles to Huntington Park / <i>Sitios turísticos # 1: Este de Los Ángeles a Huntington Park</i>
9:40am – 10:10am	Tour Sites Group #2: Maywood to Lynwood / <i>Sitios del recorrido #2: Maywood a Lynwood</i>
10:10am – 10:40am	Tour Sites Group #3: Lynwood to Paramount / <i>Sitios del recorrido #3: Lynwood a Paramount</i>
10:40am – 10:55am	Restroom Break Compton College/ <i>Descanso en el baño Compton College</i>
10:55am – 11:25am	Tour Sites Group #4: N. Long Beach to Carson / <i>Sitios del recorrido #4: N. Long Beach to Carson</i>
11:25am – 11:55pm	Tour Site #5: Long Beach / <i>Sitios del recorrido #5: Long Beach</i>
11:55am – 12:40pm	Lunch Break: Long Beach Port of Long Beach / <i>Pausa para el almuerzo: Puerto de Long Beach de Long Beach</i>
12:40pm – 1:30pm	Return Trip (RT) on I-710 Long Beach to East Los Angeles / <i>Viaje de regreso (RT) por la I-710 Long Beach al este de Los Ángeles</i>
1:30pm – 1:45pm	Disembark, Closing Remarks, and Adjourn / <i>Desembarque, observaciones y aplazamiento</i>

Tour Materials (Digital) / *Materiales del recorrido*

**SCAN THE QR CODE TO ACCESS THE TOUR PACKET /
*ESCANEE EL CODIGO QR PARA ACCEDER AL PAQUETE
DEL RECORRIDO:***














**SCAN THE QR CODE TO ACCESS THE STORY MAP /
*ESCANEE EL CODIGO QR PARA ACCEDER EL STORY
MAP:***



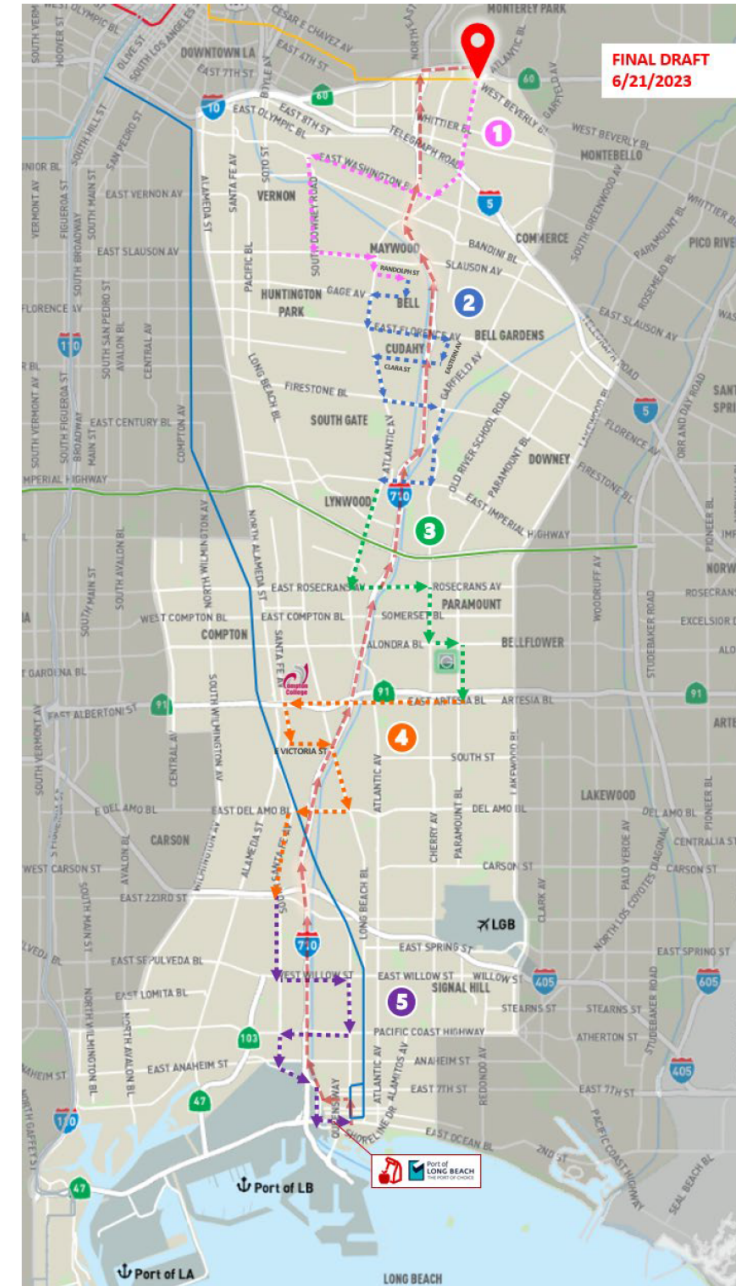
LB-ELA Corridor Mobility Investment Plan

Corridor Tour – Detailed Itinerary

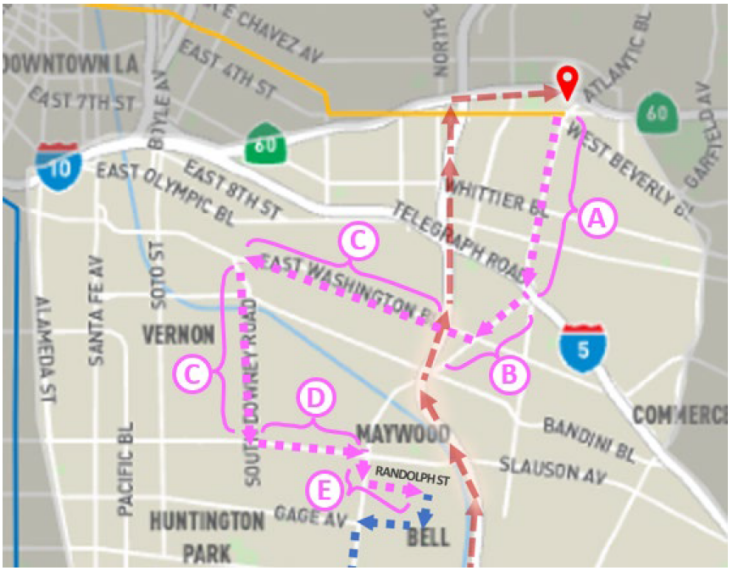
Final Draft (Updated 6/21/2023)

#	Time	Activity
i.	8:30am – 9:00am	 Welcome, Registration, Light refreshments
ii.	9:00am – 9:10am	 Introductions & Tour Orientation
1.	9:10am – 9:40am	 Tour Sites Group #1: <i>East Los Angeles to Huntington Park</i>
2.	9:40am – 10:10am	 Tour Sites Group #2: <i>Maywood to Lynwood</i>
3.	10:10am – 10:40am	 Tour Sites Group #3: <i>Lynwood to Paramount</i>
RB	10:40am – 10:55am	 Restroom Break (RB): Compton College
4.	10:55am – 11:25am	 Tour Sites Group #4: <i>N. Long Beach to Carson</i>
5.	11:25am – 11:55pm	 Tour Site #5: <i>Long Beach</i>
LB	11:55am – 12:40pm	 Lunch Break (LB): Port of Long Beach
RT.	12:40pm – 1:30pm	 Return Trip (RT) on I-710 <i>Long Beach to East Los Angeles</i>
iii.	1:30pm – 1:45pm	 Disembark, Closing Remarks, and Adjourn Arrival to point of origin

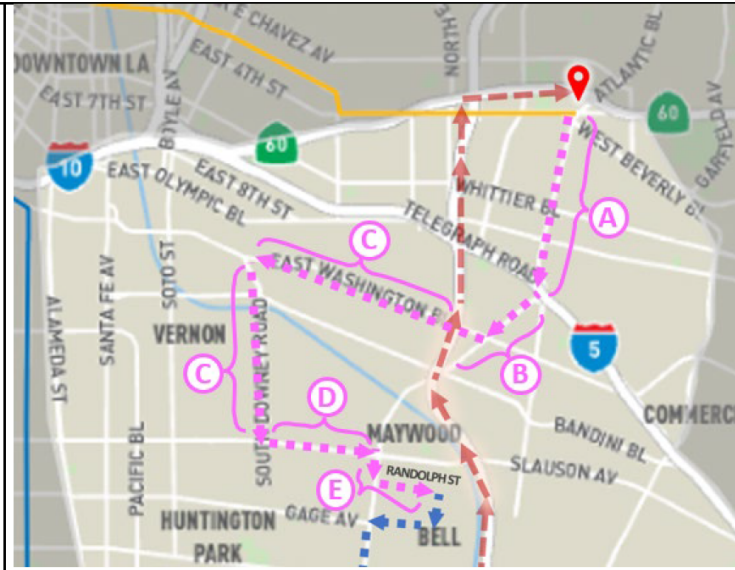
LB-ELA Mobility Investment Plan – Corridor Tours (June 24 & 28, 2023)



Detailed Itinerary

#	Time / Activity Description	Other Projects/Programs to Highlight
i.	<p>Welcome, Registration, Light Refreshments <i>Metro L (Gold) Line Atlantic Station Parking Structure</i> 8:30am – 9:00am</p>	<ul style="list-style-type: none"> • Participants are required to meet at this site by 9am; late arrivals will miss tour. • AA will greet participants and hand them their tour packets. • Coffee and pastries will be available.
ii.	<p>Introductions & Tour Orientation <i>Overview of itinerary/protocols & Overview of Metro L Line (Gold)</i> 9:00am – 9:10am</p>	<ul style="list-style-type: none"> + <i>Speaker(s)</i>: Project team staff and other + <i>Topic(s)</i>: <ul style="list-style-type: none"> □ Welcome and introductions □ Tour orientation / purpose of tour • Review tour itinerary/protocols at Metro L (Gold) Line Atlantic Station parking structure • Board bus to initiate tour.
1	<p>Tour Sites Group #1: <i>East Los Angeles to Huntington Park</i> 9:10am – 9:40am</p> 	<p>A. Atlantic Bl Corridor / Metro L (Gold) Line & Eastside Transit Corridor Phase 2</p> <ul style="list-style-type: none"> + <i>Speaker(s)</i>: Project Team Staff & Other + <i>Topic(s) / Related Project(s)</i>: <ul style="list-style-type: none"> □ Existing Metro L (Gold) Line/Eastside Transit Phase 2/Regional Connector 🚶🚲 LB-ELA_0139: Humphreys Avenue Pedestrian/Bicycle Overcrossing, East LA 🚌 LB-ELA_0178: Metro Bus Priority Lane Corridor along Line 18 (Whittier Bl) 🚌 LB-ELA_0179: Metro Bus Priority Lane Corridor along Line 66 (Olympic Bl) 🚏 LB-ELA_0077: Bus Stop Improvements (Commerce) 🚏 LB-ELA_0172: Commerce Metrolink Station Improvements 🚏 LB-ELA_0174: New Metrolink Station at planned Commerce/Citadel Station <p>B. Caltrans Reconnecting Communities Program</p> <ul style="list-style-type: none"> + <i>Speaker(s)</i>: Project Team Staff & Other + <i>Topic(s) / Related Project(s)</i>: <ul style="list-style-type: none"> □ Telegraph Road & Atlantic Bl Improvements <ul style="list-style-type: none"> 🚦 LB-ELA_0071: Mixmaster Traffic Signal Improvements (Telegraph/Eastern/ Atlantic) 🚦 LB-ELA_0073: Telegraph Road Improvements (Commerce) 🚦 LB-ELA_0221: Atlantic Bl widening over I-5, Mixmaster Intersection (Commerce)

LB-ELA Mobility Investment Plan – Corridor Tours (June 24 & 28, 2023)



- **Reconnecting Communities Program (Caltrans)**
 - Highlight access issues for I-710 corridor communities (especially near I-5)
- **Communities burdened by highway facilities, need for reconnection and improved access, transformational strategies/connectivity solutions**
 - 🚶🚲 LB-ELA_0076: Pedestrian and Bike Facilities (various locations in Commerce)

C. Freight and Industrial Uses

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- **Traffic Operations/Circulation Improvements**
 - 🚦🚦 LB-ELA_0072: Traffic Signal Coordination Projects (various sites in Commerce)
 - 🚦🚦 LB-ELA_0074: Traffic Signal Updates (various locations in Commerce)
 - 📹📹 LB-ELA_0075: Video Camera Installation (signalized intersections, Commerce)
- **Rail Yards, Freight, Trucks, Air Quality, Traffic, Quality of Life, Other**
 - 🚆🚆 LB-ELA 0214: I-710 Livability Concept, Multiple Jurisdictions

D. Slauson Av Corridor

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- **Slauson Av Corridor**
 - 🚶🚶 LB-ELA_0061: Slauson Av Complete Street Corridor
 - 🚶🚶 LB-ELA_0065: Slauson Av Bridge (Bell)
 - 🚶🚶 LB-ELA_0126: Slauson Av Corridor & Citywide Pedestrian, Bike, Transit Imp.
 - 🚌🚌 LB-ELA_0142: Metro Bus Priority Lane Co [Line 108](#) (Slauson)

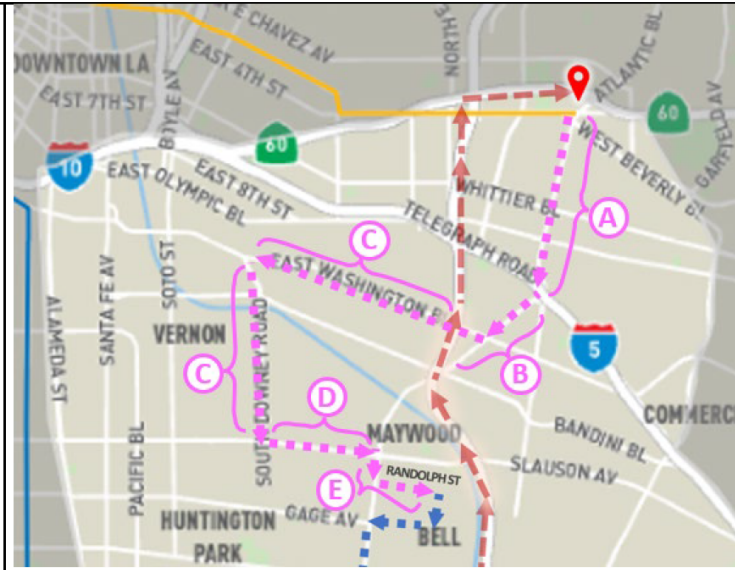
E. Active Transportation Corridors

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- **Active transportation corridor connectivity**
 - 🚶🚲 LB-ELA_0017: Regionally significant bike projects from the Metro ATC
 - 🚶🚲 LB-ELA_0163: LB-ELA Corridor Bicycle Gap Closure Projects

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- LB-ELA_0220: Micromobility Pilot Project, multiple jurisdictions
- [LB-ELA 0005: Rail to River Active Transportation Corridor Project Segment A](#)
- [LB-ELA 0006 & 0066: Rail to River Active Transportation Corridor Segment B](#)
- LB-ELA_0128: Randolph Street Bike and Pedestrian Facilities Project
- LB-ELA_0170: Huntington Park Safe Routes for Seniors & Students
- LB-ELA_0085: Intersection Improvements (Huntington Park)
- LB-ELA_0166: LB-ELA Corridor Vulnerable Road User Connected Vehicle Infrastructure Deployment (corridor-wide)

□ **Active Transportation: LA River to K Line & West Santa Ana Branch (WSAB)**

- LB-ELA_0111: West Santa Ana Branch Bike & Pedestrian Trail
- LB-ELA_0009: West Santa Ana Branch Transit-Oriented Development Strategic Implementation Plan and Program (TOD SIP) (multiple jurisdictions)
- LB-ELA_0213: WSAB Light Rail Station First-Last Mile Bikeway Safety/Access
- LB-ELA_0208: Salt Lake Avenue Pedestrian Accessibility Project

□ **Active Transportation: LA River to K Line & LA River Bike Path Connectivity**

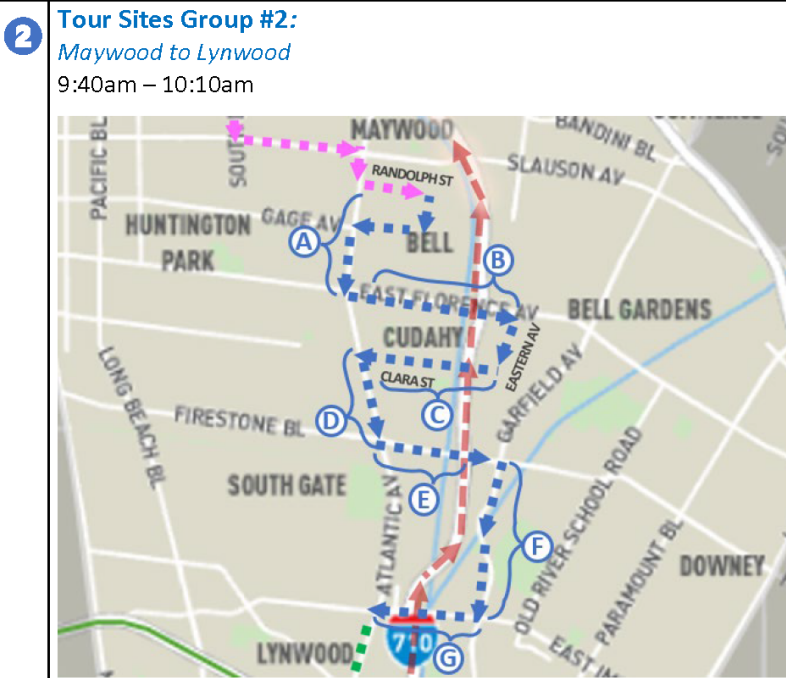
- LB-ELA_0007: [LA River Path, Central LA](#)
- LB-ELA_0055: [I-710 LA River Bike Path](#)
- LB-ELA_0078: Randolph Street Gap Closure (Commerce)
- LB-ELA_0102: Pedestrian and Bicycle Master Plan improvements (Maywood)
- LB-ELA_0103: Bus Stop Improvements (Maywood)
- LB-ELA_0200: Bike Share Programs and Bicycle Amenities, Study Area Wide
- LB-ELA_0201: Pedestrian / Bicycle Enhancements and Safety Features
- LB-ELA_0216: Bicycle Safety and Education Program (BEST)

F. Other Programs

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*

□ **Other nearby projects/programs**

- LB-ELA_0099: Traffic Signal Synchronization Projects (various, Maywood)
- LB-ELA_0100: Traffic Signal Upgrade Projects (various sites, Maywood)
- LB-ELA_0101: Video Camera installation (various sites, Maywood)



A. Atlantic Av Corridor – Randolph St to Florence Av

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- Gage Av Improvements
 - 📍🗺️ LB-ELA_0063: Gage Ave. Bridge over LA River (Bell)
 - 📍🗺️ LB-ELA_0064: Gage Avenue Street Improvements
 - 📍🗺️ LB-ELA_0086: Gage Avenue Operational and Safety Improvements
 - 📍🗺️ LB-ELA_0143: Metro Bus Priority Lane Corridor along [Line 110](#) (Gage)

B. Florence Av Corridor – Atlantic Av to Eastern Av

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- Florence Av Bridge
 - 📍🗺️ LB-ELA_0067: Florence Av Bridges (Bell)
 - 📍🗺️ LB-ELA_0079: Florence Avenue Bridge Rehabilitation
- Complete Street Corridor & Other Operational Improvements
 - 📍🗺️ LB-ELA_0058: Florence Complete Street Corridor
 - 📍🗺️ LB-ELA_0034: I-710/Florence Interchange Improvements
 - 📍🗺️ LB-ELA_0083: Traffic Signal Upgrades (Florence Av, Downey to Brookshire)
 - 📍🗺️ LB-ELA_0080: Florence Ave. & Paramount Blvd. Intersection Improvement
- Bus Priority Lane
 - 📍🗺️ LB-ELA_0144: Metro Bus Priority Lane Corridor along [Line 111](#) (Florence)

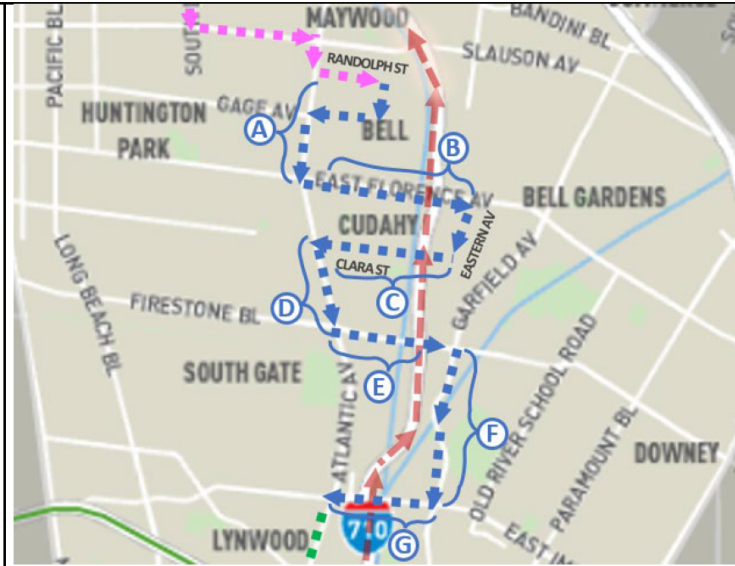
C. Clara St (Bellflower/Cudahy)

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- Communities with limited connections
 - 📍🗺️ LB-ELA_0204: Pedestrian Gap Closure Projects, study area wide
 - 📍🗺️ LB-ELA_0206: City of Bell Gardens Pedestrian and Bicycle Improvements
 - 📍🗺️ LB-ELA_0068: Systematic Safety Analysis Report Program (SSARP) (Bell Gardens)
 - 📍🗺️ LB-ELA_0069: Traffic / Ped Signal Upgrades (38 intersections, Bell Gardens)

LB-ELA Mobility Investment Plan – Corridor Tours (June 24 & 28, 2023)



