

> This meeting is transmitted in English, Spanish, Khmer and Tagalog.

> Everyone must choose the preferred language they would like to hear the meeting in

> Click the **Interpretation** icon in your meeting controls to enter an *English, Spanish, Tagalog, Khmer* room

> To hear the interpreted language only, click **Mute Original Audio** (Optional)

> *Esta reunión se transmite en inglés, español, jemer y tagalo.*

> *Todos deben elegir el idioma preferido en el que les gustaría escuchar la reunión.*

> *Haga clic en el icono de Interpretación en los controles de su reunión para ingresar a una sala en de interpretacion en el inglés, el español, el jemer o tagalo.*

> *Para escuchar solo el idioma interpretado, haga clic en “**Mute Original Audio**” o “**Silenciar audio original**” (Opcional)*

# Zoom Protocols/*Protocolos de Zoom*

- > Click **Raise Hand** in your meeting controls or
- > **Press\*9** on the phone line.
- > To lower your hand, click **Raise Hand** in your meeting controls.
- > Comments & questions can also be provided in writing by using the **Chat** function.
- > The **Chat** button is located on the control panel at the bottom of your screen.
- > Tech Support - Phone: 323.609.3345  
Monitoring, translation support

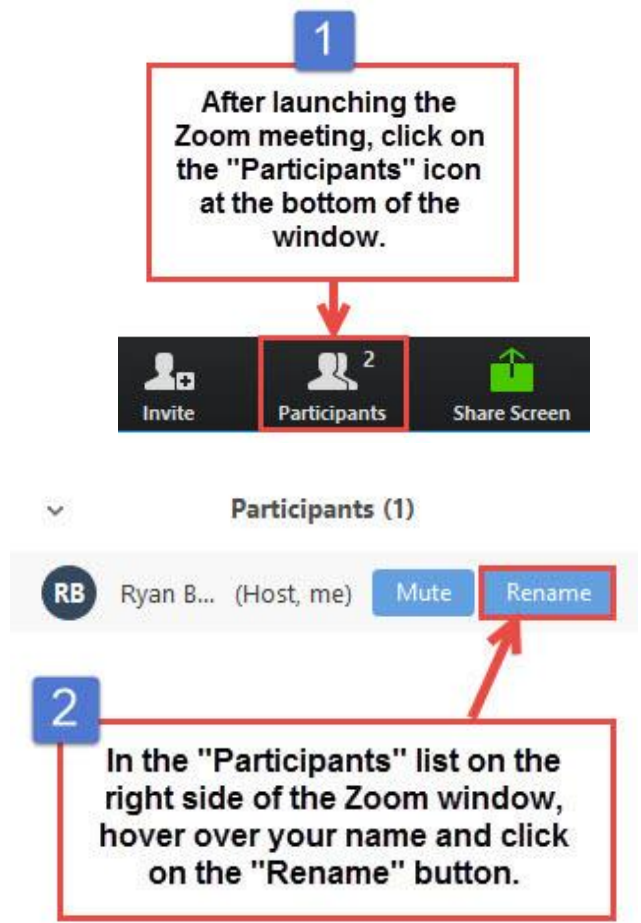
- > *Haga clic en “Raise Hand” para “Levantar la mano” en los controles de la reunión o*
- > *Presiona \*9 en la línea telefónica.*
- > *Para bajar la mano, haga clic en “Raise Hand” para “Levantar la mano” en los controles de la reunión.*
- > *Los comentarios y las preguntas también se pueden proporcionar por escrito mediante la función de Chat.*
- > *El botón Chat se encuentra en el panel de control en la parte inferior de la pantalla.*
- > *Llame a la Asistencia Tecnológica por teléfono al 323.609.3345 para ayuda con la traducción*

# Task Force and CLC Member Identification

## Identificación de miembros del Comité Consultivo y del CLC

**Task Force and CLC Members, please change your Zoom screen name to include: Name and Organization/Jurisdiction**

*Miembros del Comité Consultivo y del Comité de Liderazgo Comunitario, por favor cambie su nombre de pantalla de Zoom para incluir: Nombre y su organización*





We're developing a new vision for the  
Long Beach-East Los Angeles Corridor Mobility Investment Plan

# Welcome!

**Task Force Meeting #18**  
**March 13, 2023**



## **Erika C.B. Morales**

Partner, Morales + Morales Partners

# Metro Project Team



**Michael Cano**

Countywide Planning & Development  
Federal/State Policy & Programming



**KeAndra Cylear Dodds**

Equity and Race



**Ernesto Chaves**

Highway Programs



**Lilian De Loza-Gutierrez**

Community Relations

# Task Force Roster

	AGENCY	LEAD	ALTERNATE
1	Access Services, Inc.	Randy Johnson	Steven Wrenn
2	Alameda Corridor Transportation Authority (ACTA)	Michael Leue	
3	Burlington Northern Santa Fe (BNSF) Railway	Lena Kent	
4	California Air Resources Board (CARB)	Robert Krieger	
5	CALSTART	Niki Okuk	Alyssa Haerle
6	City of Bell Gateway GCOG Ad Hoc Committee	Councilmember Ali Saleh	Councilmember Maria Davila
7	City of Commerce GCOG Ad Hoc Committee	Mayor Oralia Rebollo	Councilmember Kevin Lainez
8	City of Cudahy GCOG Ad Hoc Committee	Mayor Elizabeth Alcantar	Councilmember Marisela Santana
9	City of Long Beach GCOG Ad Hoc Committee	Councilmember Suely Saro	Roberto Uranga
10	City of Los Angeles	Dan Rodman	Chet Edelman
11	Coalition for Clean Air	Chris Chavez	Commissioner Joe Lyou
12	Communities for a Better Environment (CBE)	Jennifer Ganata/Dilia Ortega	Ambar Rivera
13	County of Los Angeles, Supervisorial District 1	Karina Macias	Aydin Pasebani
14	County of Los Angeles, Supervisorial District 2	Lilly O'Brien-Kovari	
15	County of Los Angeles, Supervisorial District 4	Luke Klipp	Viviana Gomez
16	Earthjustice	Fernando Gaytan	Adrian Martinez
17	East Yard Communities for Environmental Justice (EYCEJ)	Taylor Thomas	Laura Cortez
18	Harbor Trucking Association (HTA)	Matt Schrap	Robert Loya
19	LA County Business Federation (BizFed)	Chris Wilson	
20	LA County Department of Public Works	Steve Burger	Waqas Rehman/Edel Vizcarra
21	LA County Economic Development Corporation	Stephen Cheung	
22	LA Unified School District	Fidencio Gallardo	
23	Legal Aid Foundation of LA-Long Beach (LAFLA-LB)	Angela M. Turner	Cassidy Bennett
24	Long Beach Alliance for Children with Asthma (LBACA)	Sylvia Betancourt	Marlin Dawoodjee Vargas
25	Long Beach Transit (LBT)	Lisa Patton	Marisol Barajas

	AGENCY	LEAD	ALTERNATE
26	METRANS Transportation Consortium	Dr. Genevieve Giuliano	
27	Metrolink (Southern California Regional Rail Authority)	Roderick Diaz	David Huang
28	National Resources Defense Council (NRDC)	Natalia Ospina	Najah Louis/Kimberly Leefatt
29	Pacific Merchant Shipping Association (PMSA)	Michele Grubbs	Thomas Jelenic
30	Port of Long Beach (POLB)	Comm. Sharon Weissman	Theresa Dau-Ngo
31	Port of Los Angeles (POLA)	Kerry Cartwright	Tony Gioiello
32	South Coast Air Quality Management District (AQMD)	Dr. Aaron Katzenstein	Dr. Sarah Rees
33	Southeast Los Angeles (SELA) Collaborative	Dr. Wilma Franco	Alberto Campos
34	Southern California Association of Governments (SCAG)	Scott Strelecki	Alison Linder
35	Union Pacific (UP) Railroad	Lupe Valdez	
36	USC Equity Research Institute (ERI)	Edward Muna	Dr. Manuel Pastor
37	International Brotherhood of Teamsters, Local Union 848	Eric Tate	