D. Atlantic Av Corridor – Cudahy to South Gate

+ *Speaker(s):* Project Team Staff & Other

+ *Topic(s) / Related Project(s):*

- West Santa Ana Branch Transit Corridor

- [LB-ELA_0001](#): West Santa Ana Branch Transit Corridor (LRT)
- [LB-ELA_0009](#): WSAB TOD Strategic Implementation Plan (TOD SIP)
- [LB-ELA_0213](#): WSAB Light Rail Station First-Last Mile Bikeway Safety/Access
- [LB-ELA_0070](#): Pedestrian Bridge (Connecting Asmus Park to WSAB Station)

- Other Nearby Improvements

- [LB-ELA_0212](#): Tweedy BI Active Transportation Improvements
- [LB-ELA_0013](#): Tweedy BI Signal Sync

E. Firestone BI Corridor

+ *Speaker(s):* Project Team Staff & Other

- Firestone BI Corridor Improvements

- [LB-ELA_0081](#): Firestone BI Traffic Signal Upgrades & Safety Enhancements
- [LB-ELA_0145](#): Metro Bus Priority Lane Corridor along [Line 115](#) (Firestone BI)

- Connectivity from Garfield Av to Orchard Park in South Gate

- [LB-ELA_0159](#): Southern Ave. Pedestrian Connector Project, South Gate

F. Garfield Av & Imperial Highway Corridors

+ *Speaker(s):* Project Team Staff & Other

- Complete Street Improvements

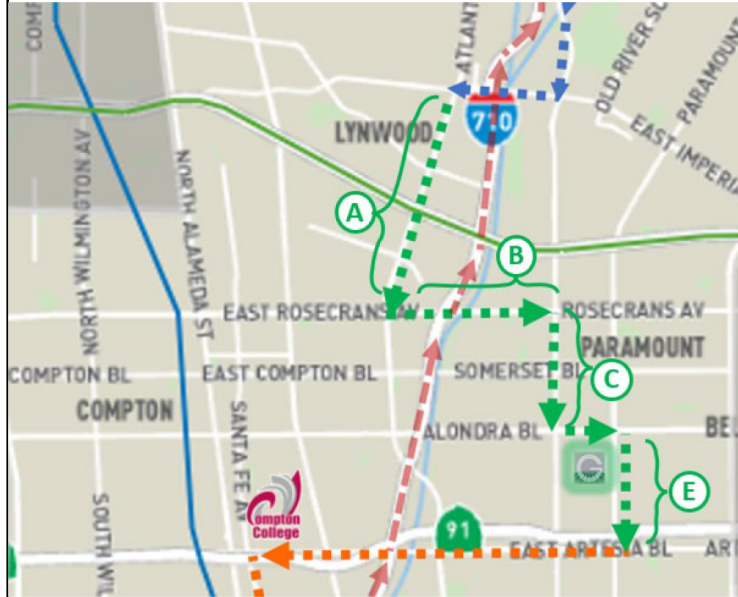
- [LB-ELA_0129](#): Garfield Avenue Improvement Project
- [LB-ELA_0059](#): Imperial Complete Street Corridor
- [LB-ELA_0119](#): Wright Road Improvement Project (South Gate)

G. Other Nearby Programs

+ *Speaker(s):* Project Team Staff & Other

- [LB-ELA_0209](#): South Downey Safe Routes to School Project (Phase 2)
- [LB-ELA_0210](#): Greenway Traffic Circle Improvement Project (Downey)
- [LB-ELA_0082](#): Enhanced Pedestrian Crosswalk (Rives Av/Adwen St, Downey)
- [LB-ELA_0084](#): Video Detection Upgrades (various intersections, Downey)
- [LB-ELA_0127](#): Lakewood Boulevard Improvement Project (Lakewood)

3 **Tour Sites Group #3:**
Lynwood to Paramount
 10:10am – 10:40am

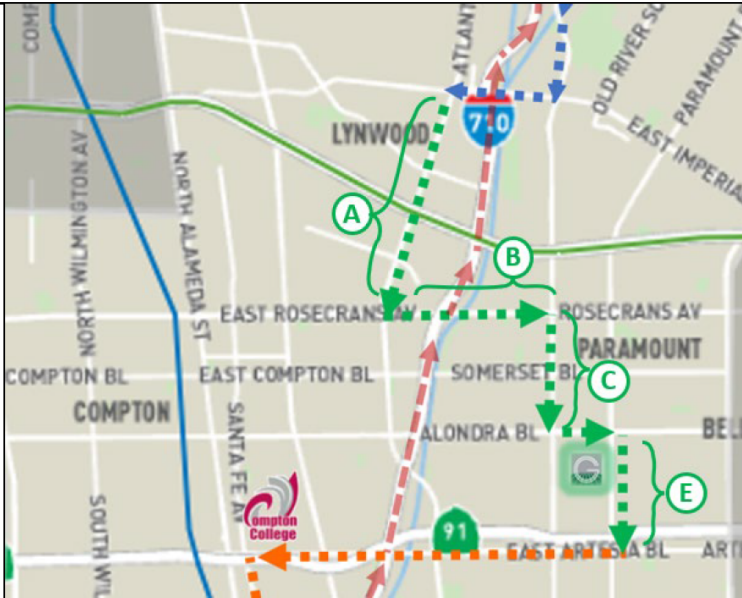


A. Atlantic Av Corridor

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - **Atlantic Av Complete Street**
 - 📍🚗 LB-ELA_0057: Atlantic Complete Street Corridor
 - **Transit and Pedestrian Improvements**
 - 🚏🚌 LB-ELA_0019: Atlantic Bus Only Lane & Transit Signal Prioritization (Next Gen)
 - 🚏🚇 LB-ELA_0002: C Line (Green) Eastern Extension (Norwalk)(LRT)
 - 🚏🚇 LB-ELA_0016: Connecting C Line (Green) and Metrolink Norwalk Station
 - 🚶🚶 LB-ELA_0095: Pedestrian Crosswalk Improvements (Atlantic/Brewster, Lynwood)
 - 🚏🚌 LB-ELA_0146: Metro Bus Priority Lane Corridor along [Line 260](#) (Atlantic BI)
 - **Roadway Improvements**
 - 📍🚗 LB-ELA_0096: Traffic Signal Improvements (various locations, Lynwood)
 - 📍🚗 LB-ELA_0097: Traffic Signal Improvements (various locations, Lynwood)
 - 📍🚗 LB-ELA_0098: City Re-Striping Projects (various locations, Lynwood)

B. Rosecrans Av Corridor

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - **Rosecrans Av & WSAB**
 - 📍🚗 LB-ELA_0104: Rosecrans Av Bridge
 - 📍🚗 LB-ELA_0110: Rosecrans Intersection Improvements
 - 🚶🚶 LB-ELA_0111: West Santa Ana Branch Bike & Pedestrian Trail (Paramount)
 - **Roadway improvements**
 - 📍🚗 LB-ELA_0096: Traffic Signal Improvements (various sites; Lynwood)
 - 📍🚗 LB-ELA_0097: Traffic Signal Improvements (various sites; Lynwood)
 - 📍🚗 LB-ELA_0120: Safety Related Road Improvement Projects (East Rancho Dominguez: Compton Bl, Atlantic Av, Rosecrans Av, Alondra Bl)



C. Garfield Av Corridor

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - Garfield Av Roadway Improvements
 - 📍🗺️ LB-ELA_0012: Garfield Widening (Paramount)
 - 📍🗺️ LB-ELA_0108: Garfield Ave. Intersection Improvements (Paramount)
 - 📍🗺️ LB-ELA_0105: Garfield Avenue Improvement Project (Paramount)

D. Alondra Bl Corridor

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - Alondra Bl Complete Streets & Other Roadway Improvements
 - 📍🗺️ LB-ELA_0060: Alondra Complete Street Corridor
 - 📍🗺️ LB-ELA_0107: Alondra Blvd. Bridges
 - 📍🗺️ LB-ELA_0109: Alondra Blvd. Intersection Improvements

E. Paramount Bl Corridor

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - Paramount Bl – Complete Street Example

F. Other

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - Other Nearby Projects/Programs
 - 📍🗺️ LB-ELA_0165: Compton Creek Bike Underpasses
 - 📍🗺️ LB-ELA_0168: Compton Transit Mgmt. Operations Center Enhancement



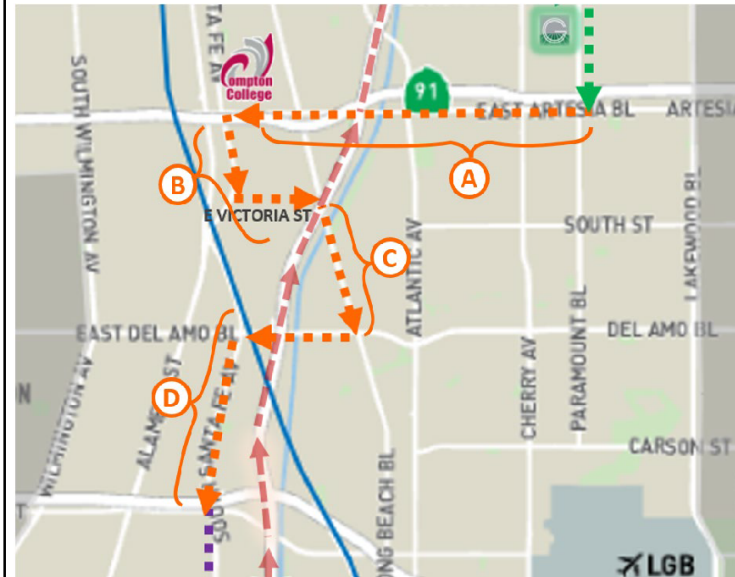
Restroom Break
10:40am – 10:55am



Restroom stop at Compton College

4

Tour Sites Group #4:
N. Long Beach to Carson
 10:55am – 11:25am



A. Artesia BI Corridor

- + *Speaker(s):* Project Team Staff & Other
- **Artesia BI Complete Street**
 - 📍🚶 LB-ELA_0056: Artesia Complete Street Corridor
- **Other Nearby Projects/Programs**
 - 🚧🚧 LB-ELA_0050: Route 91 overhead signs, landscaping and roadworker safety (Carson, Compton, Long Beach, Bellflower)
 - 🚲🚲 LB-ELA_0165: Compton Creek Bike Underpasses
 - 🚇🚇 LB-ELA_0168: Compton Transit Mgmt. Operations Center Enhancements
 - 🚌🚶 LB-ELA_0141: Metro Bus Priority Lane Corridor along [Line 60](#) (Long Beach BI)

B. Santa Fe Av / Victoria St

- + *Speaker(s):* Project Team Staff & Other
- **Goods Movement – Logistics and Distribution**
 - 🚛🚛 LB-ELA_0038: I-710 Auxiliary Lanes (Del Amo BI to Long Beach BI)
 - 🚂🚂 LB-ELA_0151: Goods Movement Freight Rail Study

C. Long Beach Av Corridor

- + *Speaker(s):* Project Team Staff & Other
- **Long Beach BI Complete Street**
 - 📍🚶 LB-ELA_0041: Route 1. Long Beach, Temple Av to De Forest Av
 - 📍🚶 LB-ELA_0044: Route 1. Long Beach, De Forest Av Undercrossing
 - 📍🚶 LB-ELA_0062: Long Beach Complete Street Corridor

D. Del Amo BI & S Santa Fe Av Corridors

- + *Speaker(s):* Project Team Staff & Other
- **Del Amo BI Corridor**
 - 🚧🚧 LB-ELA_0029: I-710/Del Amo Interchange Improvements
 - 🚶🚶 LB-ELA_0008: Blue Line First Last Mile Plan Improvements at Del Amo Station
 - 🚶🚶 LB-ELA_0158: Del Amo Pedestrian Gap Closure Project
- **City of Carson Citywide Improvements**
 - 🚶🚶 LB-ELA_0207: City of Carson Citywide Community Safety Improvement

E. Other

- + *Speaker(s):* Project Team Staff & Other
- **Other Nearby Projects/Programs**

5 **Tour Sites Group #5:**
Long Beach
 11:25am – 11:55am



A. Santa Fe Av Corridor

- + *Speaker(s):* Project Team Staff & Other

B. Willow St Corridor

- + *Speaker(s):* Project Team Staff & Other
- + **LB-ELA_0138:** Spring Avenue Pedestrian/Bicycle Overcrossing

C. Pacific Av Corridor

- + *Speaker(s):* Project Team Staff & Other

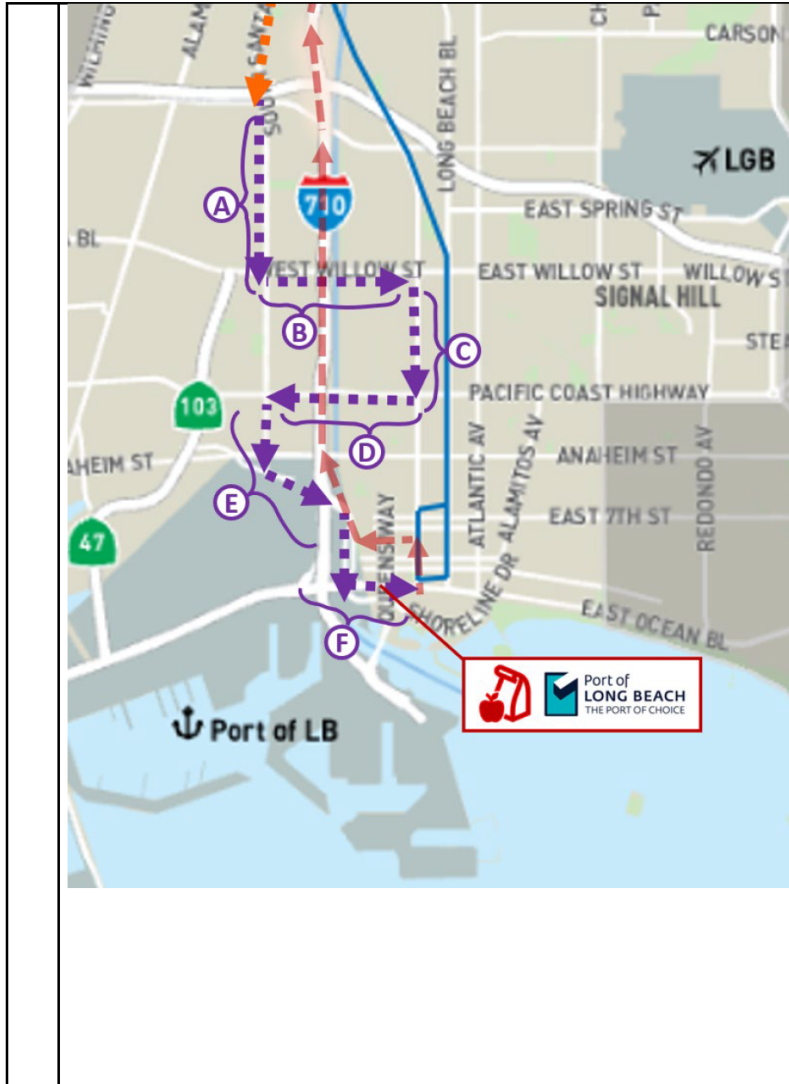
D. Pacific Coast Highway Corridor

- + *Speaker(s):* Project Team Staff & Other
- + **LB-ELA_0051:** Route 1. Transportation Management System (TMS) upgrades

E. Lower Westside Long Beach

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - LB-ELA_0091:** I-710/Anaheim Interchange Improvement
 - LB-ELA_0184:** Empty Container Management
 - LB-ELA_0185:** Freight Advanced Traveler Information Systems
 - LB-ELA_0024:** Pier 400 On Dock Rail Modernization
 - LB-ELA_0025:** Terminal Island Transfer Facility Modernization
 - LB-ELA_0026:** West Basin Container Terminal Railyard Modernization
 - LB-ELA_0124:** Port of Los Angeles National Multimodal Freight Network Improvement Program: Rail System Improvement Projects
 - LB-ELA_0011:** SR-47 Navy Way Interchange
 - LB-ELA_0021:** Alameda Corridor Terminus Enhancements
 - LB-ELA_0022:** Terminal Way Grade Separation
 - LB-ELA_0121:** Pier D Street Realignment
 - LB-ELA_0122:** Harbor Scenic Drive Roadway & Infrastructure Improvements
 - LB-ELA_0123:** Pico Avenue Street Improvement
 - LB-ELA_0131:** Port of Los Angeles National Multimodal Freight Network (NMFN) Program: Maritime Support Facility Access/Terminal Island Rail System Grade Sep.
 - LB-ELA_0132:** Pier 300 Wharf Expansion/Vessel Emission Reduction Project

LB-ELA Mobility Investment Plan – Corridor Tours (June 24 & 28, 2023)



F. Downtown Long Beach

- + *Speaker(s):* Project Team Staff & Other
- + *Topic(s) / Related Project(s):*
 - LB-ELA_0010: Shoemaker Bridge/Shoreline Drive (+park and wetland space)
 - LB-ELA_0160: A Line (Blue Line) Transit Priority/Signal Synchronization
 - LB-ELA_0175: Install Quad Safety Gates at all A Line [Blue Line] Crossings
 - LB-ELA_0171: Commuter Rail Maintenance, Repair, and Safety Projects
 - LB-ELA_0176: Install Supervisory Control & Data Acquisition System for A Line
 - LB-ELA_0136: Enhanced Transit Security (multiple jurisdictions)
 - LB-ELA_0130: Long Beach Transit (LBT) Solar Charging Electrification Project

F. Other Nearby Projects

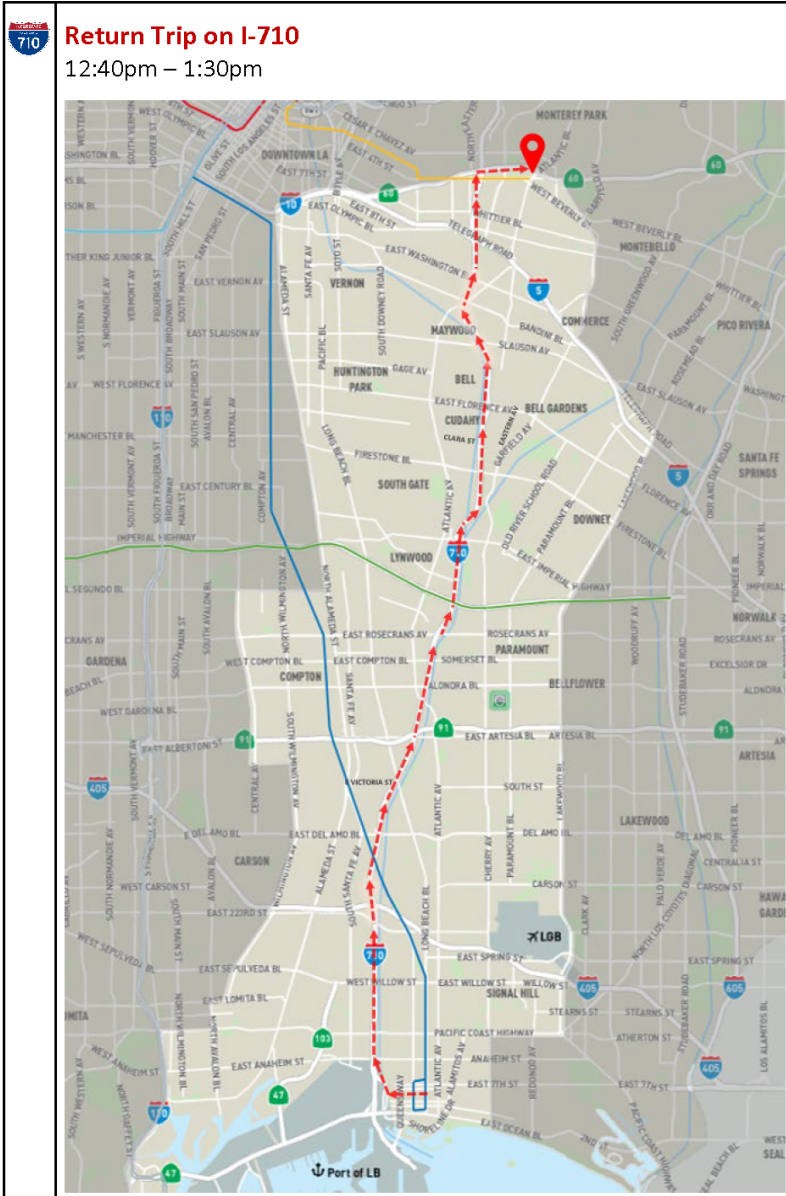
- + *Speaker(s):* Project Team Staff & Other
- LB-ELA_0162: City of Long Beach 8-to-80 Bikeways
- LB-ELA_0211: Long Beach Mid-City Pedestrian and Bicycle Connections
- LB-ELA_0094: Hill Street Pedestrian Bridge Overcrossing, Long Beach
- LB-ELA_0087: Traffic Signal Equipment Improvements
- LB-ELA_0088: Protected Left Turns at Signals (Long Beach)
- LB-ELA_0089: Emergency Vehicle Pre-emption in Long Beach
- LB-ELA_0090: Rectangular Rapid Flashing Beacons at Ped Crossings, Long Beach
- LB-ELA_0117: Burnett Street/Skyline Drive Improvement Project
- LB-ELA_0020: Sports Park Transportation Performance Modeling Network
- LB-ELA_0040: Stormwater BMPs (Wilmington/Long Beach)
- LB-ELA_0114: Walnut Pedestrian Pathway, Signal Hill
- LB-ELA_0112: Signal Coordination/ITS Projects (Signal Hill)
- LB-ELA_0116: Traffic Signal Operational Upgrades (Signal Hill)
- LB-ELA_0113: Orange Avenue Improvement Project (Signal Hill)
- LB-ELA_0115: California Avenue Improvement Project (Signal Hill)
- LB-ELA_0118: Bus Shelter Upgrades (Signal Hill)
- LB-ELA_0177: Add 2nd elevator to A Line Firestone & Slauson Stations