	AGENCY	EX - OFFICIO
1	California Endowment	Gisele Fong
2	Center for International Trade and Transportation (CITT)	Dr. Tom O'Brien
3	Gateway Cities Council of Governments	Nancy Pfeffer
4	Gateway Cities Council of Governments	Karen Heit
5	Gateway Cities Council of Governments	Norman Emerson
6	Gateway Cities Council of Governments	Marisa Perez
7	LA Customers Brokers & Freight Forwarders Association, Inc.	Dan Meylor
8	LA Customers Brokers & Freight Forwarders Association, Inc.	Dan Monnier
9	Long Beach Residents Empowered (LIBRE)	Leanna Noble
10	U.S. Environmental Protection Agency, Region 9	Morgan Capilla
11	U.S. Environmental Protection Agency, Region 9	Francisco Dóñez
12	Watson Land Company	Mathew Means
13	BREATHE LA County (Breathe LA)	Tigran Agdaian
14	BREATHE LA County (Breathe LA)	Ivan Fonseca

# Ground Rules

1. Participate to the fullest of your ability - An inclusive Investment Plan depends on the participation of every stakeholder.
2. Respect others when they are speaking.
3. Listen actively with an ear to understand others' views.
4. If needed, ask questions or for clarifying information from speakers on the subject matter at hand.
5. Do not be afraid to respectfully challenge one another by asking questions but refrain from personal attacks – focus on ideas.
6. In order to facilitate a constructive conversation, the Project Team will uphold these rules and reserves the right to remove participants who are disruptive or disrespectful.

# Meeting Objectives

- > Receive and discuss presentations on:
  - Goods Movement Issues and Constraints
  - Evaluating and Refining Projects and Programs
  - Modeling and Evaluation Tools
  
- > Confirm new Community Leadership Committee Member for the City of Cudahy
  
- > Receive update on the Corridor Tours for Task Force and CLC Members

# Detailed Agenda

- 5pm Welcome and Opening Remarks**
- i. Introductions, Ground Rules, Objectives, Agenda
- 5:10pm Agenda Item #1: Metro Updates**
- i. Recap of the previous meetings
- 5:20pm Agenda Item #2: CLC Member Confirmation**
- i. Task Force Discussion
  - ii. **Public Comment**
  - iii. Vote
- 5:30pm Agenda Item #3: Goods Movement Issues & Constraints**
- Presentations by:*
- *Tom O'Brien, Executive Director, Center for International Trade and Transportation, Cal State University Long Beach*
  - *Michael Leue, Chief Executive Officer, Alameda Corridor Transportation Authority*
- i. Task Force Discussion
  - ii. **Public Comment**
- 6:15pm Agenda Item #4: Evaluating & Refining Projects & Programs**
- i. Overview
  - ii. Foreshadow Evaluation Framework & Methods
    - Evaluation Criteria & Performance Metrics
    - Prioritization Criteria
  - iii. Task Force Discussion
  - iv. **Public Comment**
- 6:30pm Agenda Item #5: Modeling and Evaluation Tools**
- Presentation by Keir Opie, Principal, Cambridge Systematics*
- i. Task Force Discussion
  - ii. **Public Comment**
- 6:50pm Next Steps and Closing Remarks**
- i. Corridor Tours
- 6:55pm General Public Comment**
- 7:00pm Adjournment**

# Agenda Item #1: Metro Update

- i. Meeting Recaps

**MEETING 17**



REMEMBERING **MARTHA FIERRO**  
CLC MEMBER / CUDAHY

**NEXT PHASE**  
EVALUATING &  
REFINING PROJECTS  
& PROGRAMS

THANK YOU FOR  
CONTRIBUTING

SOME GRANT  
OPPORTUNITIES  
ARE DUE VERY  
SOON

LET'S MOVE  
FASTER  
TO GET FUNDING


HOW WILL WE  
POSITION THE  
RECOMMENDED  
PROJECTS?

TIMELINE &  
STATUS?

WHAT'S OUR  
ROLE?  
BUILD  
FUND  
SUPPORT

HOW WAS  
INITIAL LIST  
DEVELOPED?

HEALTH &  
SAFETY?

INFORMATION  
AVAILABILITY?

POLLUTION  
SOLUTIONS?



HAD SURVEY  
TO FILL IN  
STUDIES &  
INPUT



QUESTIONS  
ON PROCESS

EVALUATION  
CRITERIA

PROJECTS



**LB-ELA CMIP**

MEETING 17

WE WILL BE  
GUIDED BY OUR  
PRINCIPLES

WE WILL BE  
DEVELOPING  
CRITERIA  
TOGETHER!

LOCAL  
PARTNERSHIPS  
PROGRAM

ACTIVE  
TRANSPORTATION  
PROGRAM

DEVELOPING  
SOURCE  
MATRIX

EXAMPLES

CLEAN  
TRANSPORTATION  
PROGRAM



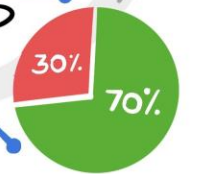
AGENDA  
ITEM #2

FEDERAL &  
STATE GRANT  
OPPORTUNITIES

UNPRECEDENTED  
FUNDS AVAILABLE

CONCERNED

CAN LIVE  
WITH IT



TASKFORCE  
MEMBER  
INPUT

HIGHLIGHTS

TO ADD:

- BIKE SAFETY PROGRAMS
- ELECTRIFY FREIGHT
- HVAC

EQUITY  
WORKING  
GROUP

HIGHLIGHTS

- HIGHWAY LIGHTING
- STORMWATER CAPTURE

ZERO  
EMISSIONS  
INCENTIVES

TREES &  
VEGETATION

SAFETY  
PROVISIONS  
NEAR ON/OFF  
RAMPS

REVISIONS TO  
INITIAL LIST

REMOVED  
DUPLICATE &  
PROJECT OUTSIDE  
FOCUS AREA

WE WILL CONTINUE  
TO REVISIT OUR

VISION  
GOALS

PRINCIPLES  
PROJECT  
LIST

NOT JUST  
WORDS...

SOWN INTO  
THE WORK

WHAT HAPPENS  
NEXT?

SELECT  
PROJECTS  
FOR DRAFT  
INVESTMENT  
PLAN

PROVIDING  
EVALUATIVE  
RESULTS

DEVELOPING  
CRITERIA

CONSENSUS TO  
SUPPORT



JUST A  
CHECK-IN

REVISED INITIAL LIST  
OF MULTIMODAL  
STRATEGIES, PROJECTS  
& PROGRAMS FORWARD  
INTO EVALUATION.

# Task Force Meeting #17 - Recap

## Summary

- > Held virtually via Zoom on Monday, February 13
- > 62 participants (22 Task Force Members/Alternates, 4 CLC members, and 36 Members of the Public)

## Highlights

- > The Project Team determined it would move the Revised Initial List of Multimodal Strategies, Projects & Programs forward based on the following Test for Consensus Results:
  - 70% of the Task Force indicated they could “Live With”, and
  - 30% of the Task Force indicated they “Had Concerns”
- > Metro Staff reviewed immediate and on-the-horizon Federal and State Grant Opportunities.
  - A process is needed for moving forward on near-term grant opportunities that the Task Force can support and that are aligned with the goals, vision, and guiding principles.
  - Seek collaborative projects to increase community engagement and promote non-profits.

# Task Force Questions on the Revised Initial MSPP List

- > What does it mean for a project to be on the Revised Initial List for the Investment Plan?
- > When will projects that do not align with the Vision, Goals, and Guiding Principles be dropped from the Revised Initial List?
- > When will unaligned and out-of-scope projects be removed from consideration from evaluation?
- > How will Metro address EPA's concerns which focused on projects that could continue to cause issues for communities along the corridor from freight and goods movement?

# Community Leadership Committee Meeting #12 - Recap

## Summary

- > Held virtually via Zoom on Thursday, February 23rd
- > 22 participants
- > Meeting focused on Funding and Project Planning

## Highlights

- > Kevin Shin has moved outside of the Signal Hill study area and was approved to continue to participate with the CLC as an At-Large member.
- > CLC members unanimously supported adding Irma Lopez as a representative for Cudahy.
- > CLC members requested more information on the nature of evaluation criteria, the number of projects, and the expected timeline to determine the Final List of Projects.
- > CLC members requested more information on how different projects are evaluated and funded. Particular attention was paid to whether:
  - > Funding included project maintenance after completion
  - > Project evaluation would account for equity, past harms, and community involvement

# Equity Working Group Meeting #10 - Recap

## Summary

- > Held virtually via Zoom on Thursday, March 2
- > 19 participants (11 Task Force Members, 8 CLC members)
- > Meeting focused on using the Equity Planning and Evaluation Tool (EPET)

## Highlights

- > EWG members decided to contribute to EPET content by reviewing detailed outline/draft created by Project Team and attending an in-person workshop to discuss ideas and provide input.
- > Discussion regarding how EPET will be used as a guide during the evaluation phase of the process.
- > EWG members provided feedback on how equity can be better incorporated into broader LB-ELA Corridor Plan discussions.

# What We're Working Toward



# Initial List of Projects & Programs: Anticipating the Next Phase

## Multimodal Strategies, Projects & Programs

Compile complete list of Projects/ Programs

Task Force, CLC, and WG review

Revised list of Initial Projects / Programs

Task Force, CLC, & WG recs

Bundle projects for evaluation

*Public feedback throughout*

## Evaluation Framework

Develop criteria and performance measures

Task Force and CLC feedback

Evaluate bundled projects by these criteria and measures

*Public feedback throughout*

# Agenda Item #2: CLC Member Confirmation

- i. Task Force Discussion
- ii. **Public Comment**

# Community Leadership Committee Member Confirmation

**Task Force to appoint Irma Lopez as the new Community Leadership Committee (CLC) Member for Cudahy.**

# Task Force Discussion

# Public Comment

You will be given **1 minute** to make your question or comment, in order to maximize participation.

01:00

mins:  secs:  type:

 Breaktime for PowerPoint by Flow Simulation Ltd.

Pin controls when stopped

# Task Force Motion to confirm new members to the Community Leadership Committee (CLC)

# VOTE

I support the appointment of Irma Lopez as the new Community Leadership Committee (CLC) Member for Cudahy.

- Yes
- No
- Abstain

# Agenda Item #3:

## Goods Movement Issues & Constraints

*Presentations by:*

- *Tom O'Brien, Executive Director, Center for International Trade and Transportation, Cal State University Long Beach*
- *Michael Leue, Chief Executive Officer, Alameda Corridor Transportation Authority*



**Dr. Tom O'Brien**  
Executive Director  
Center for International Trade and  
Transportation  
Cal State University of Long Beach

# Goods Movement Issues & Constraints

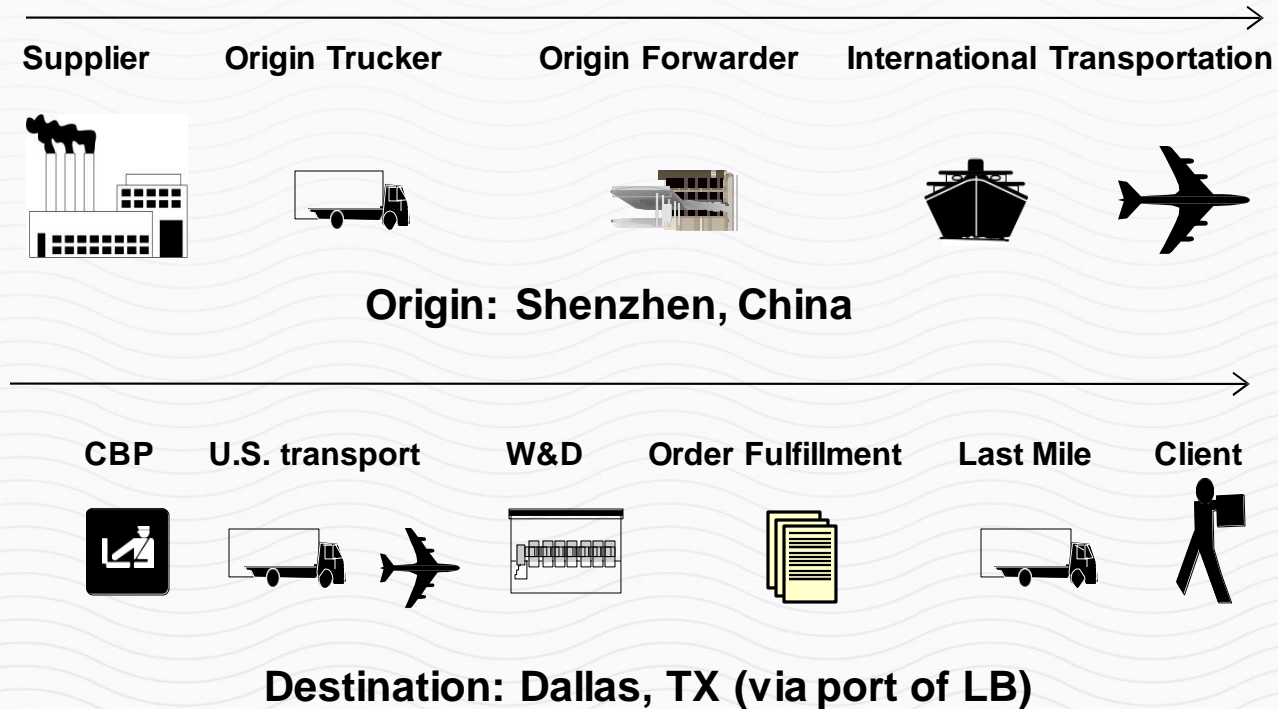
Tom O'Brien

Executive Director

Center for International Trade & Transportation



# A (Very) Basic International Supply Chain:



# The Main Drivers Behind Globalization

- Reductions in tariff and non-tariff barriers to trade
- Preferential duty programs (Generalized System of Preferences & Caribbean Basin Initiative in the U.S., et al)
- Free Trade Agreements
  - The World Trade Organization
- Global use of the ocean container



# The Main Drivers Behind Globalization

- The advent of *Outsourcing*
  - Manufacturing
  - I.T. management
  - Logistics services
- Technology
  - Transportation,  
Telecom,  
hardware/software &  
Internet



## Current State of the Containerized Freight Industry

- Over the last 20 years the size of container ships has increased multi-fold
  - World's largest ships can hold over 22,000 TEU's
  - Driven by economies of scale based on early 21<sup>st</sup> century growth and projections.
  - Panama Canal expanded to accommodate 12k TEU ships
- Larger ships continue to enter the trade creating an imbalance in supply vs. demand

# QUESTIONS ON THE PRESENTATION

**Please raise your hand if you have a question.  
When you are called upon, please unmute yourself,  
and state your name and organization.**

**WHAT DOES A PORT'S "ECO-SYSTEM" LOOK LIKE?**

**WHO'S RUNNING THE SHOW?**

# Players in the Ports & Freight Business

- Ports and terminal operators
- Beneficial Cargo Owners (BCO's)
- Steamship lines
- Transport firms
- Logistics arms of steamship lines
  - OOCL Logistics, Damco (Maersk)
  - Freight Forwarders
  - 3PL's