Lunch Break at Port of Long Beach

11:55pm – 12:40pm

- + *Catered lunch at Port of Long Beach*
- + *Brief presentation by Port of Long Beach*

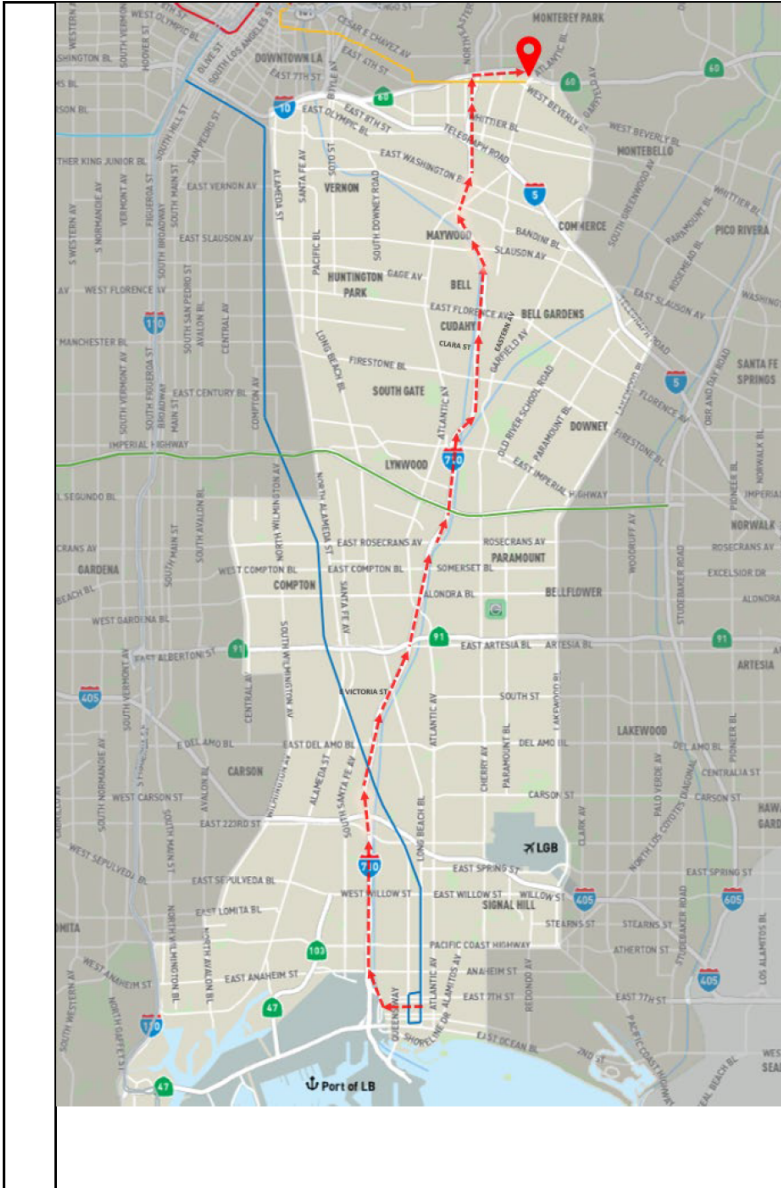


Return Trip on I-710
12:40pm – 1:30pm

A. I-710 to Atlantic Station Parking Structure (Tour Point of Origin)








































- + *Speaker(s)*: Project Team Staff & Other
- + *Topic(s) / Related Project(s)*:
 - **Increase Ridesharing and Rail/Bus Ridership**
Metro is in the business of moving volumes of people and not volumes of vehicles
 - 🚗🚗🚗 LB-ELA_0198: Carpool/Vanpool Programs
 - 📶🚗 LB-ELA_0199: Telecommuting Programs
 - 🚗🚗🚗 LB-ELA_0153: Congestion Pricing
 - 🚗🚗🚗 LB-ELA_0182: Express Lanes Strategic Initiative
 - **Increase Rail/Bus Ridership**
Improve the convenience and overall transportation options and experience for riders, commuters, and residents
 - 🚗🚗🚗 LB-ELA_0152: Transit Marketing and Education Program
 - 🚗🚗🚗 LB-ELA_0161: Transit Ambassador Program
 - 🚗🚗🚗 LB-ELA_0147: Transit Traveler Information System Application (ITS)
 - 🚗🚗🚗 LB-ELA_0169: Southeast LA Transit Improvement Program
 - 🚗🚗🚗 LB-ELA_0148: Transit Fare Discount Program
 - 🚗🚗🚗 LB-ELA_0164: Improved Frequency of Metro Buses in the LB-ELA Study Area
 - 🚗🚗🚗 LB-ELA_0140: Metro Micro Transit Zone(s)
 - 🚗🚗🚗 LB-ELA_0149: Increased Security Features at Metro’s Existing and Planned Light Rail Stations (multiple jurisdictions)
 - 🚗🚗🚗 LB-ELA_0203: Bus Stop Improvements (study area wide)
 - 🚗🚗🚗 LB-ELA_0189: Transit System Cleanliness/Maintenance
 - 🚗🚗🚗 LB-ELA_0219: Metrolink Regional Rail Line between Union Station-Long Beach
 - **Arterial Roadway Improvements**
 - 🚦🚦🚦 LB-ELA_0003: Integrated Corridor Management (ICM) Project
 - 🚦🚦🚦 LB-ELA_0167: I-710 Arterial Signal Performance Measurement
 - 🚦🚦🚦 LB-ELA_0215: I-710 Arterial Traffic Signal Control Communication Upgrades
 - 🚦🚦🚦 LB-ELA_0202: Traffic Calming Features
 - 🚦🚦🚦 LB-ELA_0205: Arterial/General Roadway Improvements Program
 - **Freeway Improvements**
 - 🚦🚦🚦 LB-ELA_0028: I-710/Willow Interchange Improvements
 - 🚦🚦🚦 LB-ELA_0029: I-710/Del Amo Interchange Improvements

LB-ELA Mobility Investment Plan – Corridor Tours (June 24 & 28, 2023)



- LB-ELA_0030:** I-710/Long Beach Blvd. Interchange Improvements
- LB-ELA_0031:** I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors
- LB-ELA_0032:** I-710/Imperial Interchange Improvements
- LB-ELA_0033:** I-710/Firestone Interchange Improvements
- LB-ELA_0034:** I-710/Florence Interchange Improvements
- LB-ELA_0035:** I-710 Auxiliary Lanes (Willow to Wardlow)
- LB-ELA_0036:** I-710 / I-405 Connector Project Improvements
- LB-ELA_0037:** I-710/I-105 Connector Project Improvements
- LB-ELA_0038:** I-710 Auxiliary Lanes (Del Amo Boulevard to Long Beach Bl)
- LB-ELA_0043:** Bridge Rehab at I-710 Hobart Rail Yard Overhead No. 53
- LB-ELA_0045:** Bridge Rehab at SR-91/LA River Bridge No 53-2143F
- LB-ELA_0053:** I-405 (Long Beach) New maintenance station building.
- LB-ELA_0091:** I-710/Anaheim Interchange Improvement
- LB-ELA_0092:** I-710/PCH Interchange Improvement
- LB-ELA_0093:** I-710/Wardlow Interchange Improvement
- LB-ELA_0156:** Traffic Controls at I-710 Freeway Ramps
- LB-ELA_0180:** I-710 Truck Bypass Lanes
- LB-ELA_0181:** Freeway Lids, Caps, and Widened Bridge Decks
- **Freeway Amenities / ITS**
 - LB-ELA_0039:** I-710 (Long Beach to Alondra Bl) enhance highway worker safety
 - LB-ELA_0046:** I-405 freeway amenity improvements
 - LB-ELA_0048:** I-105, pump house enhancements at Garfield Av Pump Station
 - LB-ELA_0049:** I-710, replace pump plants in South Gate, Downey, Bell Gardens
 - LB-ELA_0050:** SR-91, upgrade freeway amenities, overhead signs/structures
 - LB-ELA_0052:** SR-47, Transportation Mgmt. System (TMS) element upgrades
 - LB-ELA_0054:** I-710, build ZEV charging site at Humphrey Maintenance Station
 - LB-ELA_0137:** Freeway Soundwalls
 - LB-ELA_0155:** I-710, Drought Tolerant Landscaping, Hardscaping and Aesthetics
 - LB-ELA_0157:** I-710 Particulate Matter (PM) Reduction Pilot Project
 - LB-ELA_0188:** Freeway Landscaping / Maintenance
 - **Goods Movement / Zero Emissions**
 - LB-ELA_0154:** I-710 Zero-Emission Truck Travel Zone Restriction

LB-ELA Mobility Investment Plan – Corridor Tours (June 24 & 28, 2023)

		<ul style="list-style-type: none">   LB-ELA_0183: Zero Emissions Truck Lane   LB-ELA_0023: Clean Truck Infrastructure   LB-ELA_0151: Goods Movement Freight Rail Study   LB-ELA_0217: Freight Rail Electrification Pilot Project □ <u>Clean Air/Env./Housing/Employment/Other Corridor-wide Projects/Programs</u> <ul style="list-style-type: none">   LB-ELA_0133: LB-ELA Corridor Community Health Benefit Program   LB-ELA_0191: Zero Emission Infrastructure for Autos   LB-ELA_0192: Bus Electrification Projects   LB-ELA_0218: Air Quality Monitoring Stations (multiple jurisdictions)   LB-ELA_0134: LB-ELA Corridor Energy / GHG Emissions Reduction Program   LB-ELA_0187: LB-ELA Corridor “Urban Greening” Initiative   LB-ELA_0190: Public Art / Aesthetics   LB-ELA_0135: Housing Stabilization Policies   LB-ELA_0193: Transit Oriented Communities /Land Use   LB-ELA_0194: Homeless Programs   LB-ELA_0186: Economic Stabilization Policies   LB-ELA_0195: Targeted Hire Programs   LB-ELA_0196: Employment/Recruitment Initiatives   LB-ELA_0197: Vocational Educational Programs   LB-ELA_0004: Long Beach-East Los Angeles Corridor Clean Truck Program
	<p>Disembark, Closing Remarks, and Adjourn Arrival to tour’s point of origin 1:30pm – 1:45pm</p>	<ul style="list-style-type: none"> + <i>Disembark bus at point of origin: Metro A (Blue) Line Artesia Station parking lot</i> + Thank participants, closing remarks/next steps, and promote submittal of additional feedback as well as access to all available resources + Adjourn



Long Beach-East Los Angeles Corridor Plan

Plan de Inversión en Movilidad del Corredor Long Beach-East LA



Story Map



TYPE ACTIVE TRANSPORTATION / TRAVEL DEMAND MANAGEMENT (TDM)



TYPE: ACTIVE TRANSPORTATION / TRAVEL DEMAND MANAGEMENT (TDM)

Learn More –
Explore StoryMap



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Active Transportation

- > Refers to human powered transportation, and low speed electronic assist devices.
- > Examples include but are not limited to bicycles, tricycles, wheelchairs, electric wheelchairs, scooters, skates, and skateboards.

Travel Demand Management (TDM)

- > A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle.
- > For example, TDM seeks to reduce the number of solo drivers and to increase the use of carpools, vanpools, buses or trains, or walking or biking.
- > TDM can be an element of Transportation Systems Management (TSM).





TYPE: ACTIVE TRANSPORTATION / TRAVEL DEMAND MANAGEMENT (TDM)

SUBTYPES



Bicycle Routes / Facilities

- > New Bike Paths/Trails
- > New Buffer/Barrier-Protected Bike Routes
- > New Bike Lanes
- > New, Signed Bike Routes



Pedestrian / First Last Mile

- > New pedestrian/bike:
 - Overcrossings
 - Pathways
 - Connections to rail, transit, LA River
- > New Crosswalks, sidewalks



Safety & Amenities

- > High visibility crosswalks
- > Wider sidewalks
- > Street crossing enhancements
- > Bike parking, repair stations
- > Bike share programs
- > Traffic controls for ped/bikes
- > ADA improvements
- > Shading, trees, landscaping
- > Security & lighting



TDM Strategies

- > Vanpools/carpool programs
- > Telecommuting programs
- > Promotional Campaigns to encourage Alternative Modes of Travel



TYPE: ACTIVE TRANSPORTATION / TRAVEL DEMAND MANAGEMENT (TDM)

Range of Improvements (Partial List)

Bike Lanes



New bicycle lane on existing roadways, indicated by striping, signage, and physical barriers.

Shared-Use Path



New bicycle paths just for bicyclists and pedestrians.

Pedestrian Safety and Amenities



Wider sidewalks, lighting, benches, shade trees, landscaping, and trash receptacles to improve the safety and comfort of the pedestrian experience.

Crossing Safety Enhancements



High Visibility Paint, Flashing Signals, Pedestrian Safety Island, Curb Extensions, or Bulb-outs to create short crossing distances and increased awareness of crossing locations.

Bike Share Programs



Low-cost, short-term bike rental from strategically placed docks or stations.

Bike/Ped Traffic Controls



Leading Pedestrian Interval, Bike crossing signals, No turn on red signals, signals and controls to reduce conflicts between pedestrians, bicyclists, and drivers.



Type

Active Transportation & TDM

Subtype



Bicycle Routes / Facilities



Metro



TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities

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> Bicycle route & facilities under consideration include:

- New Bike Paths/Trails
- New Buffer/Barrier Protected Bike Routes
- New Bike Lanes
- New, Signed Bike Routes

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0007	LA River Path – Central LA
LB-ELA_0017	Regionally significant bike projects from the Metro Active Transportation Plan
LB-ELA_0055	I-710 LA River Bike Path
LB-ELA_0066	Randolph Bike & Pedestrian Project
LB-ELA_0111	West Santa Ana Branch Bike & Pedestrian Trail
LB-ELA_0128	Randolph Street Bike & Pedestrian Facilities Project
LB-ELA_0162	City of Long Beach 8-to-80 Bikeways
LB-ELA_0163	LB-ELA Corridor Bicycle Gap Closure Projects





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities

> Types of Bike Facilities & Paths

Class 1 (not street-running, separate)



Class 2 (on-street, no buffer)



Class 2B (on-street, with buffer)



Class 3 (on-street, shared lane)



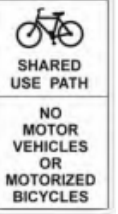
Class 4 (on-street, separate)





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities



Bike Facilities/Paths – Class 1

- > Paved rights-of-way completely separated from streets.
- > Often located along waterfronts, creeks, railroad rights-of-way or freeways with a limited number of cross streets and driveways.
- > Typically shared with pedestrians and often called mixed-use paths.





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities

Bike Facilities/Paths – Class 2

- > On-street facilities designated for bicyclists using stripes and stencils.
- > Preferred treatment for all arterial and collector streets on the bikeway network.
- > Not typically installed on low-volume, low-speed residential streets.





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities



Bike Facilities/Paths – Class 2B

- > Includes buffer striping.
- > Provides greater separation between bicyclists and parked or moving vehicles.





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities

Bike Facilities/Paths – Class 3

- > Streets designated for bicycle travel, shared with motor vehicles.
- > Designed on suitable streets that provide better (or needed) connectivity than other streets.
- > Routes are marked with signs and/or shared lane bicycle (aka "sharrow") pavement markings intended to encourage bicyclists to ride clear of the "door zone" and to alert motorists to expect bicyclists to occupy the full lane.





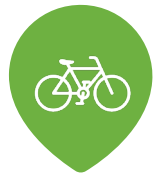
TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Bicycle Route & Facilities

Bike Facilities/Paths – Class 4

- > Streets designated for bicycle travel, shared with motor vehicles.
- > Designed on suitable streets that provide better (or needed) connectivity than other streets.
- > Routes are marked with signs and/or shared lane bicycle (aka "sharrow") pavement markings intended to encourage bicyclists to ride clear of the "door zone" and to alert motorists to expect bicyclists to occupy the full lane.





TYPE: ACTIVE TRANSPORTATION

SUBTYPE: Bicycle Route & Facilities

CASE STUDY: Bike Facilities/Paths Rail to River Active Transportation Corridor Project – Segments A & B (LB-ELA_0066 & LB-ELA_0128)

Segment A – Rail to Rail (metro.net/r2rb)

- > Will connect the Metro K Line, J Line (Silver), and A Line (Blue).
- > Under construction; targeted for completion in late 2024.

Segment B – Rail to River (metro.net/r2ra)

- > Will connect the Metro A Line (Blue) Slauson Station to LA River.
- > Supplemental Alternatives Analysis being conducted to study/re-evaluate alternatives.



Type



Active Transportation & TDM

Subtype



**Pedestrian &
First/Last Mile Improvements**



TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Pedestrian & First/Last Mile (FLM)



> Pedestrian & FLM improvements under consideration include:

- New pedestrian/bike overcrossings.
- New pedestrian/bike pathways.
- New pedestrian/bike connections to rail, transit, LA River.
- New crosswalks, sidewalks.

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0005	Rail to River Active Transportation Corridor Segment A
LB-ELA_0006	Rail to River Active Transportation Corridor Segment B
LB-ELA_0008	Blue Line First Last Mile Plan Improvements
LB-ELA_0070	Pedestrian Bridge
LB-ELA_0076	Pedestrian and Bike Facilities
LB-ELA_0082	Enhanced Pedestrian Crosswalk (Rives Ave. & Adwen St.)
LB-ELA_0094	Hill Street Pedestrian Bridge Overcrossing
LB-ELA_0102	Pedestrian and Bicycle Master Plan improvements
LB-ELA_0114	Walnut Pedestrian Pathway
LB-ELA_0138	Spring Avenue Pedestrian/Bicycle Overcrossing
LB-ELA_0139	Humphreys Avenue Pedestrian/Bicycle Overcrossing
LB-ELA_0158	Del Amo Pedestrian Gap Closure Project
LB-ELA_0159	Southern Ave. Pedestrian Connector Project
LB-ELA_0204	Pedestrian Gap Closure Projects
LB-ELA_0211	City of Long Beach Mid-City Pedestrian and Bicycle Connections
LB-ELA_0213	WSAB Light Rail Station FLM Bikeway Safety & Access Project
LB-ELA_0220	Micromobility Pilot Project



TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Pedestrian & First/Last Mile (FLM)

Pedestrian

- > Any person who travels by foot or a wheeled conveyance that is not a bicycle.
- > Includes scooters, wheelchairs and other mobility devices.



Pedestrian/Bike Overcrossing

- > Also called pedestrian/bicycle bridges.
- > Provide critical links in the bicycle/pedestrian system by joining areas separated by a variety of “barriers”
 - Arterial roads
 - Freeways
 - Railroad tracks
- > Address real or perceived safety issues by providing users a formalized means for traversing “problem areas.”



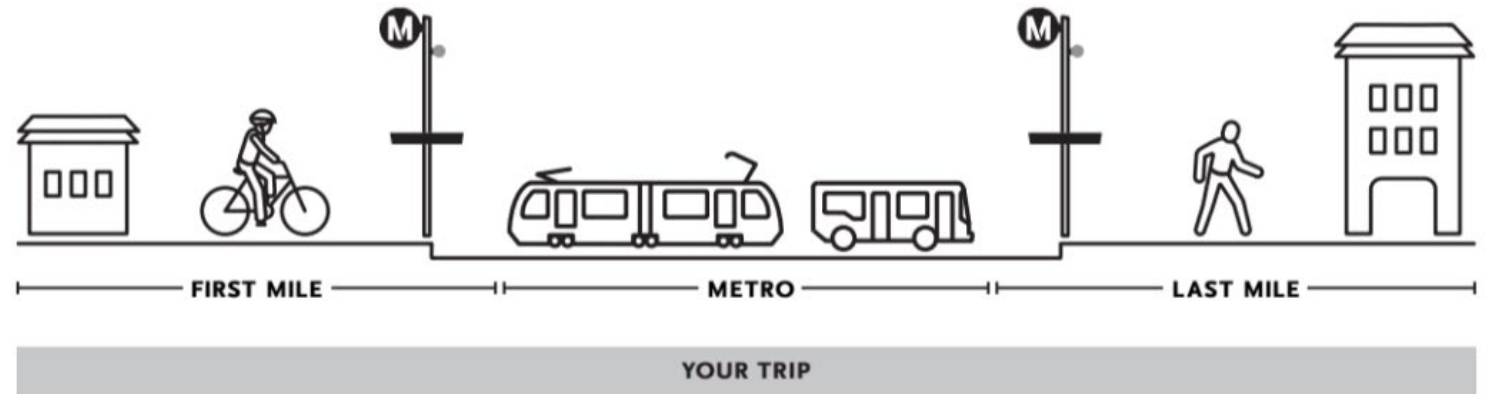


TYPE: ACTIVE TRANSPORTATION / TDM

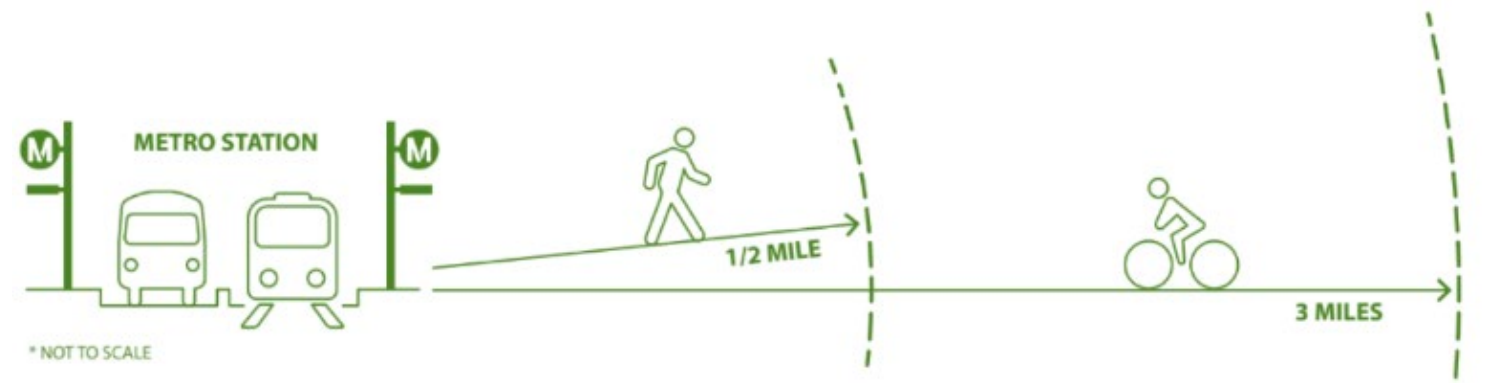
SUBTYPE: Pedestrian & First/Last Mile (FLM)