**Port Stakeholders, Interests, and Different Sources of Influence**

Stakeholder	Interests	Sources of Influence	Indicators of Stakeholder Influence
<b>Cargo movers and transport (inc ports and terminals)</b>	Low generalized (trans)port costs, high quality of infrastructure and logistics chain (safety, security, product quality, regulation and customs procedures)	Trade associations, Industry concentration and consolidation, workforce	Existence of port-specific industry Association  Level of subsidies to sector (infrastructure pricing, projects to reduce congestion, etc.) and financing
<b>Port Labor</b>	High wages, job security.	Port strikes, impact on the image of working seaports.	Wage level Collective port wide labor agreements
<b>Local port related Manufacturing industries</b>	Strong ‘agglomeration economies’ in cluster, space for manufacturing activities, level playing field regulation with regard to noise and environmental standards.	Trade associations, investing outside port cluster	Existence of port specific industry associations, investments in regional economic clusters
<b>Beneficial Cargo Owners (BCOs)</b>	Low generalized transport costs, including factors such as reliability and damage control.	Trade associations, ability to select routing	Business attraction and retention programs, ability to influence routing



**Port Stakeholders, Interests, and Different Sources of Influence Continued**

Stakeholder	Interests	Sources of Influence	Indicators of Stakeholder Influence
<b>NGOs</b>	Regulations preventing excessive negative local externalities, such as noise and pollution and spatial quality.	Influence with elected officials Port advisory groups Permit approval processes	Existence of local environmental groups.  Track record of influence in court cases and public policy  Strength in CA of environmental agencies
<b>Local residents</b>	Job creation in line with local labor market, limited traffic congestion, no reduction of 'quality of life' due to freight related activity	Influence with elected officials Port advisory groups Permit approval processes	Community-responsive measures like CAAP
<b>Local and regional government</b>	Contribution to regional economy, contribution to regional tax income, effective transformation of port/city interface	Regional planning and zoning, public investments in ports and communities	Public land ownership Zoning regulations and codes, permit approval processes
<b>National government</b>	Low generalized (trans)port costs for residents and firms, cost recovery of infrastructure, national commerce and economic competitiveness	National investments in Ports and infrastructure, trade regulations and agreements	National role in infrastructure planning
Source: Page 461 of Chapter 20: Stakeholders, Conflicting Interests and Governance in Port Clusters by Peter W. Delangen from Devolution, Port Governance and Port Performance (Modified)			

Thank You

Tom O'Brien

[tom.obrien@csulb.edu](mailto:tom.obrien@csulb.edu)



## **Michael Leue**

Chief Executive Officer

Alameda Corridor Transportation Authority

# The Alameda Corridor

## Connecting the Ports to the Nation

LB-ELA Corridor Plan Task Force



# Alameda Corridor

## A Project of National Significance

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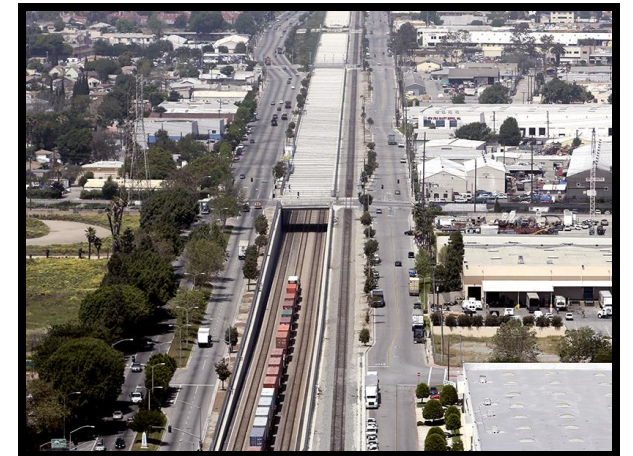
- The Alameda Corridor serves the largest port complex in the United States:
  - Ports of Los Angeles and Long Beach, together known as the San Pedro Bay Ports
  - San Pedro Bay is 7x bigger than average competing US ports
  - Handles 40% of all waterborne containers to the US
  - Supporting 1 million jobs in the five counties surrounding the Ports



## A Project of Local Benefits

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- The Alameda Corridor has resulted in several benefits:
  - Reduce truck traffic on regional highways
  - Reduce community roadway congestion
  - Improve air quality and GHG emissions
  - Improve community aesthetics and connectivity
  - Improve safety and emergency response
  - Improve port efficiency



# Alameda Corridor

## Purpose

- Encourage rail transport to reduce traffic congestion
- Reduce impacts of trains on communities
- Reduce traffic impacts caused by at-grade roadway crossings