First/Last Mile

- > The first and last part of the journey that riders walk, bike or roll to and from their nearest station or bus stop.
- > These connections provide pathways to transit for people of all ages and abilities.
- > Includes improvements to street / sidewalk infrastructure for enhancing access and safety around Metro transit areas.
- > Learn more at:
www.metro.net/about/first-last



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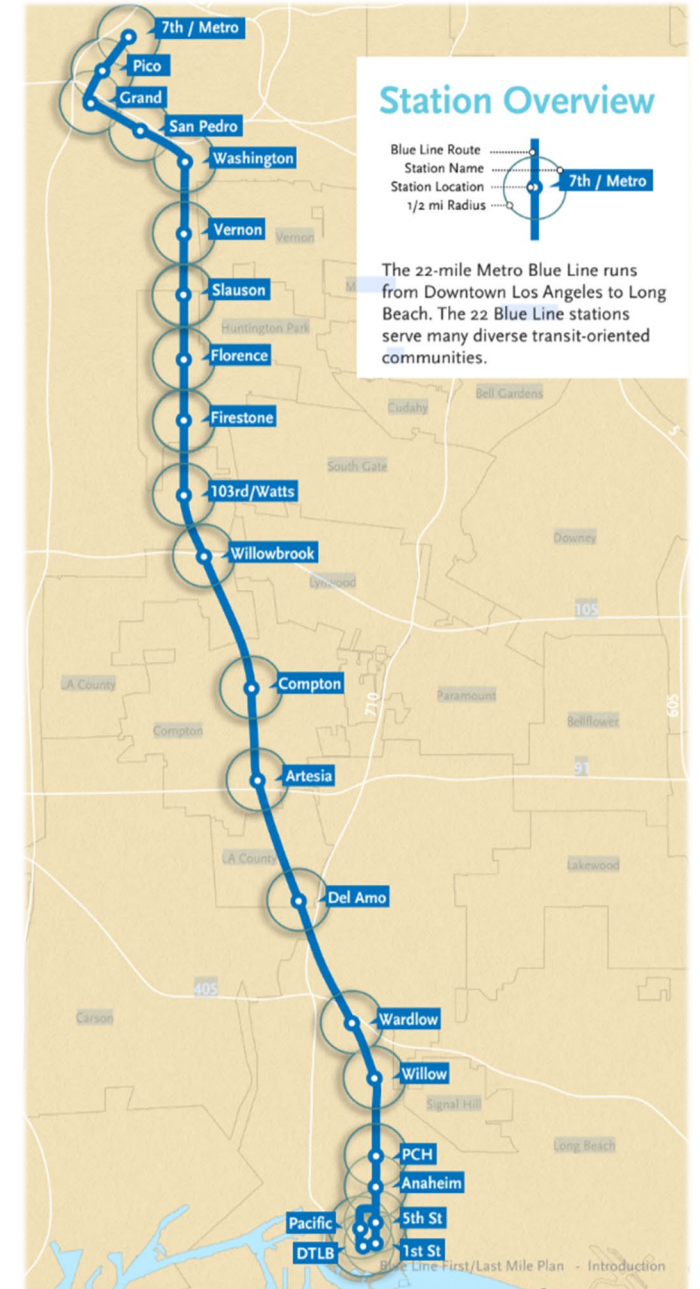
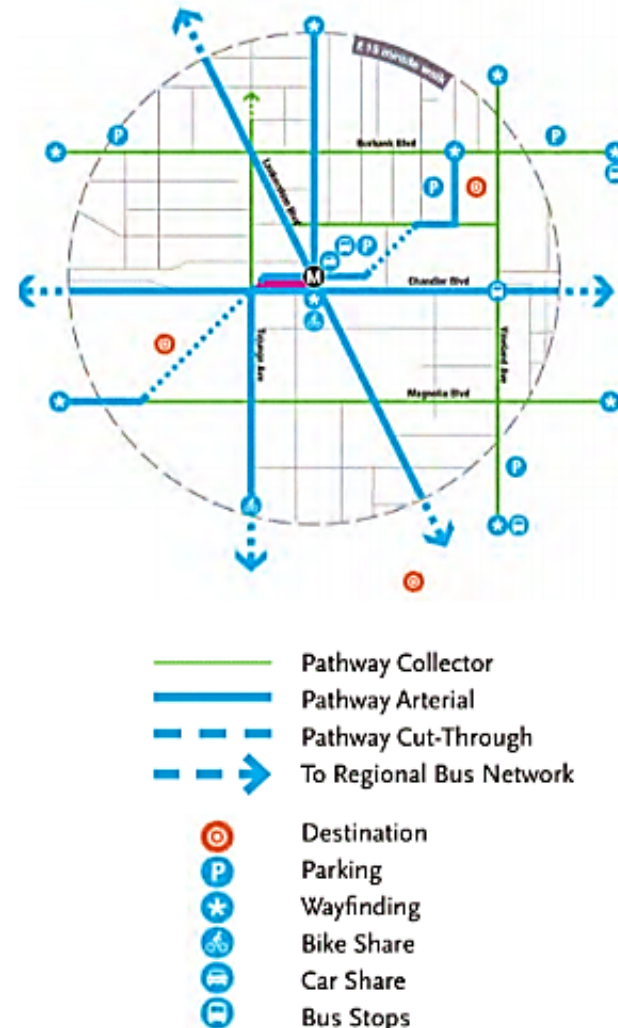


TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Pedestrian & First/Last Mile (FLM)

CASE STUDY: Pedestrian & FLM Blue Line First Last Mile Plan Improvements (LB-ELA_0008)

- > Prepared for all 22 Metro A Line (Blue) stations
- > Station-by-station recommendations, including:
 - Pedestrian improvements (sidewalks, crosswalks, lighting)
 - Land scaping, including more trees to supply shade and encourage walking
 - Bike lanes and supporting facilities
 - Bus stop improvements
 - Pickup/drop-off locations near stations
- Learn more about FLM at: metro.net/first-last



Type



Active Transportation & TDM

Subtype



Safety & Amenities



TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Safety & Amenities



> Safety & amenity improvements under consideration include:

- High visibility crosswalks
- Wider sidewalks
- Street crossing enhancements
- Bike parking, repair stations
- Bike share programs
- Traffic controls for ped/bikes
- ADA improvements
- Shading, trees, landscaping
- Security & lighting

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0090	Rectangular Rapid Flashing Beacons at Pedestrian Crossings
LB-ELA_0095	Pedestrian Crosswalk Improvements
LB-ELA_0165	Compton Creek Bike Underpasses
LB-ELA_0170	Huntington Park Safe Routes for Seniors & Students
LB-ELA_0200	Bike Share Programs and Bicycle Amenities
LB-ELA_0201	Pedestrian / Bicycle Enhancements and Safety Features
LB-ELA_0206	City of Bell Gardens Pedestrian and Bicycle Improvements
LB-ELA_0207	City of Carson Citywide Community Safety Improvements
LB-ELA_0208	Salt Lake Avenue Pedestrian Accessibility Project
LB-ELA_0209	South Downey Safe Routes to School Project (Phase 2)
LB-ELA_0210	Greenway Traffic Circle Improvement Project
LB-ELA_0212	Tweedy Boulevard Active Transportation Improvements
LB-ELA_0214	I-710 Livability Initiative
LB-ELA_0216	Bicycle Safety and Education Program (BEST)

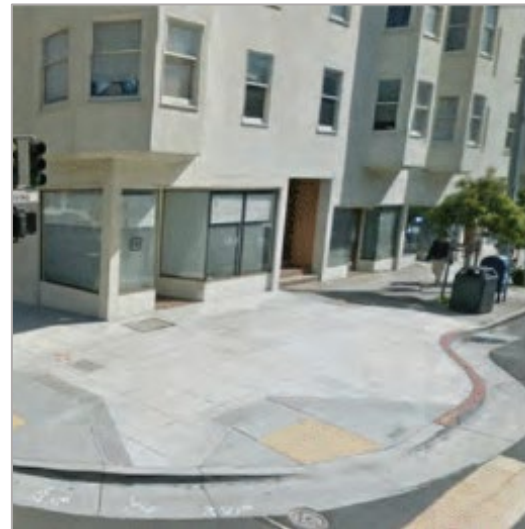


TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Safety & Amenities

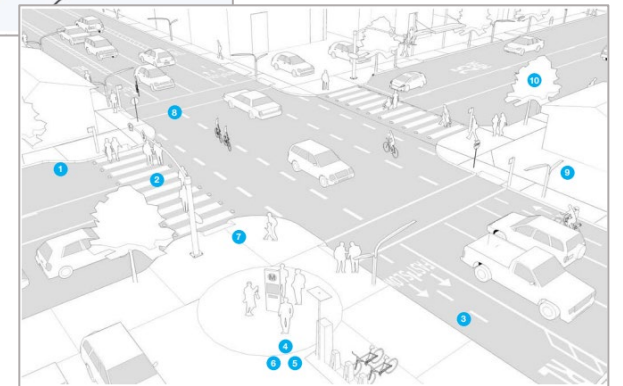
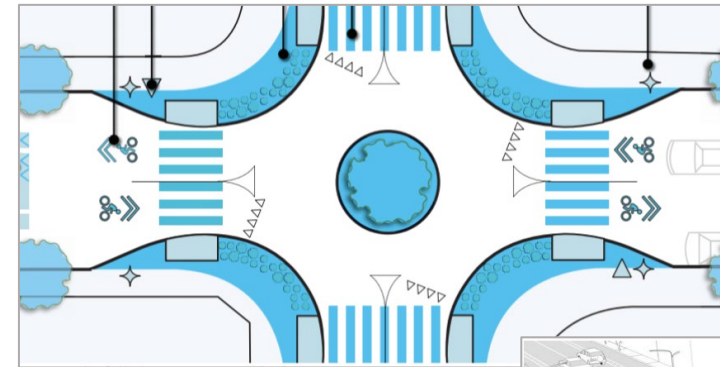
Safety

- > Pertains to the measures taken to reduce the risk of road traffic injuries and death.



Amenities

- > Roadway features that help to provide comfort, convenience, and safety.





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Safety & Amenities

Raised Islands

- > Provides a raised median that serves as a physical separation between opposing vehicle travel lanes.
- > Also offers an opportunity for landscaping or visual enhancements to a roadway corridor.
- > A place of refuge for a pedestrian crossing a multi-lane street.
- > All in support of improved and safe traffic flow.





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Safety & Amenities

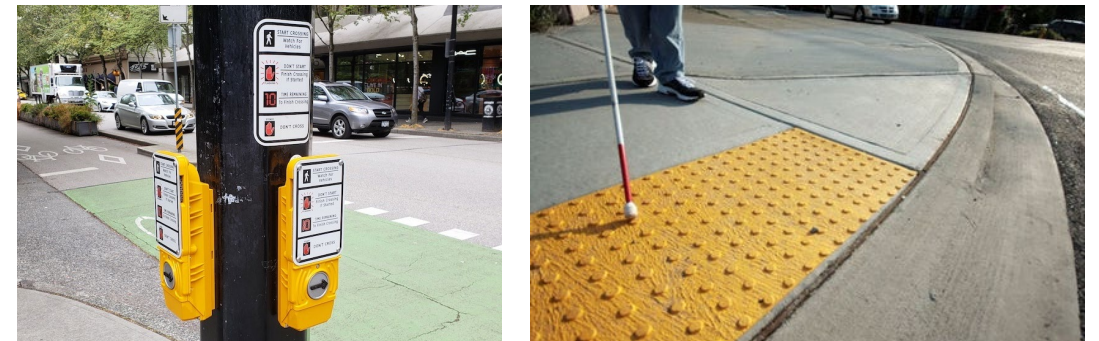
Traffic controls (traffic signals, stop signs)

- > Control of traffic via any of a number of passive rules or signs.
 - Travel way delineations
 - Rights-of-way / rules-of-the-road
 - Traffic markings and signs
- > Police officers and traffic signals, to optimize safe and efficient flows.



Accessible Pedestrian Signals (APS)

- > A pedestrian push button that communicates when to cross the street in a non-visual manner
 - Audible tones
 - Speech messages
 - Vibrating surfaces





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: Safety & Amenities

Rectangular Rapid Flashing Beacons (RRFBs)

- > RRFB devices include two rectangular shaped yellow indications, each with an LED-array-based light source, that flash with high frequency when activated.
- > Pedestrian-actuated conspicuity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks.



HAWK Beacon or Pedestrian Hybrid Beacons (PHB)

- > Warn and control traffic at unsignalized locations
- > Assist pedestrians in crossing a street or highway at a marked crosswalk.
- > Unlike a traffic signal, the PHB rests in dark until a pedestrian activates it via pushbutton.
- > When activated, the beacon displays a sequence of flashing and solid lights that indicate the pedestrian walk interval and when it is safe for drivers to proceed.





TYPE: ACTIVE TRANSPORTATION / TDM

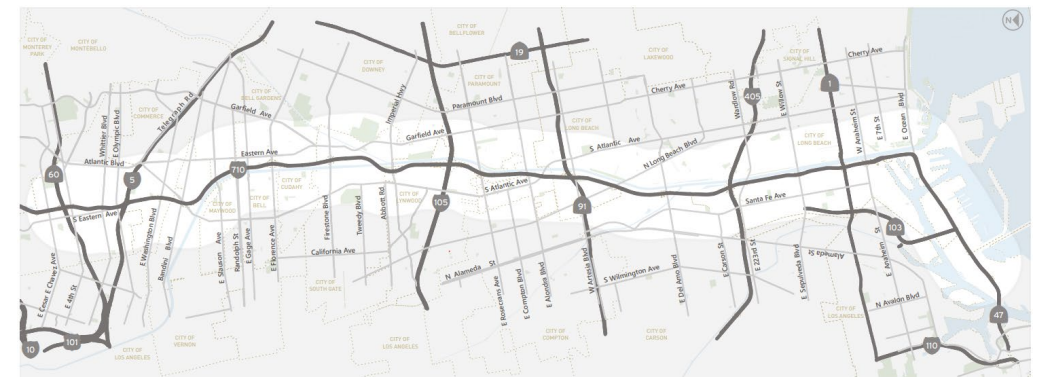
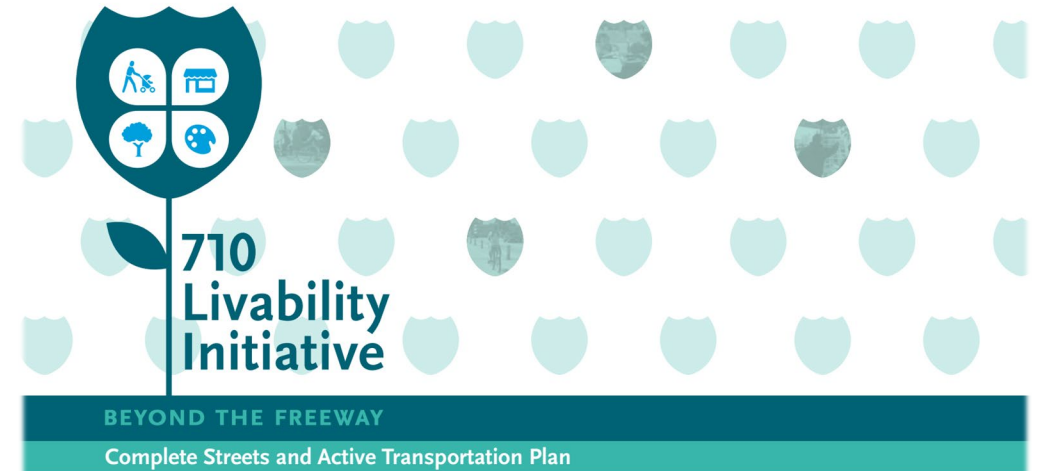
SUBTYPE: Safety & Amenities

CASE STUDY:

I-710 Livability Initiative (LB-ELA_0214)

- > Led by the Gateway Cities Council of Governments and Metro
- > Planned in coordination with corridor cities and communities located one-mile east and west of the I-710.
- > Objective: improve street accessibility for all modes of transportation—walking, bicycling, bus and train, and to improve connections across the freeway.
- > Potential Benefits to I-710 Neighborhoods
 - Upgraded crosswalks and traffic signals to benefit all commuters
 - New Bicycle Lanes and Bicycle stations
 - Much needed Shade at Bus Stops and Rest Areas
 - Improved Lighting for better visibility and safer streets
 - Better access to the LA River, Parks and Open Space
 - Community Beautification through Public Art project

> Learn more at: www.gatewaycog.org/initiatives-and-projects/intelligent-transportation-systems/710-livability



CH 1 | WHAT IS THE I-710 LIVABILITY INITIATIVE?

I-710 LIVABILITY INITIATIVE | COMPLETE STREETS AND ACTIVE TRANSPORTATION PLAN

Type



Active Transportation & TDM

Subtype



TDM Strategies



TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: TDM Strategies

Learn More –
Explore StoryMap



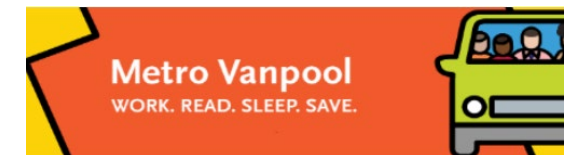
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> TDM Strategies

- > A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle.
- > For example, TDM seeks to reduce the number of solo drivers and to increase the use of carpools, vanpools, buses or trains, or walking or biking.
- > TDM can be an element of Transportation Systems Management (TSM).

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0198	Carpool/Vanpool Programs
LB-ELA_0199	Telecommuting Programs





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: TDM Strategies

Carpool

- > Also known as High-Occupancy Vehicle (HOV), is a lane restricted to vehicles with two (and in some cases three) or more occupants to encourage carpooling.
- > Vehicles include automobiles, vans, buses, and taxis.

Vanpool

- > A vanpool is generally a group of between 5 to 15 people with similar travel patterns who ride to work or other places in a shared vehicle (most often a van).





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: TDM Strategies

Telecommuting

- > The ability for an employee to complete work assignments from outside the traditional workplace.
- > Supported with the use of telecommunications tools, such as phone, email, and other online communication tools.



Hybrid Work Schedules

- > An arrangement that informs when employees should work remotely or from the office.
- > Here, each employee's needs are considered while prioritizing your organization's goals.





TYPE: ACTIVE TRANSPORTATION / TDM

SUBTYPE: TDM Strategies

CASE STUDY: Metro Rideshare/Shared Mobility (LB-ELA_198)

Goal: Take single occupancy vehicles off the road.

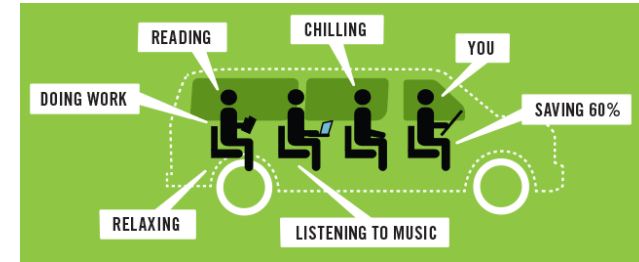
1. Helps ease work commute by providing a ride in a van with others you know and work with!
2. Reduces emissions per person.
3. Provides transit service in areas and at times that lack it!

Metro services include:

- > Carpooling/Ridematching Services
- > Metro Vanpool
- > Metro Bike Share/Active Transportation

Learn more at:

www.metro.net/riding/rideshare





TYPE ARTERIAL ROADWAYS



TYPE: ARTERIAL ROADWAY

Arterial Roadway

- > A high-capacity road that carries longer-distance flows between important centers of activity.



Learn More –
Explore StoryMap



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TYPE: ARTERIAL ROADWAY

Range of Improvements (Partial List)

Intersection Improvements



Turn lanes and other design features to reduce traffic queues at congested intersections.

Traffic Calming Features



Roundabouts, speed humps, and other design features or signage to slow traffic on local streets or near schools.

Traffic Management Features



Traffic signal coordination on major arterial corridors to maximize “green time” based on actual traffic conditions.

Added Roadway Lanes



Roadway reconfiguration to add travel lanes, designate parking lanes for peak hour travel, or establish bus only lanes

Parking Options



Additional street parking, public/shared parking lots, or public/shared parking structures.

Visual Improvements



Landscaping, hardscaping, public art, and other design features to improve the appearance of the roadway.



TYPE: ARTERIAL ROADWAY

SUBTYPES



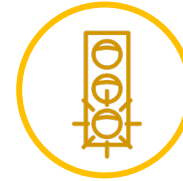
Complete Streets

- > Green spaces, trees, bioswales
- > Bike/pedestrian improvements
- > Public art
- > Signage
- > Transit stop amenities
- > Operational/safety improvements
- > ADA upgrades
- > LED street lighting
- > Stormwater retention



TSM* / ITS**

- > Traffic / Ped signal upgrades
- > Video camera installation
- > Equipment upgrades
- > Emergency vehicle priority
- > Signage
- > Signal Synchronization
- > Advanced technologies to manage traffic and to inform traveling public



Traffic Calming

- > Speed Reductions
- > Speed Bumps
- > Truck Restrictions in Neighborhoods
- > Roundabouts
- > Road Diets
- > Stop Signs, Traffic Signals
- > Speed Enforcement Cameras
- > Flashing Crosswalks
- > School Zone Warning Devices



General Local / Regional Roadway

- > Stormwater treatment
- > Upgrade traffic signals, sidewalks, crosswalks, driveways, ramps
- > New/improved bridges
- > ADA upgrades
- > Intersection Improvements
- > Pedestrian circulation / safety
- > Streetscape improvements
- > Bike and pedestrian improvements
- > Roadway widening/realignment

*TSM *Signal Coordination, Transportation Systems Management (TSM)*
 **ITS *Integrated Transportation Systems*



Type

Arterial Roadways

Subtype



Complete Streets



Metro



TYPE: ARTERIAL ROADWAYS

SUBTYPE: Complete Streets

Learn More –
Explore StoryMap



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> Complete Steet improvements under consideration include:

- Green spaces, trees, bioswales
- Bike/pedestrian improvements
- Public art
- Signage
- Transit stop amenities
- Operational/safety improvements
- ADA upgrades
- LED street lighting
- Stormwater retention

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0010	Shoemaker Bridge/Shoreline Drive
LB-ELA_0056	Artesia Complete Street Corridor
LB-ELA_0057	Atlantic Complete Street Corridor
LB-ELA_0058	Florence Complete Street Corridor
LB-ELA_0059	Imperial Complete Street Corridor
LB-ELA_0060	Alondra Complete Street Corridor
LB-ELA_0061	Slauson Complete Street Corridor
LB-ELA_0062	Long Beach Complete Street Corridor
LB-ELA_0064	Gage Avenue Street Improvements
LB-ELA_0086	Gage Avenue Operational and Safety Improvements
LB-ELA_0126	Slauson Avenue Corridor & Citywide Pedestrian, Bike, Transit Improvements
LB-ELA_0127	Lakewood Boulevard Improvement Project
LB-ELA_0129	Garfield Avenue Improvement Project
LB-ELA_0117	Burnett Street/Skyline Drive Improvement Project
LB-ELA_0010	Shoemaker Bridge/Shoreline Drive



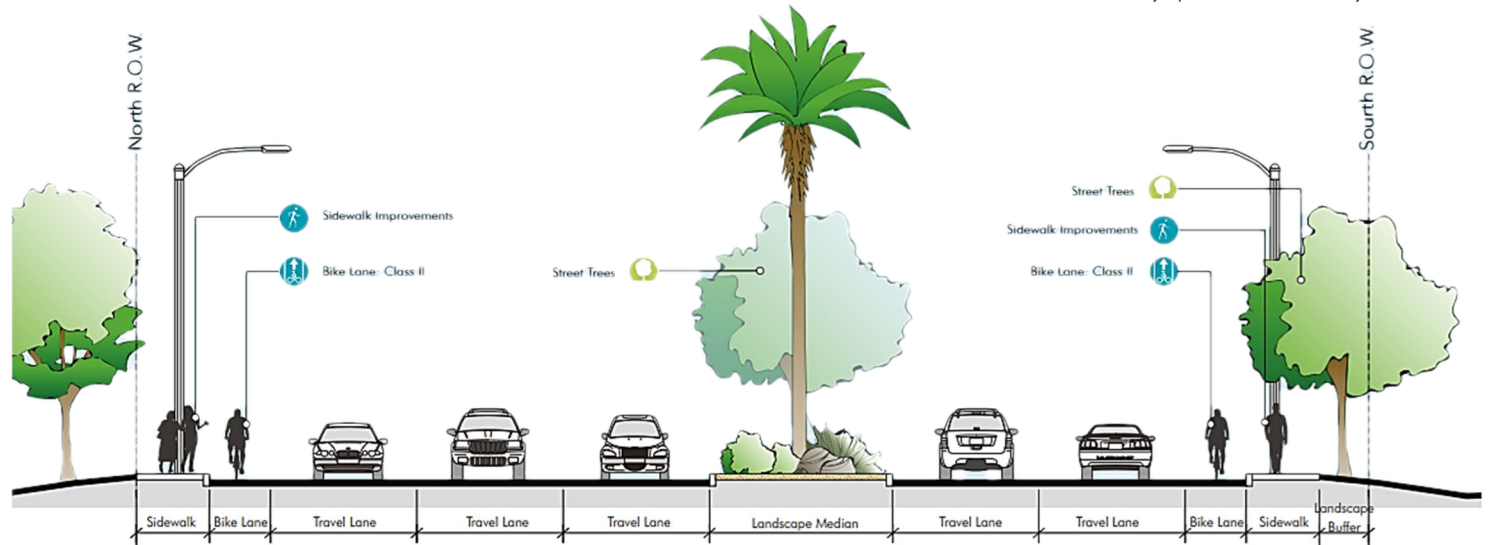
TYPE: ARTERIAL ROADWAYS

SUBTYPE: Complete Streets

Complete Streets

- > Streets that are designed and operated to enable safe access for all roadway users of all ages and abilities, including pedestrians, bicyclists, motorists and transit riders.
- > Strategies can include traffic calming, bicycle priority streets (bicycle boulevards) and pedestrian connectivity
- > Increase physical activity, improve, connectivity to the regional bikeway/greenway networks, local businesses and parks.

Source: Livability Report - Metro I-710 Corridor Project





TYPE: ARTERIAL ROADWAYS

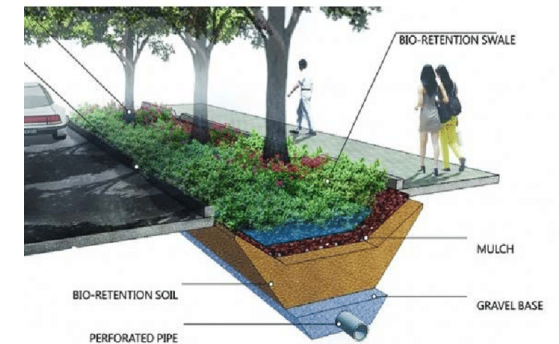
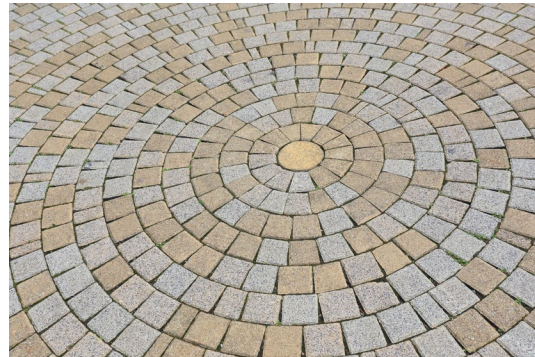
SUBTYPE: Complete Streets

Thoroughfare

- > A road or path forming a route between two places.

Hardscaping

- > Refers to any man made structure within landscaping design that is made of inanimate materials like gravel, brick, wood, pavers, or stone.
- > Any solid structure in an outdoor area that is not plant life is considered hardscape.



Bioswale

- > Channels designed to concentrate and convey stormwater runoff while removing debris and pollution.
- > Could include vegetated, shallow, landscaped depressions designed to capture, treat, and infiltrate stormwater runoff as it moves downstream.



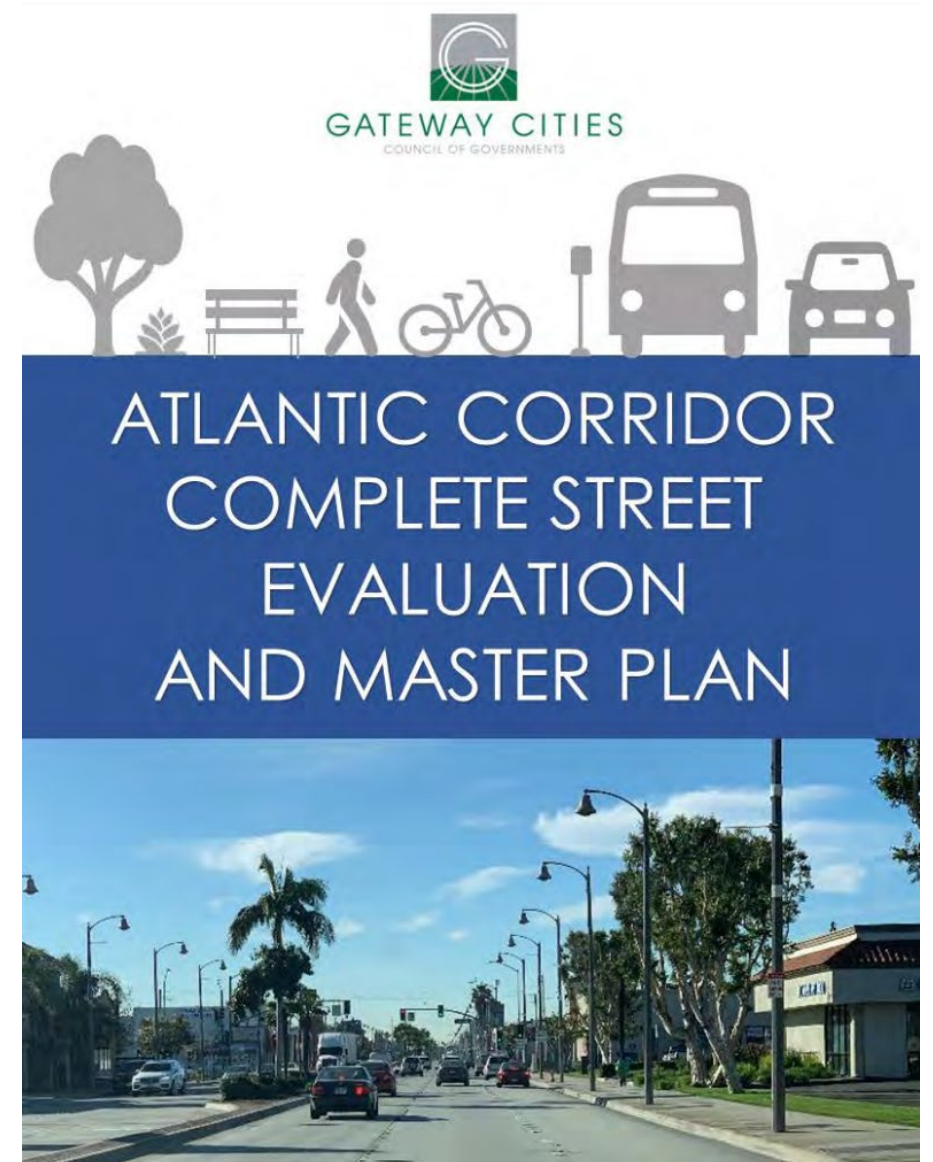
TYPE: ARTERIAL ROADWAYS

SUBTYPE: Complete Streets

CASE STUDY:

Atlantic Complete Street Corridor (LB-ELA_0057)

- > The Gateway Cities COG began the Atlantic Corridor Complete Street efforts in 2019.
- > Key project features:
 - Multimodal bicycle, pedestrian, and transit stop features and amenities.
 - Safety and traffic calming features.
 - Landscaping, hardscaping (aesthetic treatments), public green spaces, trees.
 - Water quality features (bioswales, tree wells).
- > Learn more at:
www.gatewaycog.org/initiatives-and-projects/intelligent-transportation-systems/complete-street-initiative





Type

Arterial Roadways



Subtype

**Signal Coordination /
TSM / ITS**



Metro



TYPE: ARTERIAL
SUBTYPE:
Signal / TSM / ITS

- > **TSM / ITS improvements under consideration include:**
- Traffic / Ped signal upgrades
 - Video camera installation
 - Equipment upgrades
 - Emergency vehicle priority
 - Signage / Signal Synchronization
 - Advanced technologies to manage traffic and to inform traveling public

Learn More – Explore StoryMap



> **Subtype’s List of Projects**

Project ID	Project Name
LB-ELA_0003	Integrated Corridor Management (ICM) Project
LB-ELA_0013	Tweedy Blvd Signal Sync
LB-ELA_0020	Sports Park Transportation Performance Modeling Network
LB-ELA_0051	Upgrade TMS and CMS on Route 1 in LA County
LB-ELA_0069	Traffic / Ped Signal Upgrades
LB-ELA_0071	Mixmaster Traffic signal Improvements (Telegraph/ Eastern/ Atlantic)
LB-ELA_0072	Traffic Signal Coordination Projects
LB-ELA_0074	Traffic Signal Upgrades
LB-ELA_0075	Video Camera installation
LB-ELA_0081	Firestone Blvd. Traffic Signal Upgrades & Safety Enhancements
LB-ELA_0083	Traffic Signal Upgrades
LB-ELA_0084	Video Detection Upgrades
LB-ELA_0087	Traffic Signal Equipment Improvements
LB-ELA_0089	Emergency Vehicle Pre-Emption
LB-ELA_0096	Traffic Signal Improvements
LB-ELA_0097	Traffic Signal Improvements
LB-ELA_0099	Traffic Signal Synchronization Projects
LB-ELA_0100	Traffic Signal Upgrade Projects
LB-ELA_0101	Video Camera installation
LB-ELA_0112	Signal Coordination/ITS Projects
LB-ELA_0116	Traffic Signal Operational Upgrade
LB-ELA_0166	LB-ELA Corridor Vulnerable Road User Connected Vehicle Infrastructure
LB-ELA_0167	I-710 Arterial Signal Performance Measurement
LB-ELA_0215	I-710 Arterial Traffic Signal Control Communication Upgrades 60



TYPE: ARTERIAL ROADWAYS

SUBTYPE: Signal Coordination / TSM / ITS

Transportation Systems Management (TSM)

- > Comprehensive strategy to coordinate many forms of transportation (such as car, bus, carpool, rail transit, bicycle and pedestrian modes) to reduce the impact of additional development on transportation capacity.
- > Focuses on using existing highway and transit systems more efficiently rather than expanding them.
- > Computerized traffic signals, metered freeway ramps, one-way streets, rideshare matching services, and other TSM low-cost and easy to implement.



Integrated Transportation Systems (ITS)

- > A system of technologies/operational advancements that, when combined and managed, improve the capabilities of the overall transportation system.
- > Improves transportation by integrating advanced information and communications-based technologies (ICT) into transportation infrastructure and vehicles.





TYPE: ARTERIAL ROADWAYS

SUBTYPE: Signal Coordination / TSM / ITS

Connected Vehicle Infrastructure

- > Infrastructure supporting vehicles that use any number of different communication technologies to communicate with the driver, other cars on the road (vehicle-to-vehicle), roadside to infrastructure (vehicle-to-infrastructure), and the “Cloud”
- > Part of the Internet of Things (IoT) concept being adopted by cities/municipalities to tackle some of the biggest challenges in the surface transportation industry, including safety, mobility, and environment.



Changeable Message Signs (CMS)

- > Primarily used to give motorists real-time traffic safety and guidance information about planned and unplanned events that significantly impact traffic on the State's highway system.
- > At times, also used for traffic congestion or missing alerts: Broadcast Emergency Response (AMBER).





TYPE: ARTERIAL ROADWAYS

SUBTYPE: Signal Coordination / TSM / ITS

Emergency vehicle pre-emption (EMVE)

- > EMVE is integrated into a local street traffic signal management system designed to move emergencies vehicles faster through signalized roads.
- > As an emergency vehicle approaches an intersection, the traffic light will turn green for the emergency vehicle, and red for the opposing traffic to clear the intersection for the emergency vehicle to pass through when responding to an emergency.



Vulnerable Road User

- > Those unprotected by an outside shield, as they sustain a greater risk of injury in any collision with a vehicle and are therefore highly in need of protection against such collisions.
- > Broad definition can include (but is not limited to): a pedestrian; a roadway worker; a person operating a wheelchair or other personal mobility device; a person operating a bicycle, electric scooter or other nonmotorized means of transportation.





TYPE: ARTERIAL ROADWAYS

SUBTYPE: TSM / ITS

CASE STUDY: Mixmaster Traffic signal Improvements (LB-ELA_0071)

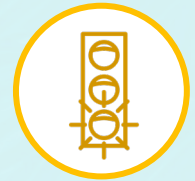
- > Traffic signal upgrade at Telegraph / Eastern / Atlantic.
- > Also consider improvements such as turning lane pavement markings, striping, and enhanced signage so that approaching traffic can get properly aligned well in advance of this intersection.
- > Learn more at <https://pw.lacounty.gov/TNL/ITS/i5/index.shtml>





Type

Arterial Roadways



Subtype

Traffic Calming



TYPE: ARTERIAL ROADWAYS

SUBTYPE: Traffic Calming

Learn More –
Explore StoryMap



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Traffic Calming

- > Local street design techniques that reduce traffic speeds and discourage traffic incursion in residential neighborhoods to improve local street safety and neighborhood quality of life.
- > Techniques include physical traffic barriers (e.g., speed humps), revised street configurations, and traffic speed enforcement.

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0202	Traffic Calming



Raised pedestrian crossing



Roundabouts



Raised median and crossing



Humps for emergency vehicles



Type

Arterial Roadways

Subtype



**General Local /
Regional Roadway**



Metro



TYPE: ARTERIAL ROADWAYS

SUBTYPE: General Local / Regional Roadway

> General Local / Regional Roadway improvements under consideration include:

- Design Pollution Prevention Infiltration Areas (DPPIAs)
- Overcrossing
- Undercrossing

Subtype's list of projects
(see list or scan code below)



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Project ID	Project Name
LB-ELA_0012	Garfield Widening
LB-ELA_0040	Stormwater Best Management Practices
LB-ELA_0041	Long Beach, Temple Av to De Forest Av
LB-ELA_0044	Long Beach, De Forest Av Undercrossing
LB-ELA_0063	Gage Ave. Bridge
LB-ELA_0065	Slauson Ave. Bridge
LB-ELA_0067	Florence Ave. Bridges
LB-ELA_0068	Systematic Safety Analysis Report Program (SSARP)
LB-ELA_0073	Telegraph Road Improvements
LB-ELA_0078	Randolph Street Gap Closure
LB-ELA_0079	Florence Avenue Bridge Rehabilitation
LB-ELA_0080	Florence Av / Paramount BI Intersection Improvement
LB-ELA_0085	Intersection Improvements (Huntington Park)
LB-ELA_0088	Protected Left Turns at Signals
LB-ELA_0098	City Re-Striping Projects
LB-ELA_0104	Rosecrans Ave. Bridge
LB-ELA_0105	Garfield Avenue Improvement Project
LB-ELA_0107	Alondra Blvd. Bridges
LB-ELA_0108	Garfield Ave. Intersection Improvements
LB-ELA_0109	Alondra Blvd. Intersection Improvements
LB-ELA_0110	Rosecrans Intersection Improvements
LB-ELA_0113	Orange Avenue Improvement Project
LB-ELA_0115	California Ave. Improvement Project
LB-ELA_0119	Wright Road Improvement Project
LB-ELA_0120	Safety-Related Road Improvement Projects
LB-ELA_0205	Arterial/General Roadway Improvements Program
LB-ELA_0221	Atlantic BI widening over I-5 at Mixmaster Intersection



TYPE: ARTERIAL ROADWAYS

SUBTYPE: General Local / Regional Roadway

Learn More –
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Design Pollution Prevention Infiltration Areas (DPPIAs)

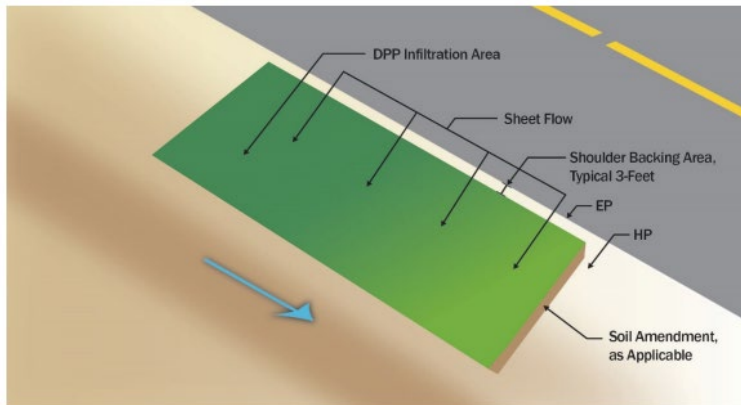
- > Could include stormwater treatment devices that would treat stormwater runoff from sites along the transportation facility and contribute to pollution prevention infiltration.

Overcrossing

- > A structure carrying a road or street over a highway or freeway.

Undercrossing

- > A structure providing passage for a road or street under a highway or freeway.





TYPE: ARTERIAL ROADWAYS

SUBTYPE: General Local / Regional Roadway

CASE STUDY: Florence Avenue Bridge Rehabilitation (LB-ELA_0079)

- > Rehabilitate arterial bridge over the Rio Hondo River Channel.
- > Learn more at <https://lf.downeyca.org/WebLink/DocView.aspx?id=220677&dbid=0&repo=Downey&cr=1>





TYPE COMMUNITY PROGRAMS



Metro



TYPE: COMMUNITY PROGRAMS

Learn More –
Explore StoryMap

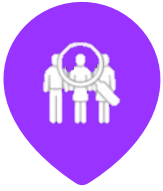


Scan Me!

Community Programs

- Air Quality / Community Health
- Environment
- Housing Stabilization / Land Use
- Job Creation / Work Opportunities





TYPE: COMMUNITY PROGRAMS

SUBTYPES



Air Quality / Community Health

- > Zero Emission Infrastructure for Autos
- > Bus Electrification
- > Community Health Benefit Programs
- > Air Filters for Schools & Facilities
- > Environmental Building Improvements
- > Health Education / Outreach
- > Community Health Screening
- > Vegetation Barriers/Buffer Landscaping



Environment

- > Greenhouse Gas Emissions Reduction, Zero Emissions Infrastructure for Autos
- > Renewable Energy/Solar
- > Urban Greening, Trees, Green Space, Greenbelts, Drought Tolerant Planting Parklets
- > Habitat Restoration / Connectivity
- > Public Art / Aesthetics



Housing Stabilization / Land Use

- > Housing/Rent Stabilization Policies
- > Anti-Displacement Programs
- > Rental Assistance Programs
- > Inclusionary Housing
- > Transit Oriented Communities
- > Homeless Programs
- > Partnership with Comm. Orgs
- > Density Bonus Programs
- > Community Land Trusts
- > Grant Writing Assistance



Job Creation / Work Opportunities

- > Targeted Local Hire
- > Employment Recruitment Initiatives
- > Vocational Educational Programs
- > Economic Stabilization Policies
- > Workforce Education & Development
- > Partnerships with Employers
- > Partnerships with Academic Institutions



TYPE: COMMUNITY PROGRAMS

Health Benefits Program



Air filters for schools or vegetation buffers to reduce the harmful effects of air pollution.