## Annual Benefits



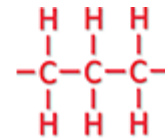
11,000+ Tons of Greenhouse Emissions



30 Tons of Carbon Monoxide



120 Tons of Nitrogen Oxides

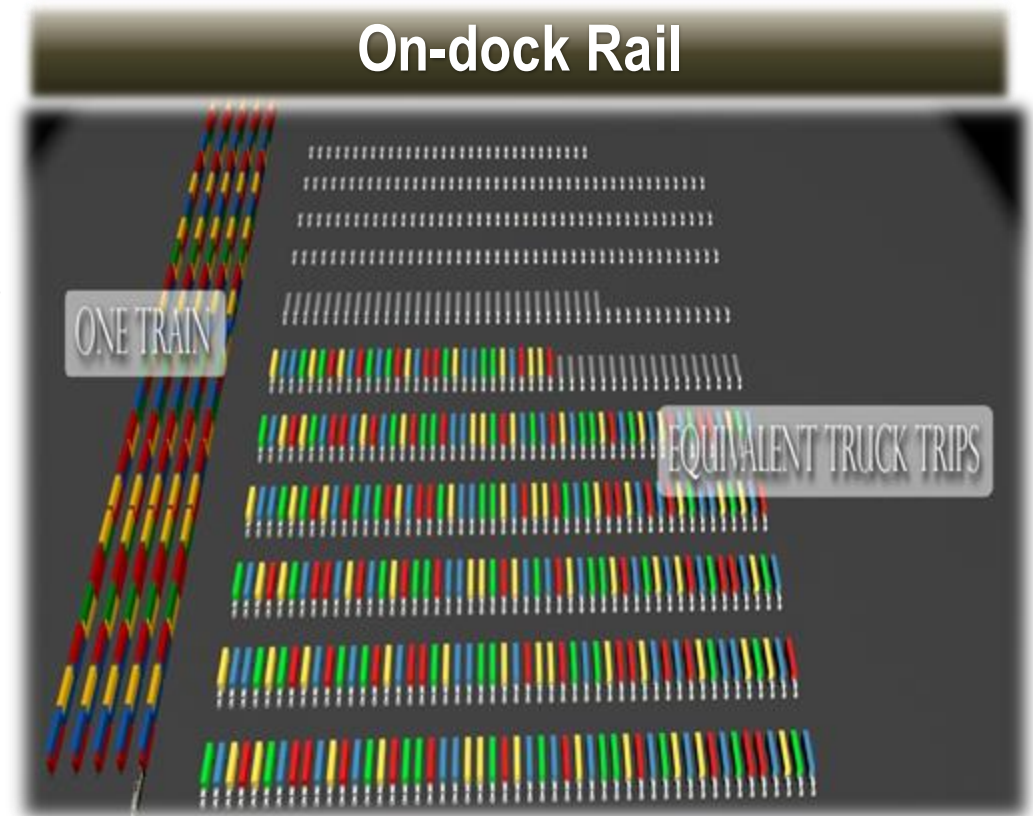


8+ Tons of Volatile Organic Compounds



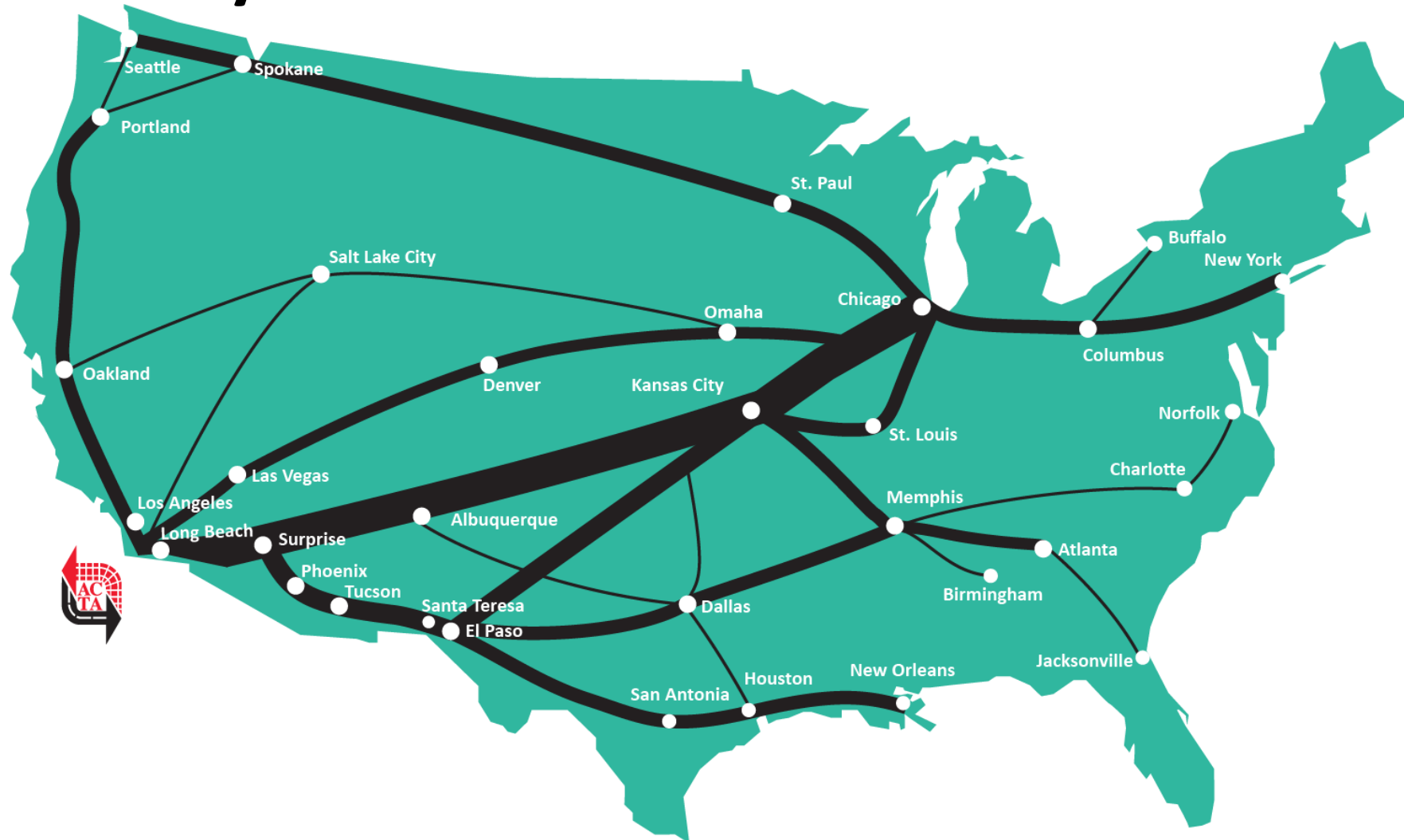
# Rail is Key to Port of the Future

- Trains are 3-5 times more efficient than trucks
- Every train calling the Port removes 750 trucks from local freeways and streets
- Emission Reduction Program
- Ahead of CARB/EPA Compliance





# US Gateways



# Overview of San Pedro Bay Ports



- Ports of Los Angeles and Long Beach
- Major Jobs Generator
- Innovative/Progressive Rail System
- World Leading Clean Air Action Plan



# San Pedro Bay Rail

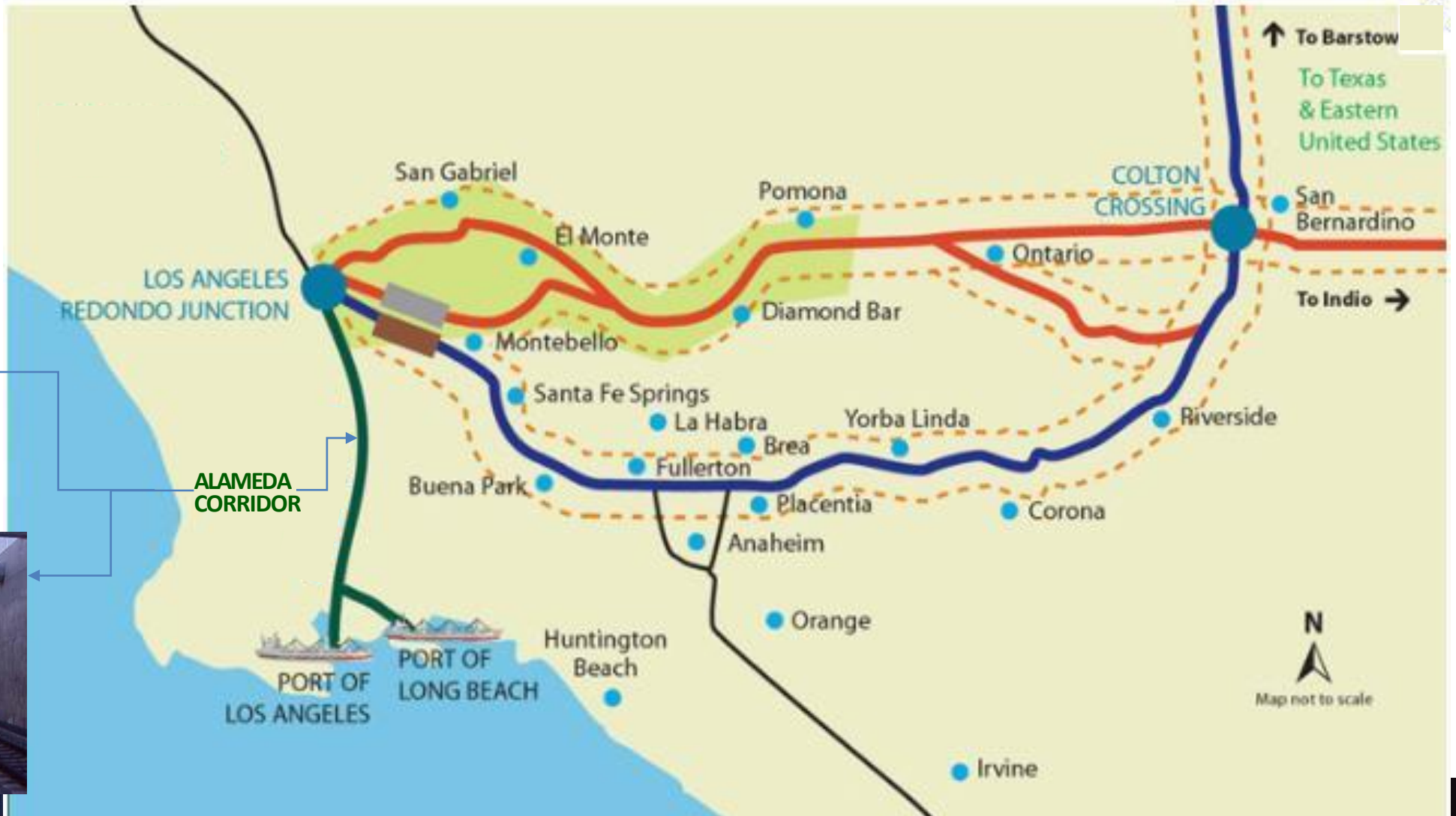
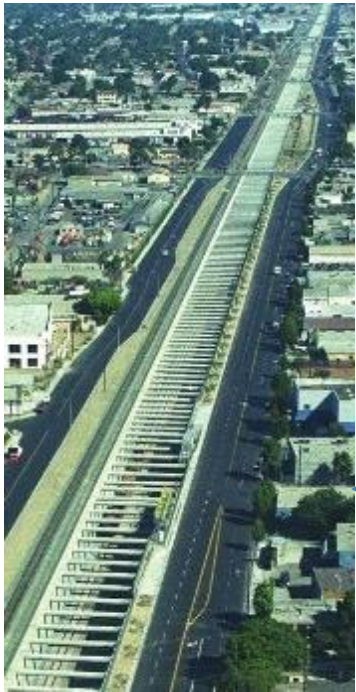
Alameda Corridor Alignment



The Ports of Los Angeles and Long Beach (the San Pedro Bay Port Complex)



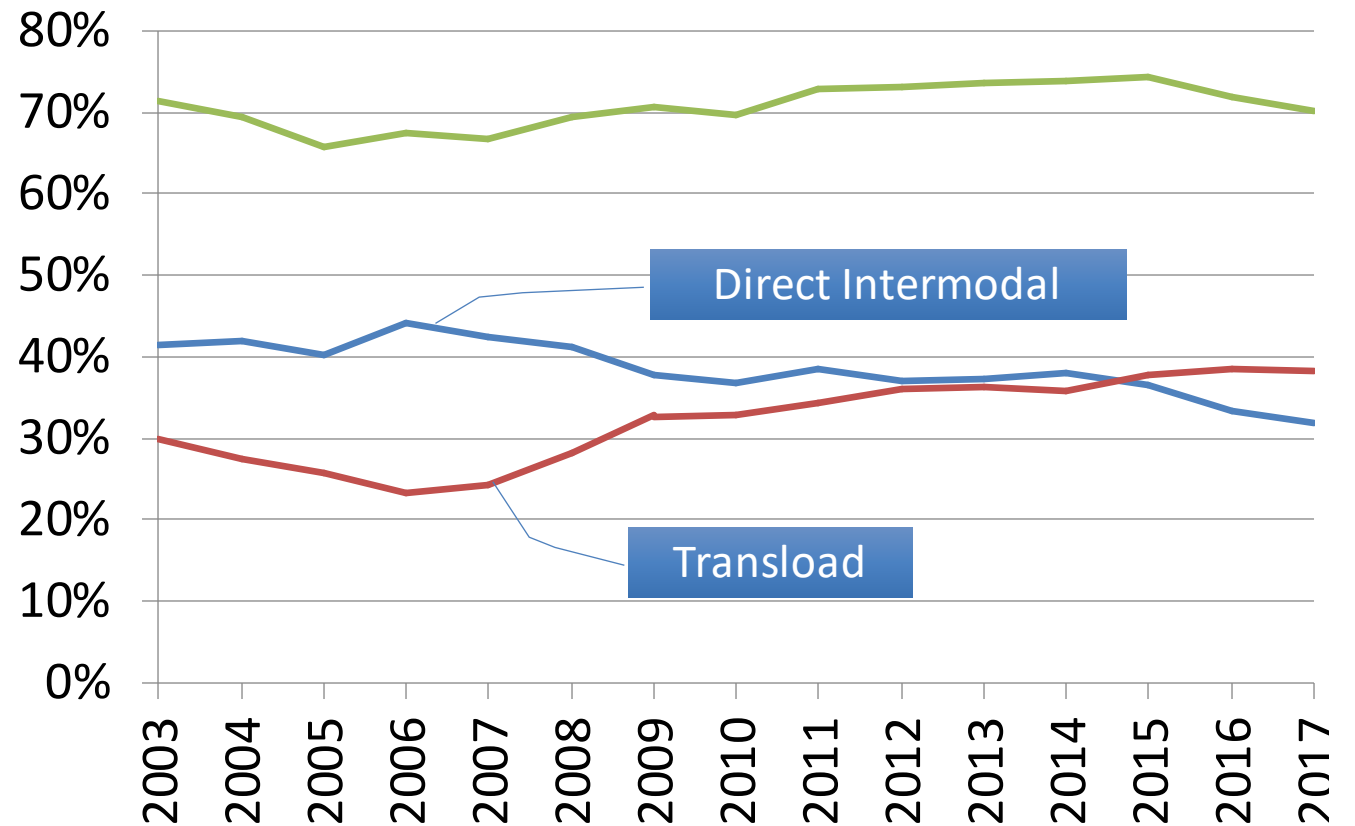
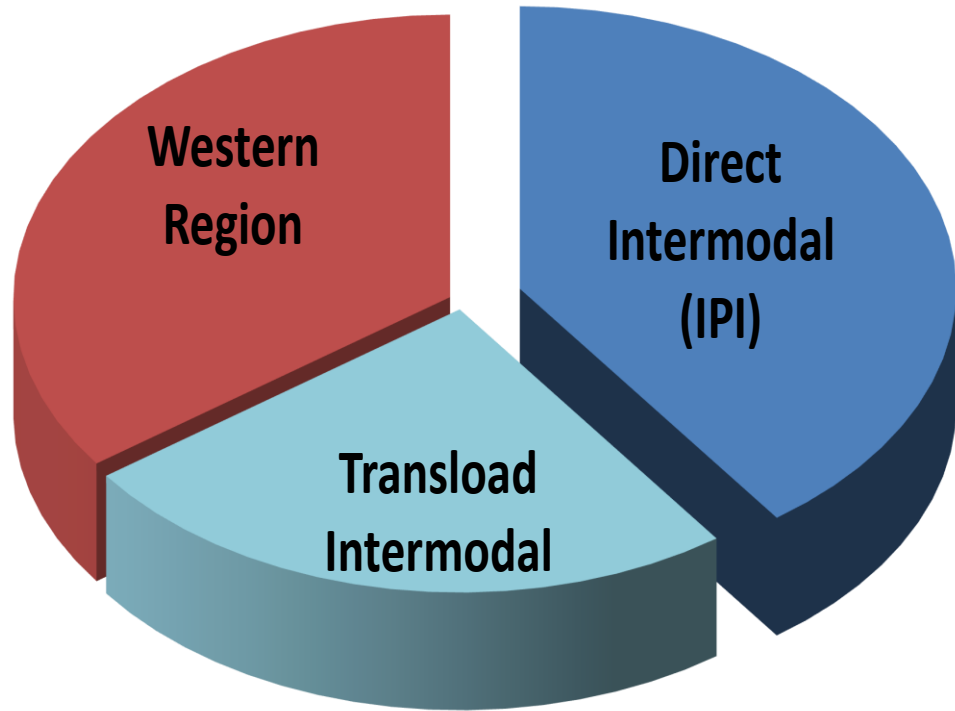
# Regional Rail