EV Car-Share & Charging



Programs to provide short-term rental of electric vehicles and charging infrastructure for Zero-emission personal vehicles and trucks.

Local Hire and Workforce Development



Programs to increase the share of public dollars that is devoted to creation of local jobs in the communities, and education/training of the local workforce.

Anti-displacement Strategies



Affordable housing policies, low-income rental assistance programs, tenants' rights education and legal representation to prevent unjust evictions.

Community Development Programs



Incentive programs to build affordable and mixed income housing, development of local parks, and other community resources

Zero Emissions Trucks



Program to reduce diesel trucks in favor of zero emissions trucks

Type



Community Programs

Subtype



**Air Quality /
Community Health**



Metro



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Air Quality / Community Health

Learn More –
Explore StoryMap



Scan Me!

Air Quality

- > The degree to which the air in a particular place is pollution-free.

Community Health

- > Non-clinical approaches for improving health, preventing disease, and reducing health disparities through addressing social, behavioral, environmental, economic, and medical determinants of health in a geographically defined population.

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0133	LB-ELA Corridor Community Health Benefit Program
LB-ELA_0191	Zero Emission Infrastructure for Autos
LB-ELA_0192	Bus Electrification Projects
LB-ELA_0218	Air Quality Monitoring Stations



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Air Quality / Community Health

Zero Emission Infrastructure for Autos

- > Fueling station for vehicles that produce no emissions.



Community Health Screening

- > Opportunity for anyone to receive free or inexpensive health evaluations to help determine their risk of developing a medical condition.



Vegetation Barriers/Buffer Landscaping

- > Practical environmentally-friendly solution to minimize soil erosion and off-target field movement of debris and pollutants.





TYPE: COMMUNITY PROGRAMS

SUBTYPE: Air Quality / Community Health

CASE STUDY: Zero Emission Infrastructure for Autos (LB-ELA_0191)

- > Work with local jurisdictions (Cities, County of Los Angeles), public agencies, and private-public partners to develop and site additional charging stations for zero emissions vehicles within the LB-ELA Corridor.
- > Provide grant writing assistance in order to help secure funding. In addition, provide technical support to share best practices such as: identification of incentives and/or policy requirements for new development.
- > Learn more at <https://dot.ca.gov/programs/sustainability/zero-emission-vehicles>





Type

Community Programs



Subtype

Environment



Metro



TYPE: COMMUNITY PROGRAMS
SUBTYPE: Environment



> **Environmental programs include:**

- Energy reduction and greenhouse gas (GHG) emission programs, including solar/renewable energy projects, energy efficient lighting, etc.
- Elements fostering environmental resilience including green space/ greenbelts; parklets; tree planting; community gardens/farms; habitat restoration; stormwater capture; brownfield remediation, green infrastructure.
- Program to fund public art, landscaping, urban design elements, and other features.

> **Subtype’s List of Projects**

Project ID	Project Name
LB-ELA_0134	LB-ELA Corridor Energy & GHG Emissions Reduction Programs
LB-ELA_0187	LB-ELA Corridor “Urban Greening” Initiative
LB-ELA_0190	Public Art / Aesthetics



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Environment

Urban Heat Island

- > An urban or metropolitan area significantly warmer than surrounding rural areas due to human activities.

Brownfield

- > An area with abandoned, idle, or under-used industrial and commercial facilities where expansion, redevelopment, or reuse is complicated by real or perceived environmental contamination.

Greenhouse Gas Emissions

- > Emissions of any gas caused by human activity that have the property of absorbing infrared radiation (net heat energy) emitted from Earth's surface and reradiating it back to Earth's surface, including carbon dioxide, methane, and water vapor.





TYPE: COMMUNITY PROGRAMS

SUBTYPE: Environment

Greenbelts

- > A band of the countryside surrounding a city or urbanized area on which building is generally prohibited.

Urban Greening

- > Public landscaping and urban forestry projects that create mutually beneficial relationships between city dwellers and their environments.

Parklets

- > A small seating area or green space created as a public amenity on or alongside a sidewalk, especially in a former roadside parking space





TYPE: COMMUNITY PROGRAMS

SUBTYPE: Environment

CASE STUDY: Public Arts / Aesthetics

ADD (LB-ELA_0190)

- > Policy initiative that would require that a percentage of transportation construction funds for major public work projects be earmarked for public art, landscaping, urban design elements, and other aesthetic features for the projects.
- > Learn more at <https://art.metro.net/>



Type



Community Programs

Subtype



**Housing Stabilization /
Land Use**



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Housing Stabilization / Land Use

Learn More –
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> Housing Stabilization / Land Use under consideration include:

- Housing/Rent Stabilization
- Anti displacement programs
- Rental assistance programs
- Inclusionary Housing
- Density Bonus Programs
- Land Use
- Community Land Trust/Banks
- Affordable Accessory Dwelling Unit (ADU) Programs
- Transit Oriented Development (TOD)
- Transit Oriented Communities (TOC)

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0009	WSAB Transit-Oriented Development Strategic Implementation Plan
LB-ELA_0135	Housing Stabilization Policies
LB-ELA_0193	Transit Oriented Communities /Land Use
LB-ELA_0194	Homeless Programs



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Environment

Housing/Rent Stabilization

- > A form of control over housing prices so that the given cost of rent for a property only increases by a small amount each year.

Anti-Displacement Programs

- > Advocate for intentional development that reduces displacement as the path forward towards equitable, affordable, and inclusive communities.

Rental Assistance Programs

- > Helps eligible households cover rental and utility costs, to assist with prospective payments for rent and utilities, and provide funding for housing stabilization services and other housing-related expenses.

Inclusionary Housing

- > Local policies that tap the economic gains from rising real estate values to create affordable housing, including reserving a certain percentage of new housing units for low and moderate-income households.





TYPE: COMMUNITY PROGRAMS

SUBTYPE: Environment

Density Bonus Programs

- > Incentive-based tool that permits a developer to increase the maximum allowable development on a site in exchange for either funds or in-kind support for specified public policy goals.

Land Use

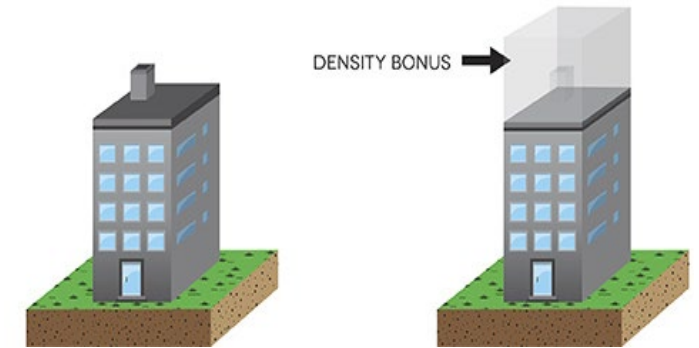
- > The human use of land, including public/private lands with very different uses. Represents the economic/cultural activities practiced at a given place.

Community Land Trusts/Land Banks

- > Nonprofit organizations governed by a board of CLT residents, community residents, and public representatives that provide lasting community assets and shared equity homeownership opportunities for families/communities.

Affordable Accessory Dwelling Unit (ADU) Programs

- > Legal and regulatory term for a secondary house or apartment sharing the building lot of a larger, primary home, built within an existing converted garage or as a newly built structure, or as a conversion of part of the main house.





TYPE: COMMUNITY PROGRAMS

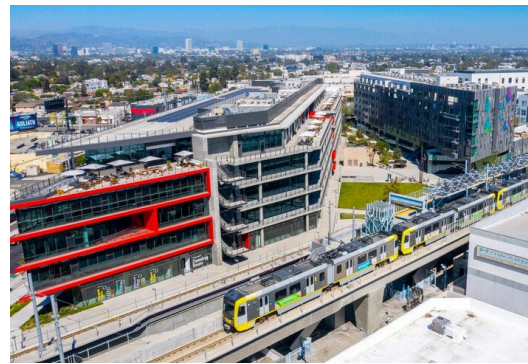
SUBTYPE: Housing Stabilization / Land Use

Transit Oriented Development (TOD)

- > Moderate- to higher-density development, located within easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the auto.
- > TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.

Transit Oriented Communities (TOC)

- > Community development that, by design, enable people to access and use transit more often by centering housing, jobs, services, and shopping around public transit.



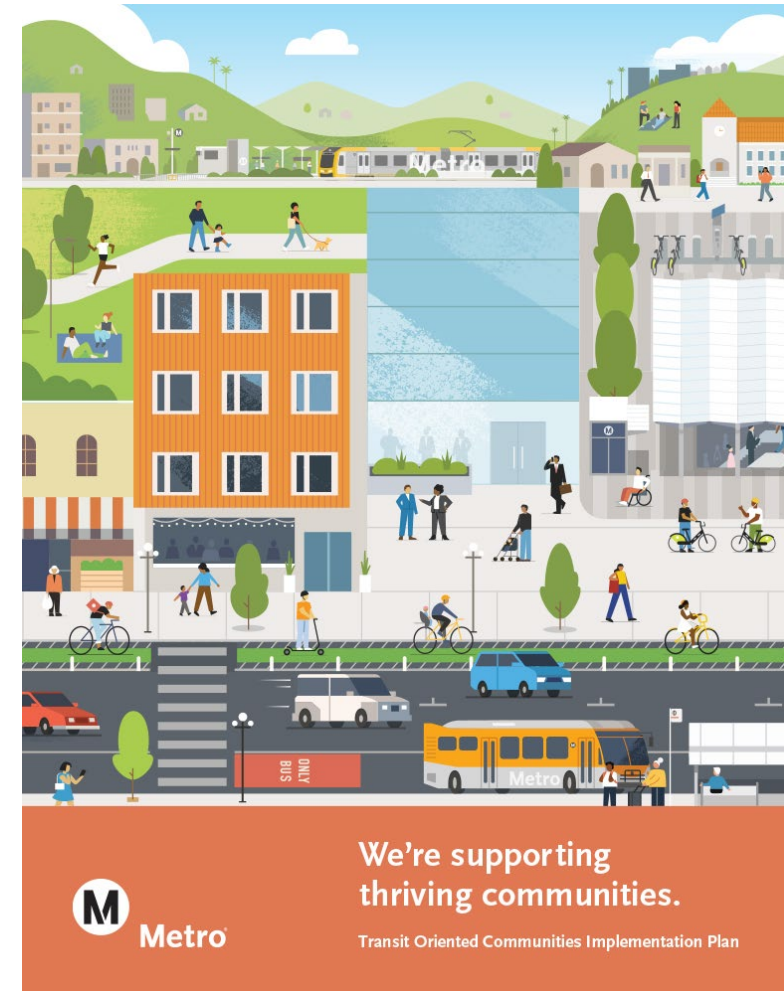


TYPE: COMMUNITY PROGRAMS

SUBTYPE: Housing Stabilization / Land Use

CASE STUDY: Transit Oriented Communities / Land Use (LB-ELA_0193)

- > Work with the local jurisdictions (Cities, County of Los Angeles) to apply best practices and design guidelines to encourage transit-oriented development near rail stations and heavily utilized bus routes within the LB-ELA Corridor. Provide technical resources such as grant writing assistance and technical assistance for community development and land use planning.
- > Assist local jurisdictions in coordination with property owners and developers to ensure safe construction and strengthen connections to transit.
- > Learn more at <https://www.metro.net/about/transit-oriented-communities/>



Type



Community Programs

Subtype



**Job Creation /
Work Opportunities**



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Job Creation / Work Opportunities

Learn More –
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> Job Creation / Work Opportunities under consideration include:

- Community Based Organizations (CBOs)
- Social equity
- Underserved communities

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0186	Economic Stabilization Policies
LB-ELA_0195	Targeted Hire Programs
LB-ELA_0196	Employment/Recruitment Initiatives
LB-ELA_0197	Vocational Educational Programs



TYPE: COMMUNITY PROGRAMS

SUBTYPE: Job Creation / Work Opportunities

Community Based Organizations (CBOs)

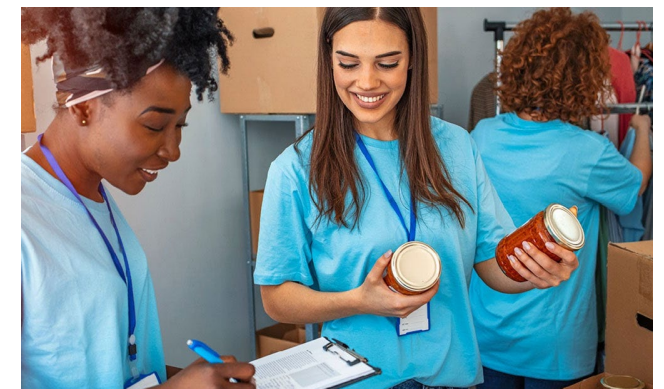
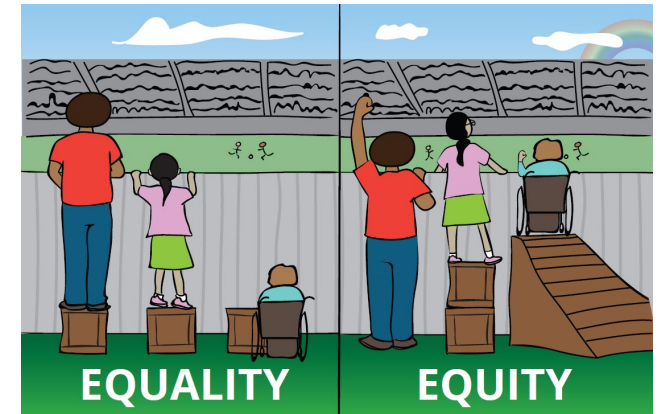
- Public or private nonprofit organizations of demonstrated effectiveness that are representative of a community or significant segments; and provide educational or related services to individuals in the community.

Social Equity

- Fairness and justice for all people in social policy.
- Social equity considers systemic inequalities to ensure that everyone in a community has access to the same opportunities and outcomes.
- Equity of all kinds acknowledges that inequalities exist and works to eliminate them.

Underserved Communities

- Groups with limited or no access to resources or otherwise disenfranchised.





TYPE: COMMUNITY PROGRAMS

SUBTYPE: Job Creation / Work Opportunities

CASE STUDY: Economic Stabilization Opportunities ADD (LB-ELA_0186)

- > Work with Cities, County of Los Angeles, and public agencies to propose and pass community stabilization policies to support disadvantaged communities within the LB-ELA Corridor.
- > Provide grant writing assistance to secure needed funding.
- > Learn more about at https://www.gatewaycog.org/media/userfiles/subsite_9/files/committees/2022/1-710-ad-hoc/Final%20Report%201-710%20AHC%20May%202022.pdf





TYPE GOODS MOVEMENT



TYPE: GOODS MOVEMENT

Learn More –
Explore StoryMap



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Goods Movement

- The distribution of freight (including raw materials, parts, and finished consumer products) by all modes of transportation including marine, air, rail and truck.





TYPE: GOODS MOVEMENT

SUBTYPES



Truck Programs/ITS

- > Zero-Emissions Trucks
- > Zero Emission Infrastructure



Freight Rail, Goods Movement, TDM

- > Freight Rail
- > Goods movement
- > Time Division Multiplexing (TDM)
- > Multimodal options
- > On Dock Rail Expansion
- > Port Railyard



Ports

- > Grade Separation
- > At-grade crossing
- > Container terminal wharf
- > Drayage truck movements
- > Shore-side power
- > Intermodal yards
- > On-dock railyard



TYPE: GOODS MOVEMENT

ZET Truck Programs



Trucks or vehicles that produce no tailpipe emissions of criteria pollutants.

ITS



Integrated system and web-based application to provide real-time information to users on optimal transit routes and transit options.

Freight Rail



Railroads and trains to transport cargo as opposed to human passengers.

Goods Movement



The distribution of freight by all modes of transportation, including marine, air, rail, and truck.

TDM



A communications process that transmits two or more streaming digital signals over a common channel.

Ports



A rail facility in which cargo is transferred from drayage truck to train or vice-versa.



Type

GOODS MOVEMENT



Subtype

Truck Programs/ITS



Metro



TYPE: GOODS MOVEMENT

SUBTYPE: Truck Programs/ITS

Learn More –
Explore StoryMap



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> Truck Programs/ITS improvements under consideration include:

- Zero-Emission Trucks
- Zero Emissions Infrastructure

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0004	Long Beach-East Los Angeles Corridor Clean Truck Program
LB-ELA_0023	Clean Truck Infrastructure
LB-ELA_0184	Empty Container Management
LB-ELA_0185	Freight Advanced Traveler Information Systems



TYPE: GOODS MOVEMENT

SUBTYPE: Truck Programs/ITS

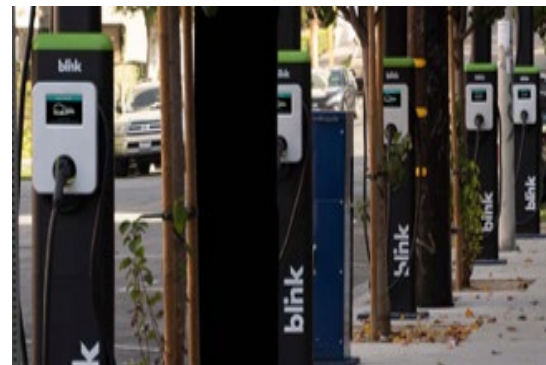
Zero-Emission Trucks

- Trucks or vehicles that produce no tailpipe emissions of criteria pollutants. Generally, ZEVs feature electric powertrains. Technically, ZEVs are still responsible for some greenhouse gas emissions, as the GHG content from the electricity generation must be accounted for. ZEVs include battery electric vehicles (BEV), plug-in electric hybrids (PHEV) when powered by an electric engine, and hydrogen fuel cell vehicles (FCV).



Zero Emissions Infrastructure

- Fueling station for vehicles that produce no emissions.

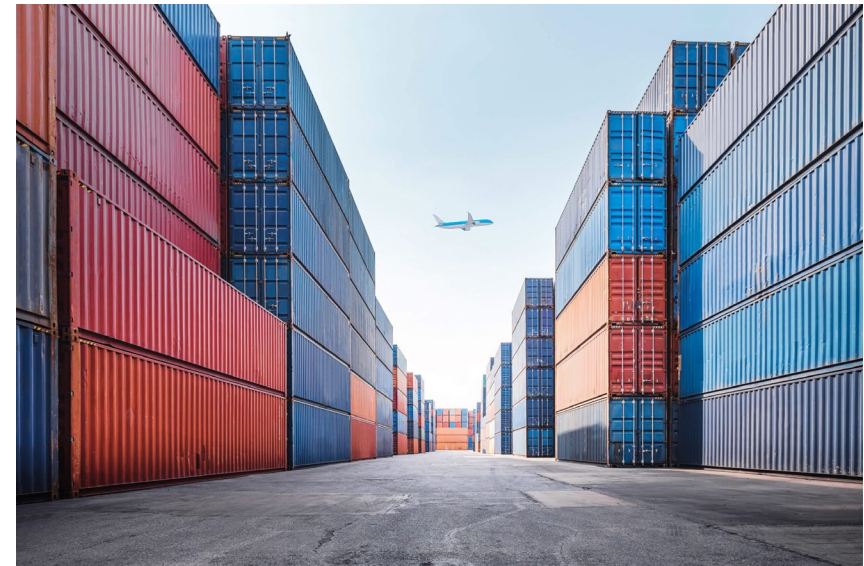




TYPE: GOODS MOVEMENT
SUBTYPE: Truck Program/ITS

**CASE STUDY: Empty Container Management
(LB-ELA_0023)**

- > Provide a mix of incentives/fee penalties to encourage shippers/marine terminals to clear empty containers from docks/near dock facilities at the Ports to reduce congestion and unnecessary truck trip movements.
- > Extend use of off-peak hours for empty returns.
- > Learn more at <https://dtsc.ca.gov/managing-empty-containers/>



Type



Goods Movement

Subtype



**Freight Rail,
Goods Movement,
TDM**



Metro



TYPE: GOODS MOVEMENT

SUBTYPE: Freight Rail, Goods Movement, TDM

Learn More –
Explore StoryMap



Scan Me!

> Improvements under consideration include:

- Freight Rail
- Goods movement
- Time Division Multiplexing (TDM)
- Multimodal options
- On Dock Rail Expansion
- Port Railyard

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0024	Pier 400 On Dock Rail Modernization
LB-ELA_0025	Terminal Island Transfer Facility Modernization
LB-ELA_0026	West Basin Container Terminal Railyard Modernization
LB-ELA_0124	Port of Los Angeles National Multimodal Freight Network Improvement Program: Rail System Improvement Projects
LB-ELA_0151	Goods Movement Freight Rail Study
LB-ELA_0217	Freight Rail Electrification Pilot Project



TYPE: GOODS MOVEMENT

SUBTYPE: Freight Rail, Goods Movement, TDM

Freight Rail

- Railroads and trains to transport cargo as opposed to human passengers.



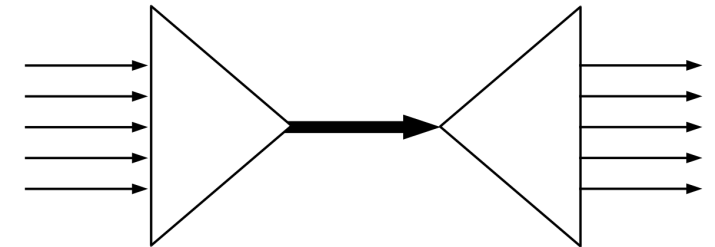
Goods Movement

- The distribution of freight (including raw materials, parts, and finished consumer products) by all modes of transportation, including marine, air, rail, and truck. is an integral aspect of port operations and planning.



Time Division Multiplexing

- a communications process that transmits two or more streaming digital signals over a common channel.