# US Rail



# Cargo Mode Split



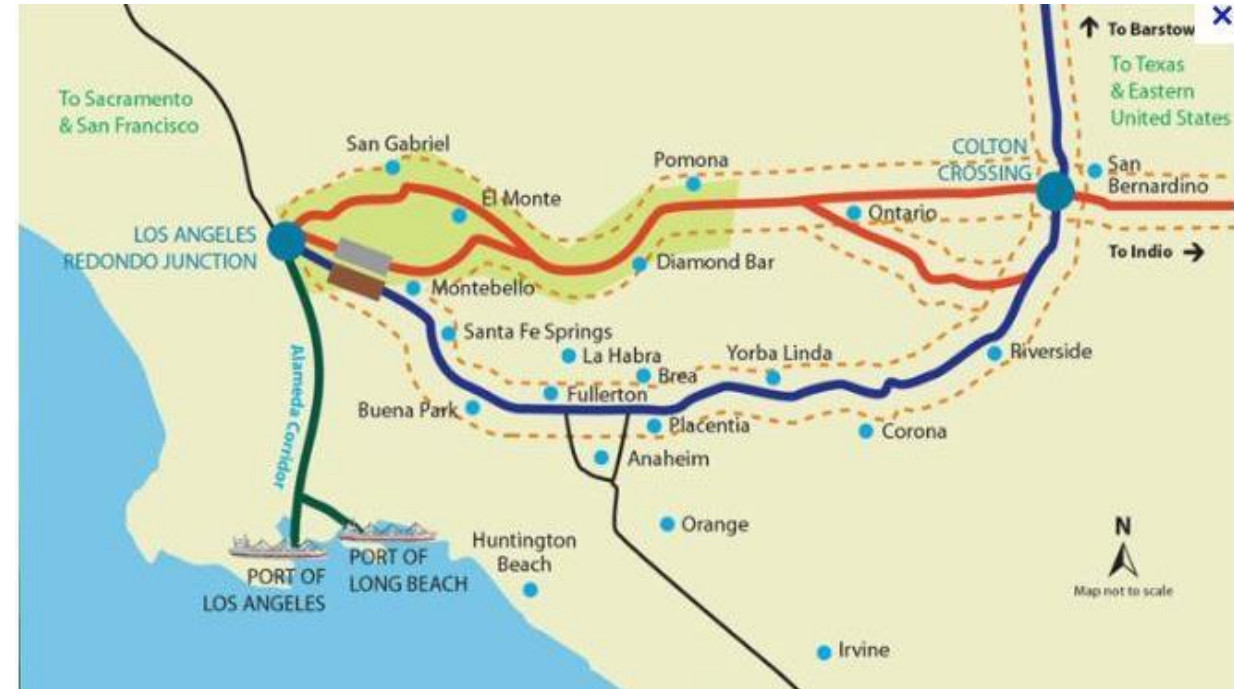
# Opportunities to Increase Cargo by Rail

- Reduce Trucks by Optimizing Origin-Destination
  - Near-dock ICTF is underutilized
  - Sending Transload cargo that is closer to ICTF than to Hobart reduces VMT and congestion
  - Trains loaded at ICTF utilize Alameda Corridor



# Opportunities to Increase Cargo by Rail

- Short-haul Rail to Inland Empire
  - Transload trucking from Port to IE uses most congested roadways
  - SHR from Port to IE would significantly reduce LB-ELA traffic
- Challenges
  - Economics of such a short rail haul would require subsidy
  - Warehouses are widely distributed
  - Requires rail yard in urban setting



# Opportunities to Increase Cargo by Rail

- Short-haul Rail to Central CA
  - Encourage Import IPI transport
  - Enable Export IPI using same boxes
  - Reduce local and statewide truck miles
- Challenges
  - Economics are better than IE, but still cost
  - Potentially requires multiple rail yards
  - Warehouse development can occur adjacent to rail yards



# Opportunities to Increase Cargo by Rail

- Short-haul Rail to Western Region
  - Encourage Import IPI transport
  - Enable Export IPI using same boxes
  - Reduce local and statewide truck miles
- Challenges
  - Economics are better
  - Warehouse development can occur adjacent to rail yards



**Thank you!**

**Michael Leue  
Chief Executive Officer  
Alameda Corridor Transportation Authority  
mleue@acta.org**




# Task Force Discussion

# Public Comment

You will be given **1 minute** to make your question or comment, in order to maximize participation.

01:00

mins:  secs:  type:

 Breaktime for PowerPoint by Flow Simulation Ltd.  Pin controls when stopped

# Agenda Item #4: Evaluating & Refining Projects & Programs

- i. Overview
- ii. Foreshadow Evaluation Framework & Methods
  - Evaluation Criteria & Performance Metrics
  - Prioritization Criteria
- iii. Task Force Discussion

iv. Public Comment

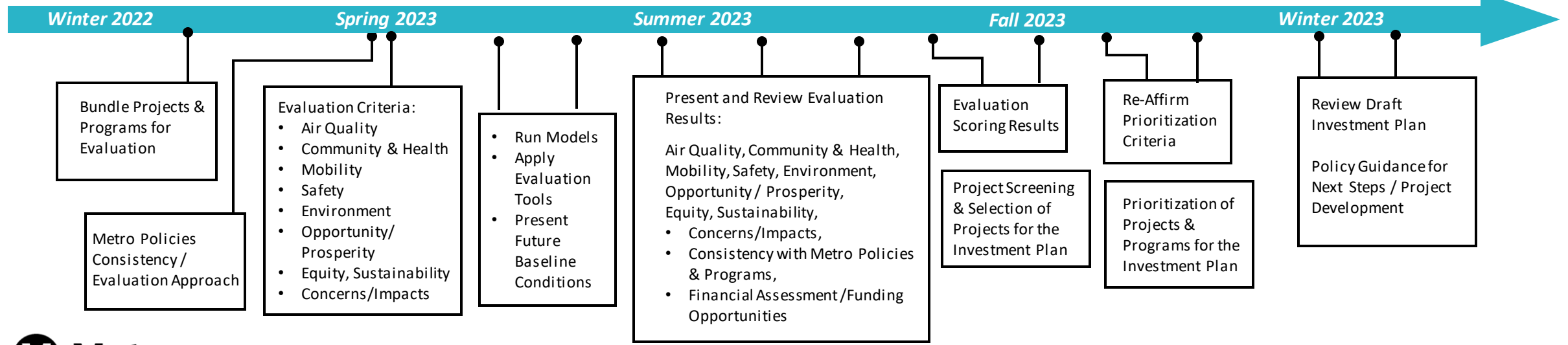
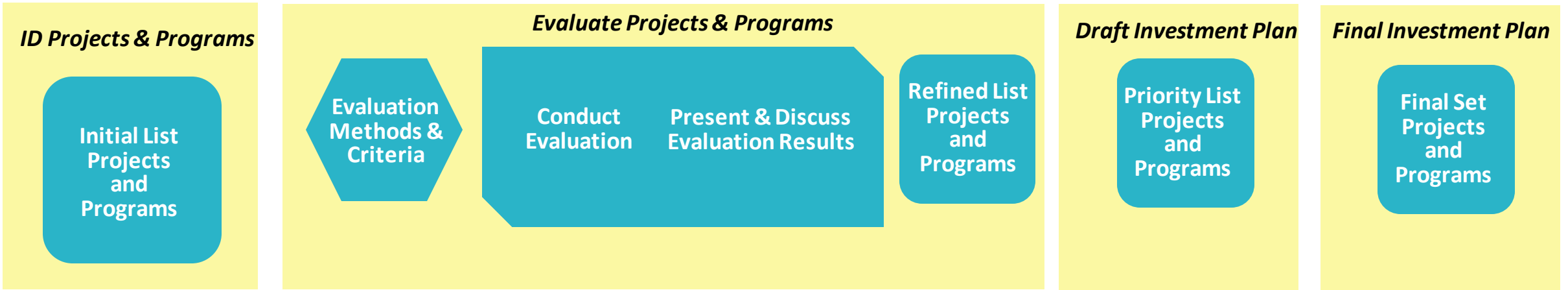
# Key Steps in the Evaluation Process



## Key Steps:

- Determine Evaluation Criteria / Performance Metrics
- Bundle Projects & Programs for Evaluation
- Conduct Evaluation of the Projects & Programs
- Policy Regulation Scan
- Review Evaluative Results with Public, Task Force, and Committees
- Select Projects & Programs to include in the Draft Investment Plan
- Prioritize Projects & Programs for the Draft Investment Plan

# Phase IV: Evaluation Process




# Task Force Discussion

# Public Comment

You will be given **1 minute** to make your question or comment, in order to maximize participation.