TYPE: GOODS MOVEMENT

SUBTYPE: Freight Rail, Goods Movement, TDM

Multimodal options

- A mixture of several modes of transportation, such as public transportation, autos, trucks, freight rail, and non-motorized systems of transportation. This also includes walking, taking public transportation, driving, rolling.



On Dock Rail Expansion

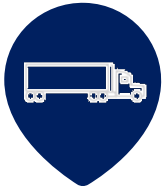
- Located adjacent to a port terminal and does not require the container to exit the terminal's gate to be loaded on a unit train.



Port Railyard

- A rail facility in which cargo is transferred from drayage truck to train or vice-versa.





TYPE: GOODS MOVEMENT

SUBTYPE: Freight Rail, Goods Movement, TDM

CASE STUDY: West Basin Container Terminal Railyard Modernization (LB-ELA_0026)

- > On-dock railyard expansion to accommodate electric operated rail-mounted gantry cranes.
- > Learn more about the construction at <https://www.rtands.com/freight/yards-terminals/port-of-los-angeles-begins-construction-on-west-basin-railyard/>





Type
Goods Movement



Subtype
Ports



Metro



TYPE: GOODS MOVEMENT

SUBTYPE: Ports



> Ports improvements under consideration include:

- Grade Separation
- At-grade crossing
- Container terminal wharf
- Drayage truck movements
- Shore-side power
- Intermodal yards
- On-dock railyard

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0011	SR-47 Navy Way Interchange
LB-ELA_0021	Alameda Corridor Terminus Enhancements
LB-ELA_0022	Terminal Way Grade Separation
LB-ELA_0121	Pier D Street Realignment
LB-ELA_0122	Harbor Scenic Drive Roadway & Infrastructure Improvements
LB-ELA_0123	Pico Avenue Street Improvement
LB-ELA_0131	Port of Los Angeles National Multimodal Freight Network (NMFN) Improvement Program: Maritime Support Facility Access/Terminal Island Rail System Grade Separation
LB-ELA_0132	Pier 300 Wharf Expansion/Vessel Emission Reduction Project



TYPE: GOODS MOVEMENT

SUBTYPE: Ports

Grade Separation

- A crossing of two highways, highway and local road, or a highway and a railroad at different levels. For example, a multimodal bridge over or under the railroad tracks.

At-Grade Crossing

- A crossing or intersection of highways, railroad tracks, other guideways, or pedestrian walks, or combinations of these at the same level or grade.

Container terminal wharf

- An area designated for storing cargo in a container, usually accessible by truck, railroad, and marine transportation.





TYPE: GOODS MOVEMENT

SUBTYPE: Ports

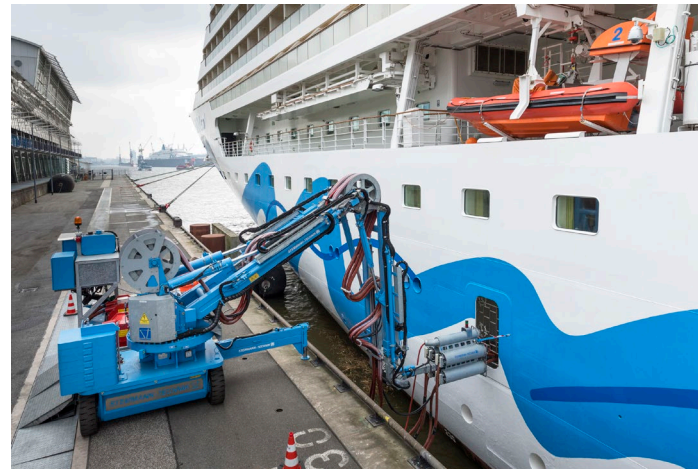
Drayage truck movements

- The transport of freight from an ocean port to a destination.



Shore-side power

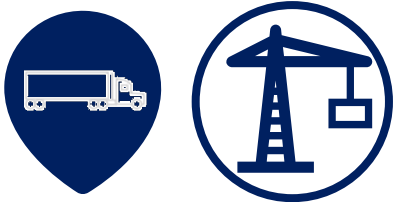
- Providing electrical power from the shore to a vessel at berth, thereby allowing the auxiliary engines to be turned off.



Intermodal yards

- Any transportation facility primarily dedicated to the business of rail and/or intermodal rail operations where cargo is transferred to or from a train and any other form of conveyance.





TYPE: GOODS MOVEMENT

SUBTYPE: Ports

CASE STUDY: Port of Los Angeles National Multimodal Freight Network (NMFN) Improvement Program (LB-ELA_0131)

- > The project consists of constructing a four-lane, rail-roadway grade separation that eliminates a significant truck access impediment to an important container terminal support facility located on Terminal Island, at the centroid of the Ports of Los Angeles-Long Beach (POLA-POLB).
- > Learn more at <https://catc.ca.gov/-/media/ctc-media/documents/programs/Senate-Bill-1/TCEP/fact-sheets/factsheets/12-msf-terminal-island-fs.pdf>

POLA National Multimodal Freight Network Improvement Program

Access Road/Terminal Island Rail System Grade Separation & Maritime Support Facility

- Eliminates 2,500 truck-hours of delay/day
- Improves safety
- Reduces emissions: 42,600 metric tons over first 20 years of use
- Chassis & empty container support for 35% of all US waterborne containers



TYPE TRANSIT



Metro



TYPE: TRANSIT

Transit

- The carrying of people, goods, or materials from one place to another.

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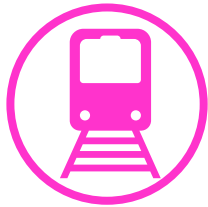
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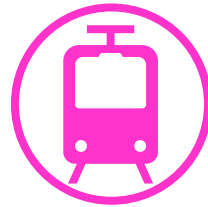
TYPE: TRANSIT

SUBTYPES



High-Capacity Transit

- > Light rail transit (LRT)
- > Bus rapid transit (BRT)



Rail Line / Station Improvements

- > Shared-use
- > Quad safety gates
- > Supervisory Control and Data Acquisition System (SCADA)



Bus Transit

- > On-demand bus (Micro-Transit)
- > Metro Mico Transit Zones
- > Bus priority lane corridors



Transit Amenities

- > Discount programs
- > Ridership experience



TYPE: TRANSIT

LRT & BRT



Light rail transit and bus rail transit for faster and more frequent travel times.

Rail Line Station Improvements



Upgrade and expand the existing rail line stations that service the corridor.

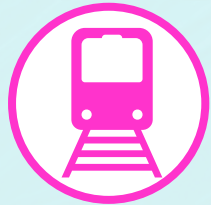
Bus Transit & Amenities



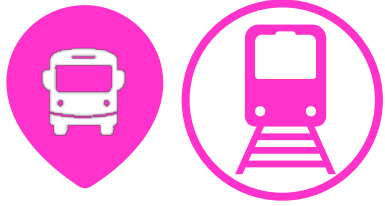
Improve bus line services and programs for all riders.



Type
TRANSIT



Subtype
**High-Capacity
Transit**



TYPE: TRANSIT

SUBTYPE: High-Capacity Transit

Learn More –
Explore StoryMap



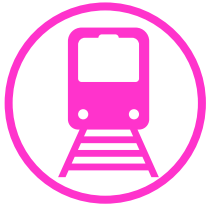
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> **High-capacity transit improvements under consideration include:**

- Light rail transit (LRT)
- Bus rapid transit (BRT)

> **Subtype's List of Projects**

Project ID	Project Name
LB-ELA_0001	West Santa Ana Branch Transit Corridor (LRT)
LB-ELA_0002	C Line (Green) Eastern Extension (Norwalk) (LRT)
LB-ELA_0019	Atlantic Bus Only Lane and Transit Signal Prioritization (Next Gen Improvements)
LB-ELA_0219	Metrolink Line (Union Station – Long Beach)



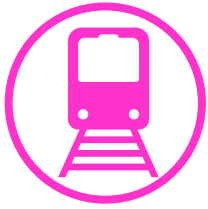
TYPE: TRANSIT

SUBTYPE: High-Capacity Transit

Light rail transit (LRT)

- A mass transit system with vehicles that are electrically self-propelled by overhead catenary wires and usually operate in one or two-car trains (at peak times, Metro trains can have up to three cars).
- LRT train cars have passenger capacity of 135 per car and can carry up to 405 passengers per train, operating every five to six minutes.
- An LRT system has an average speed of 24-35 mph the top speed of 55-65 miles per hour (MPH) and operates above, below or at street level with a typical station spacing being one mile.





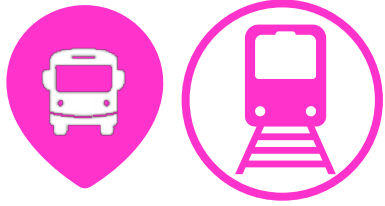
TYPE: TRANSIT

SUBTYPE: High-Capacity Transit

Bus rail transit (BRT)

- A mobility option with many of the same benefits as light rail service, but at significantly less cost and with a faster build time.
- BRT offers reliable, frequent transit service in LA County with bus speed improvements over local bus service, operational enhancements and minimal infrastructure needs.





TYPE: TRANSIT

SUBTYPE: High-Capacity Transit

CASE STUDY: West Santa Ana Branch Transit Corridor (LRT) (LB-ELA_0001)

- > The Project consists of 12 stations and is a 19-mile light rail transit corridor that will connect southeast LA County to downtown Los Angeles, serving the cities and communities of Artesia, Cerritos, Bellflower, Paramount, Downey, South Gate, Cudahy, Bell, Huntington Park, Vernon, unincorporated Florence-Graham community of LA County and downtown Los Angeles.
- > Complete 4.5-mile section between Slauson A Line and Union Station.
- > Learn more at <https://www.metro.net/projects/west-santa-ana/>

West Santa Ana Branch Transit Corridor LPA and Slauson to LA Union Station Segment



The Board-selected LPA - Slauson/A Line (Blue) to Pioneer Station in Artesia - is a 14.8-mile segment featuring nine stations, and five parking facilities. The MSF site will be located in Bellflower on a commercial site of 21-acres.



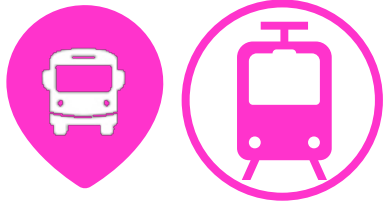
Type
TRANSIT



Subtype
**Rail Line /
Station
Improvements**



Metro



TYPE: TRANSIT

SUBTYPE: Rail Line / Station Improvements

Learn More –
Explore StoryMap



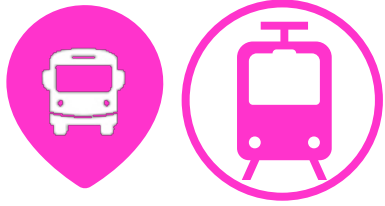
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> Rail Line/Station improvements under consideration include:

- Shared-use
- Quad safety gates
- Supervisory Control and Data Acquisition System (SCADA)

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0160	Line A (Blue Line) Transit Priority/Signal Synchronization
LB-ELA_0171	Commuter Rail Maintenance, Repair, and Safety Projects
LB-ELA_0172	Commerce Metrolink Station Improvements
LB-ELA_0173	Grade Separation(s) of the A Line [Blue Line] at Washington Street
LB-ELA_0174	New Metrolink Station at planned Commerce/Citadel Station
LB-ELA_0175	Install Quad Safety Gates at all A Line [Blue Line] Crossings
LB-ELA_0176	Install Supervisory Control and Data Acquisition System for A Line [Blue Line]
LB-ELA_0177	Add Second Elevator to Firestone and Slauson A Line [Blue Line] Stations



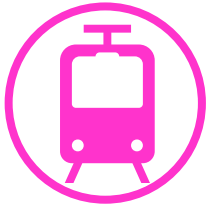
TYPE: TRANSIT

SUBTYPE: Rail Line / Station Improvements

Shared-use

- Facilities that have multiple users. For example, freight rail lines have shared use with Metrolink and Amtrak. Highways have shared use between trucks and cars and transit (sometimes). Roads have shared use between transit, cars, bicycles, pedestrians, delivery trucks, etc.
- A transportation system that responds to the needs of all users of a transportation corridor that is shared by cars, bicycles, buses, trucks, etc.





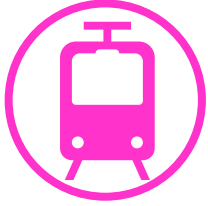
TYPE: TRANSIT

SUBTYPE: Rail Line / Station Improvements

Quad Safety Gates

- A type of [boom barrier](#) gate protecting a [grade crossing](#).
- It has a gate mechanism on both sides of the tracks for both directions of automotive traffic.
- The exit gates blocking the road leading away from the tracks are equipped with a delay and begin their descent to their horizontal position several seconds after the entrance gates do, to avoid trapping highway vehicles on the crossing.



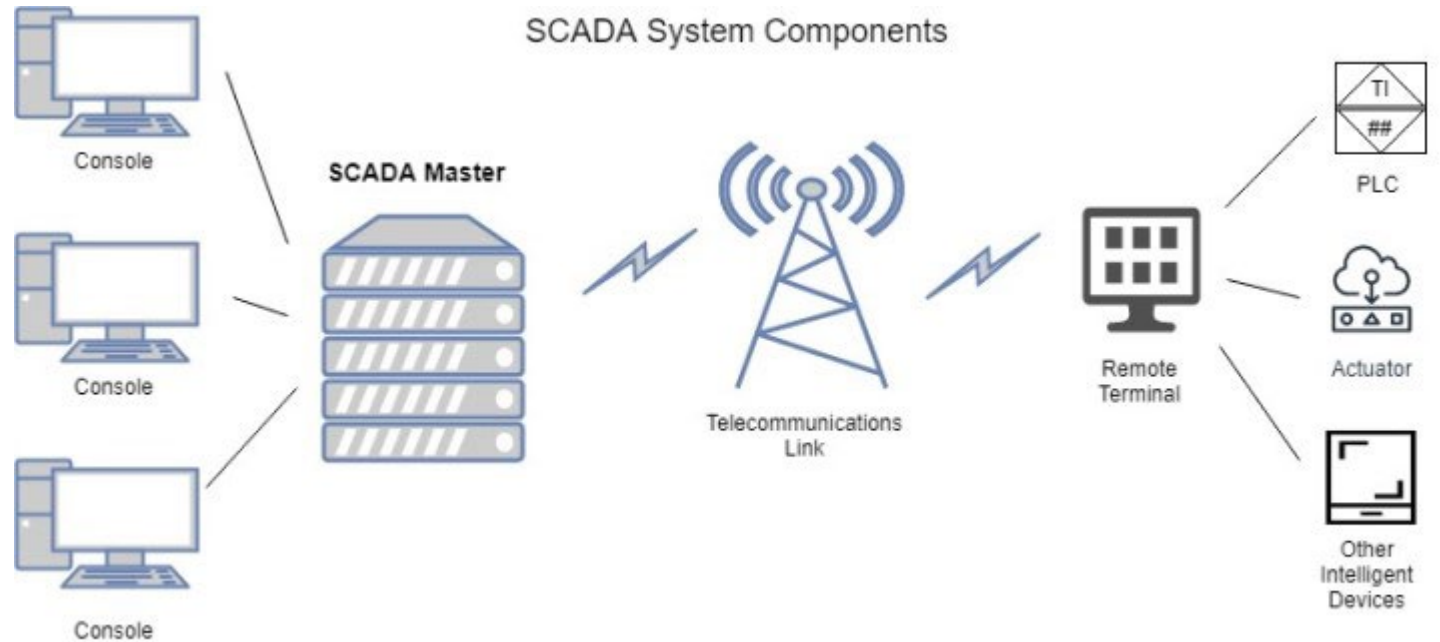


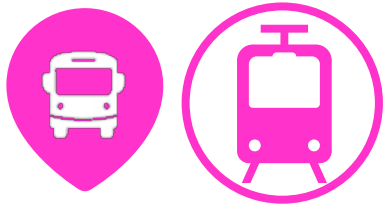
TYPE: TRANSIT

SUBTYPE: Rail Line / Station Improvements

Supervisory Control and Data Acquisition System (SCADA)

- A system of software and hardware elements that allows industrial organizations to:
 1. control industrial processes locally or at remote locations
 2. monitor, gather, and process real-time data
 3. directly interact with devices such as sensors, valves, pumps, motors, and more through human-machine interface (HMI) software, and
 4. record events into a log file.





TYPE: TRANSIT

SUBTYPE: Rail Line / Station Improvements

CASE STUDY: Line A (Blue Line) Transit Priority/Signal Synchronization (LB-ELA_0160)

- > Enhanced signal prioritization/synchronization so that the A Line (Blue Line) has higher priority in areas where the LRT trains operate in mixed flow traffic.
- > Learn more at <https://www.dctcinc.com/projects/la-metro-blue-line-signal-rehabilitation-project>





Type
TRANSIT



Subtype
Bus Transit



TYPE: TRANSIT
SUBTYPE: Bus Transit



> **Bus transit improvements under consideration include:**

- On-demand bus (Micro-Transit)
- Metro Mico Transit Zones
- Bus priority lane corridors

> **Subtype’s List of Projects**

Project ID	Project Name
LB-ELA_0140	Metro Micro Transit Zone(s)
LB-ELA_0141	Metro Bus Priority Lane Corridor along Line 60 (Long Beach Blvd.)
LB-ELA_0142	Metro Bus Priority Lane Corridor along Line 108 (Slauson)
LB-ELA_0143	Metro Bus Priority Lane Corridor along Line 110 (Gage)
LB-ELA_0144	Metro Bus Priority Lane Corridor along Line 111 (Florence)
LB-ELA_0145	Metro Bus Priority Lane Corridor along Line 115 (Firestone)
LB-ELA_0146	Metro Bus Priority Lane Corridor along Line 260 (Atlantic Blvd.)
LB-ELA_0164	Improved Frequency of Metro Buses in the LB-ELA Study Area



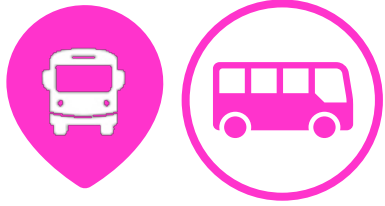
TYPE: TRANSIT

SUBTYPE: Bus Transit

On-Demand Bus (Micro Transit)

- A form of bus demand-responsive transport vehicle for hire. This transit service offers a highly flexible routing and/or highly flexible scheduling of minibus vehicles shared with other passengers.



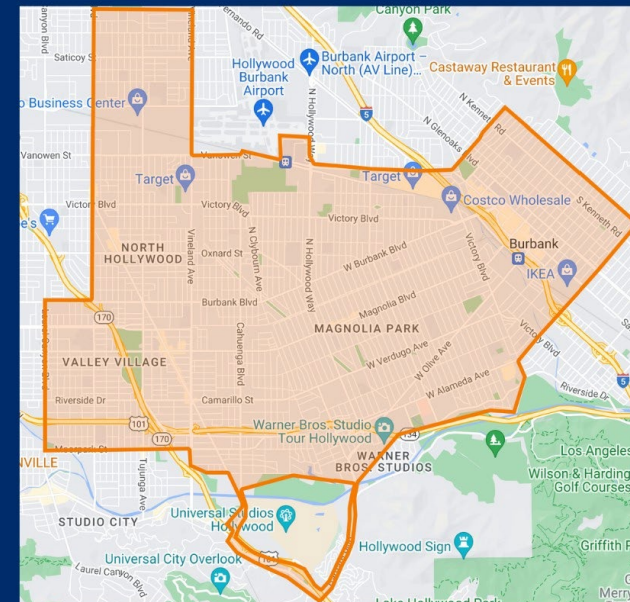


TYPE: TRANSIT

SUBTYPE: Bus Transit

Metro Micro Transit Zone(s)

- Metro Micro service areas designed to replace short, solo trips by offering a flexible, on-demand service operated by Metro employees in vehicles that hold up to 10 passengers.
- Along with other safety measures, capacity is currently limited to five passengers to reduce risk during the COVID-19 pandemic.
- The Mobility on Demand pilot began by offering shared rides to or from transit stations in select zones as a way to expand equitable, affordable and efficient access to Metro's existing transit network.
- For more information about Metro Micro, visit <https://www.metro.net/micro/>.





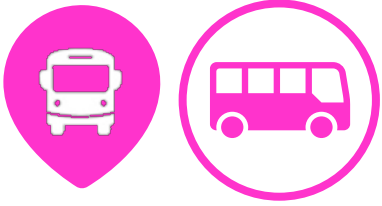
TYPE: TRANSIT

SUBTYPE: Bus Transit

Bus Priority Lane Corridors

- Typically involves the conversion of the rightmost traffic lane into a travel lane primarily dedicated to buses (allows for right turns and bike lane uses) during specific times and days of the week.
- These are typically installed to increase service frequency and reliability, as well as enhancing mobility by moving more people without adding more infrastructure.





TYPE: TRANSIT

SUBTYPE: Bus Transit

CASE STUDY: Metro Bus Priority Lanes Florence Av Bus Priority Lanes Project

- > Improve bus times, speeds, and reliability.
- > Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.
- > Learn more about a bus priority lane project at <https://www.metro.net/projects/florence-av-bus-priority-lanes-project/>

Florence Av Bus Priority Lanes Project



The bus priority lanes would be in service on weekdays in each direction from 7 – 9 am and 4 – 7 pm.



Type
TRANSIT



Subtype
Transit Amenities



TYPE: TRANSIT

SUBTYPE: Transit Amenities

Learn More –
Explore StoryMap



Scan Me!

> Transit amenities improvements under consideration include:

- Discount programs and ridership experience

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0077	Bus Stop Improvements
LB-ELA_0103	Bus Stop Improvements
LB-ELA_0118	Bus Shelter Upgrades
LB-ELA_0136	Enhanced Transit Security
LB-ELA_0147	Transit Traveler Information System Application (ITS)
LB-ELA_0148	Transit Fare Discount Program

Project ID	Project Name
LB-ELA_0148	Transit Fare Discount Program
LB-ELA_0149	Increased Security Features at Metro’s Existing and Planned Light Rail Stations
LB-ELA_0152	Transit Marketing and Education Program
LB-ELA_0161	Transit Ambassador Program
LB-ELA_0168	Compton Transit Management Operations Center Enhancements
LB-ELA_0169	Southeast LA Transit Improvement Program
LB-ELA_0189	Transit System Cleanliness/Maintenance
LB-ELA_0203	Bus Stop Improvements



TYPE: TRANSIT

SUBTYPE: Transit Amenities

Discount Programs

- Low Income
- Students K-12
- Seniors 62+

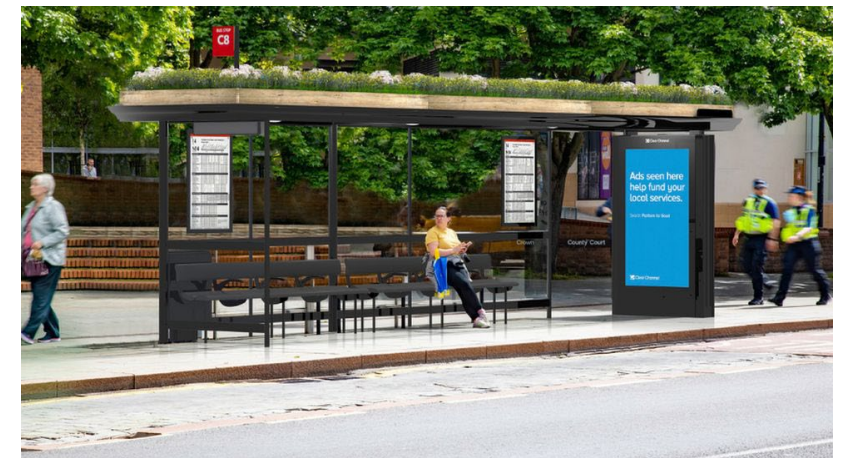
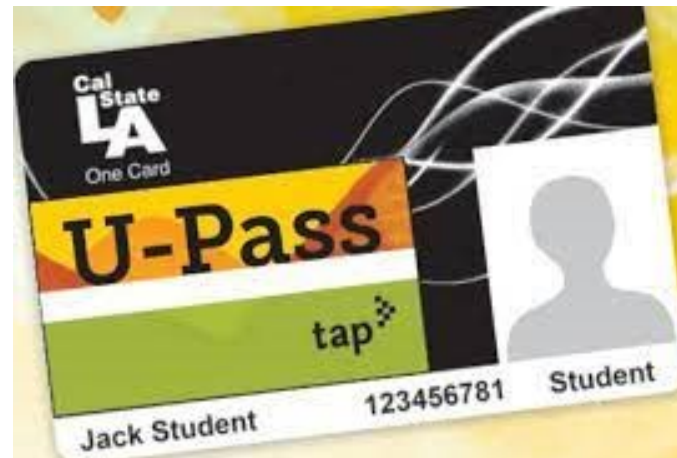
Ridership Experience

- Transit Ambassador Program
- Increase maintenance for bus lines
- Upgrade bus shelters

M

Low-Income Fare is Easy (LIFE)

The Low-Income Fare is Easy (LIFE) program provides transportation assistance to low-income individuals in Los Angeles County. LIFE offers fare subsidies that may be applied toward the purchase of passes on Metro or any LIFE participating transit agencies OR a free regional ride option.





TYPE: TRANSIT

SUBTYPE: Transit Amenities

CASE STUDY: Bus Shelter Upgrades (LB-ELA_0118)

- > Upgrade bus shelters at various locations.
- > Learn more about the the newest bus shelters installed by the City of Paramount at <https://studio-111.com/portfolio/detail/paramount-boulevard/>





TYPE FREEWAY



Metro



TYPE: FREEWAY

Freeway

- An expressway with fully-controlled access.



Learn More –
Explore StoryMap



Scan Me!



TYPE: FREEWAY

SUBTYPES



Freeway Improvements

- > Interchange
- > Auxiliary
- > Operational lanes
- > Traffic controls
- > Truck bypass lanes
- > Freeway lids, caps
- > Bridge decks



Freeway Amenities/ITS

- > ITS
- > Particulate Matter Reduction Pilot Project
- > Soundwalls



Zero Emissions Lanes on I-710

- > Zero Emissions Truck Travel Zones Restrictions
- > Zero Emissions Truck Lanes



Congestion Pricing

- > Closed Circuit Television Camera (CCTV)
- > Mixed-Flow Traffic Lanes



TYPE: FREEWAY

ZE Truck Programs



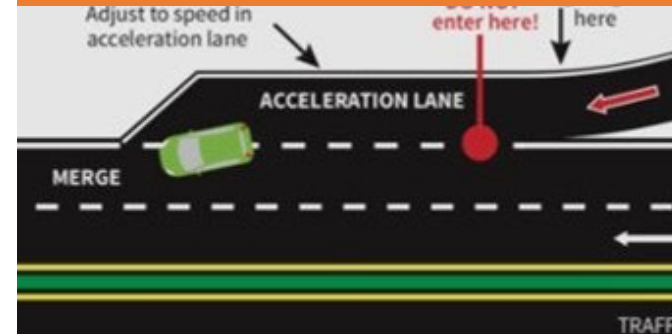
Trucks or vehicles that produce no tailpipe emissions of criteria pollutants.

Freeway Improvements



Improvements including interchanges, soundwalls, new lanes, etc.

ITS



Integrated system and web-based application to provide real-time information to users on optimal transit routes and transit options.

TDM



A communications process that transmits two or more streaming digital signals over a common channel.

Type
Freeway



Subtype
Freeway
Improvements



TYPE: FREEWAY

SUBTYPE: Freeway Improvements

> **Freeway improvements under consideration include:**

- Interchange
- Auxiliary
- Operational lanes
- Traffic controls
- Truck bypass lanes
- Freeway lids, caps
- Bridge decks

Learn More –
Explore StoryMap



Scan Me!



TYPE: FREEWAY

SUBTYPE: Freeway Improvements

Learn More –
Explore StoryMap



Scan Me!

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0028	I-710/Willow Interchange Improvements
LB-ELA_0029	I-710/Del Amo Interchange Improvements
LB-ELA_0030	I-710/Long Beach Blvd. Interchange Improvements
LB-ELA_0031	I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors
LB-ELA_0032	I-710/Imperial Interchange Improvements
LB-ELA_0033	I-710/Firestone Interchange Improvements
LB-ELA_0034	I-710/Florence Interchange Improvements
LB-ELA_0035	I-710 Auxiliary Lanes (Willow to Wardlow)
LB-ELA_0036	I-710 / I-405 Connector Project Improvements
LB-ELA_0037	I-710/I-105 Connector Project Improvements

Project ID	Project Name
LB-ELA_0038	I-710 Auxiliary Lanes (Del Amo Boulevard to Long Beach Boulevard)
LB-ELA_0043	I-710, MP 22.2. In Commerce and Vernon, at Hobart Rail Yard Overhead No. 53-0840
LB-ELA_0045	Route 91, MP R11.7. In Long Beach, at LA River
LB-ELA_0053	I-405, MP 7.2. In Long Beach, at the Pacific Place Maintenance Station
LB-ELA_0091	I-710/Anaheim Interchange Improvement
LB-ELA_0092	I-710/PCH Interchange Improvement
LB-ELA_0093	I-710/Wardlow Interchange Improvement
LB-ELA_0156	Traffic Controls at I-710 Freeway Ramps
LB-ELA_0180	I-710 Truck Bypass Lanes
LB-ELA_0181	Freeway Lids, Caps, and Widened Bridge Decks

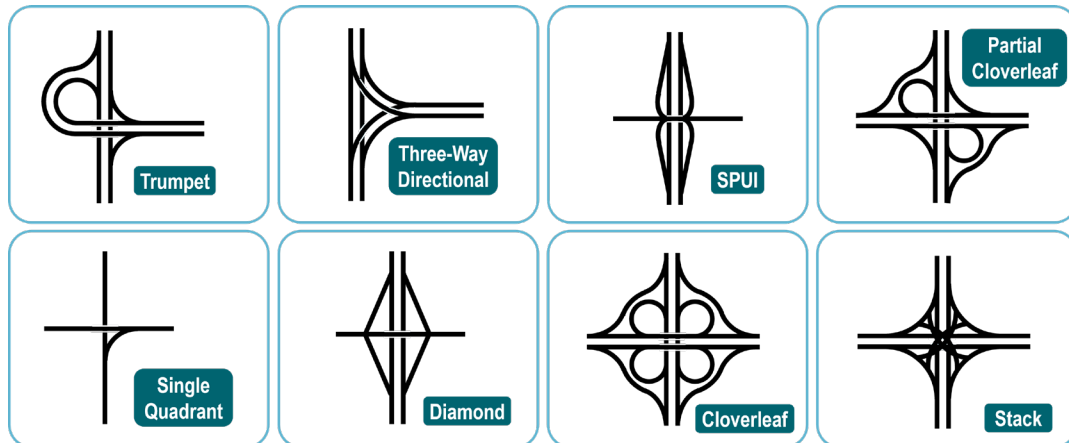


TYPE: FREEWAY

SUBTYPE: Freeway Improvements

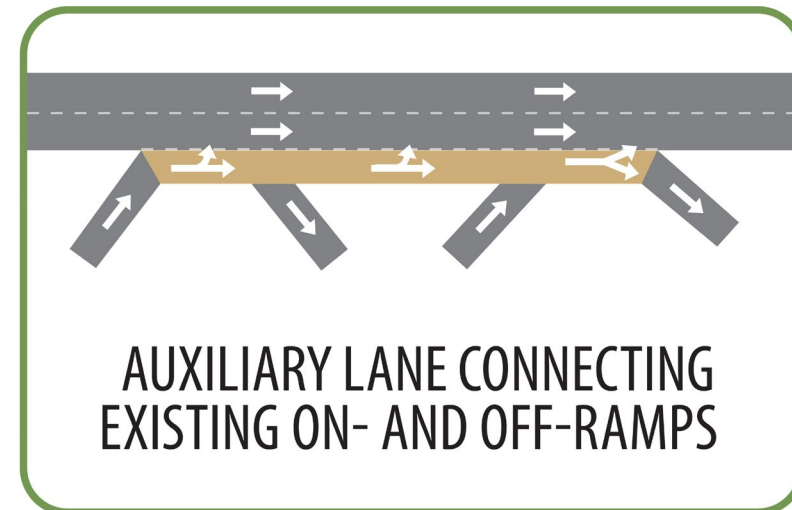
Interchange

- Road junction that uses grade separations to allow for the movement of traffic between two or more roadways or highways



Auxiliary

- Portion of the roadway adjoining the traveled way for speed change, turning, weaving, truck climbing, maneuvering of entering and leaving traffic, and other purposes supplementary to through-traffic movement.





TYPE: FREEWAY

SUBTYPE: Freeway Improvements

Operational Lanes

- A type of lane that is operated with a management scheme, such as lane use restrictions or tolling, to optimize traffic flow.



Traffic Controls

- Directing vehicular and pedestrian traffic around a construction zone, accident, or other road disruption, thus ensuring the safety of emergency response teams, construction workers, and the public.





TYPE: FREEWAY

SUBTYPE: Freeway Improvements

Truck Bypass Lanes

- Roadway that provides physical separation of trucks from passenger vehicles at a freeway interchange to eliminate weaving between passenger cars traveling at higher speeds and trucks traveling at lower speeds.



Freeway Lids, Caps

- Type of deck bridge built on top of a controlled-access highway or another roadway.



Bridge Decks

- The functional area that allows vehicles and pedestrians to cross highways, valleys, and bodies of water.



TYPE: FREEWAY

SUBTYPE: Freeway Improvements

CASE STUDY: Interchange Improvements along I-710

- > Upgrade of I-710 Interchanges to improve operations, safety, and sight distance for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini.
- > Learn more about I-710 interchange improvements at <https://dot.ca.gov/-/media/dot-media/district-7/documents/projects/cmcp/cmcp-sr91-factsheet-feb2021-a11y.pdf>



Type
Freeway

Subtype
Freeway Amenities/ITS





TYPE: FREEWAY

SUBTYPE: Freeway Amenities/ITS



> Freeway amenities improvements under consideration include:

- ITS
- Particulate Matter Reduction Pilot Project
- Soundwalls

> Subtype’s List of Projects

Project ID	Project Name
LB-ELA_0039	I-710 freeway improvements from Shoreline Drive to north of Alondra Boulevard
LB-ELA_0046	I-405 freeway improvements in and near the cities of Long Beach, Signal Hill, Los Angeles, and Carson
LB-ELA_0048	Improvements at Pump Plants
LB-ELA_0049	Improvements at the Garfield Avenue Pump Station
LB-ELA_0050	Freeway improvements along the cities of Carson, Compton, Long Beach, and Bellflower
LB-ELA_0052	Freeway improvements in north segment of I-710 South Corridor
LB-ELA_0054	Construct a new office building, an equipment storage building, and a Zero Emission Vehicle (ZEV) charging station and demolish an existing building.
LB-ELA_0137	Freeway Soundwalls
LB-ELA_0155	Drought Tolerant Landscaping, Hardscaping and Aesthetic Features along I-710
LB-ELA_0157	I-710 Particulate Matter (PM) Reduction Pilot Project
LB-ELA_0188	Freeway Landscaping / Maintenance

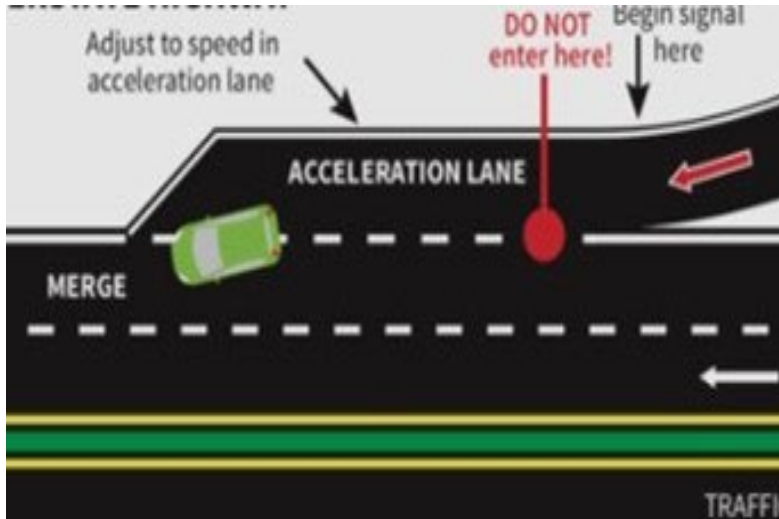


TYPE: FREEWAY

SUBTYPE: Freeway Amenities/ITS

ITS

- Integrated system and web-based application to provide real-time information to users on optimal transit routes and transit options based on time of day and estimated arrival times of buses under real-time travel conditions.



Particulate Matter Reduction Pilot Program

- Implement a pilot project on I-710 to deploy and evaluate measures to reduce exposure of nearby populations to particulate matter, specifically localized sources of entrained/fugitive dust, tire wear, and brake wear associated with traffic on the freeway.



Soundwalls

- A wall installed parallel to highways with the intent of minimizing the traffic noise for nearby residential areas.





TYPE: FREEWAY

SUBTYPE: Freeway Amenities/ITS

CASE STUDY: Particulate Matter (PM) Reduction Pilot Project (LB-ELA_0157)

- > Implement a pilot project on I-710 to deploy and evaluate measures to reduce exposure of nearby populations to particulate matter, specifically localized sources of entrained/fugitive dust, tire wear, and brake wear associated with traffic on the freeway.
- > These measures may include roadside vegetation barriers within available Caltrans' right-of-way, air filters for nearby schools or community facilities, pavement materials, frequent street-sweeping, and deployment of air quality monitoring systems, among others.
- > As part of the work plan, the pilot project would include a study element to assess and document the efficacy of the various measures.
- > Learn more about a similar pilot program at [https://www.sdapcd.org/content/dam/sdapcd/documents/grants/Final Project%20Plan Short-Haul%20ZE%20Truck%20Pilot.pdf](https://www.sdapcd.org/content/dam/sdapcd/documents/grants/Final%20Project%20Plan%20Short-Haul%20ZE%20Truck%20Pilot.pdf)

Non-exhaust Source Emissions Factors



BRAKE WEAR

- Brake materials
- Driving conditions and history
- Brake pad temperatures
- Vehicle load



TIRE/ROAD WEAR

- Tire materials
- Driving behavior
- Road condition



ROAD-DUST RESUSPENSION

- Urban vs rural area
- Season
- Proximity to crustal materials
- Driving speed

RESEARCH NEEDS

- Fraction of non-exhaust vs exhaust emissions
- Effect of regenerative braking and other newer technologies and materials
- Updated total emissions on the statewide level
- Exposure to non-exhaust PM near roadways
- Health effects of this fraction of Particulate Matter

Type
Freeway

Subtype

Zero Emissions Lanes on I-710





TYPE: FREEWAY

SUBTYPE: Zero Emissions Lanes on I-710

Learn More –
Explore StoryMap



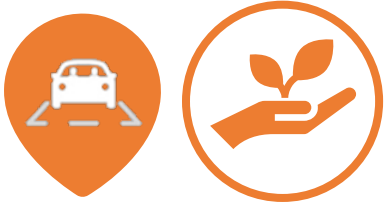
Scan Me!

> Zero emissions improvements under consideration include:

- Zero Emissions Truck Travel Zones Restrictions
- Zero Emissions Truck Lanes

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0039	I-710 Zero-Emission Truck Travel Zone Restriction
LB-ELA_0046	Zero Emissions Truck Lane



TYPE: FREEWAY

SUBTYPE: Zero Emissions Lanes on I-710

Zero Emissions Truck Travel Zones Restrictions

- Establish a zero-emission truck-only travel zone on I-710. Only zero-emissions trucks would be able to travel on I-710, while diesel and near-zero emissions heavy-duty trucks would be excluded. No new lanes would be added to the existing footprint of I-710. No restrictions would be placed on autos.



Zero Emissions Truck Lanes

- Explore options and assess the feasibility of converting the right-hand lane on I-710 to create a Zero Emissions Truck Lane. Only zero-emissions trucks could travel in this lane, while fossil-fuel vehicles would be excluded. No new lanes would be added to the existing footprint of I-710.





TYPE: FREEWAY

SUBTYPE: Zero Emissions Lanes on I-710

CASE STUDY: I-710 Zero-Emission Truck Travel Zone Restriction (LB-ELA_0046)

- > I-405. In and near the cities of Long Beach, Signal Hill, Los Angeles, and Carson, rehabilitate pavement, upgrade signs, rehabilitate bridge, upgrade lighting, improve safety, rehabilitate Transportation Management System (TMS) elements and replace copper cabling with fiber, rehabilitate culverts, and upgrade facilities to Americans with Disabilities Act (ADA) standards.
- > Learn more at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=72966>



Type
Freeway



Subtype
Congestion
Pricing



TYPE: FREEWAY

SUBTYPE: Congestion Pricing

Learn More –
Explore StoryMap



Scan Me!

> Congestion pricing improvements under consideration include:

- Closed Circuit Television Camera (CCTV)
- Mixed-Flow Traffic Lanes

> Subtype's List of Projects

Project ID	Project Name
LB-ELA_0153	Congestion Pricing
LB-ELA_0182	Express Lanes Strategic Initiative



TYPE: FREEWAY

SUBTYPE: Congestion Pricing

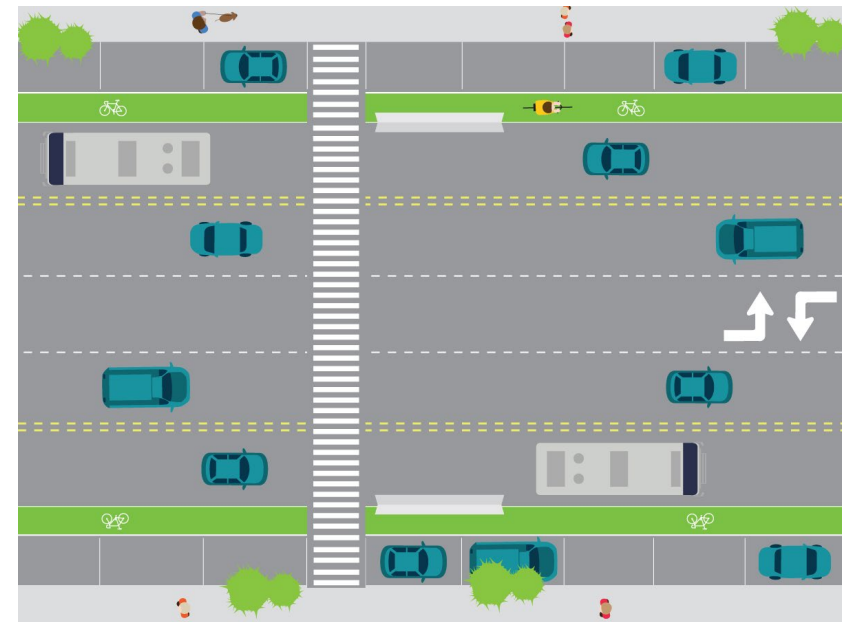
Closed Circuit Television Camera (CCTV)

- Camera system in which signals are not publicly distributed but are monitored, primarily for monitoring traffic and security purposes.



Mixed-Flow Traffic Lanes

- Travel lanes used by transit vehicles, local buses and regular traffic.





TYPE: FREEWAY

SUBTYPE: Congestion Pricing

CASE STUDY: Express Lanes Strategic Initiative (LB-ELA_0182)

- > Advance planning studies to implement express lanes on key freeways in the study area, including I-405, I-105, and SR-91.
- > Learn more at [https://libraryarchives.metro.net/DB Attachments/170111 Strategic Plan with Appendices.pdf](https://libraryarchives.metro.net/DB_Attachments/170111_Strategic_Plan_with_Appendices.pdf)

I-105 ExpressLanes Project