01:00

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 Breaktime for PowerPoint by Flow Simulation Ltd.  Pin controls when stopped

# Agenda Item #5: Modeling and Evaluation Tools

Presentation by Keir Opie, Principal, Cambridge Systematics

i. Public Comment



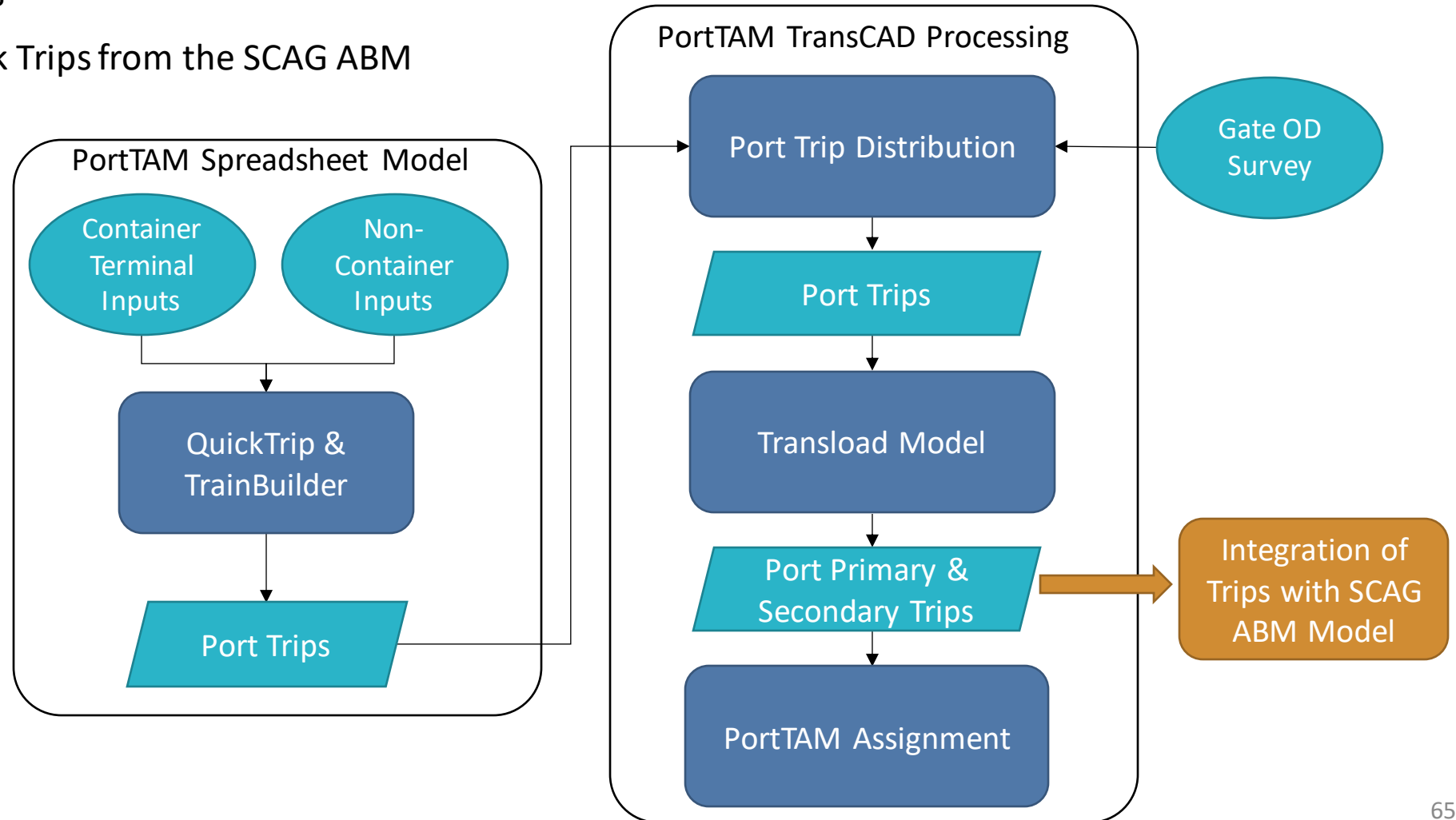
**Keir Opie**  
Principal  
Cambridge Systematics

# LB-ELA Modeling and Evaluation Tools & Methods

- > PortTAM Model
- > Travel Demand Forecasting Model (TDM)
- > Air-Quality Modeling
- > Geographic Information Systems (GIS) analysis
- > Qualitative Assessments

# Port Transportation Analysis Model (PortTAM)

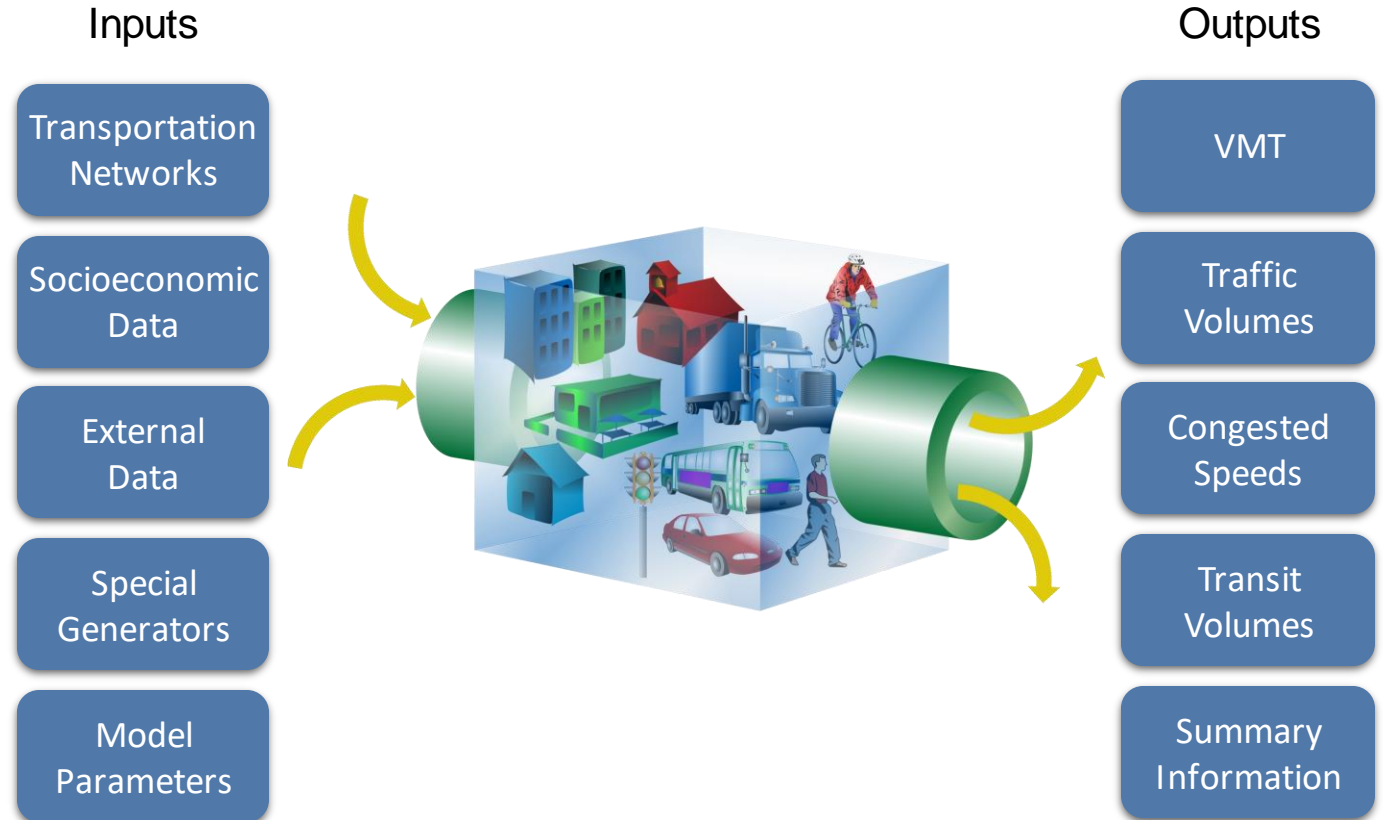
- > Uses Port Cargo Forecasts, Port Facility activities, and related facilities to estimate port-related cargo movements by both Rail and Truck trips
- > Replaces Port-related Truck Trips from the SCAG ABM
- > Truck Types:
  - Containers
  - Non-Container
  - Chassis
  - Bobtail
  - Empty Containers



# Travel Demand Forecasting Model (TDM)

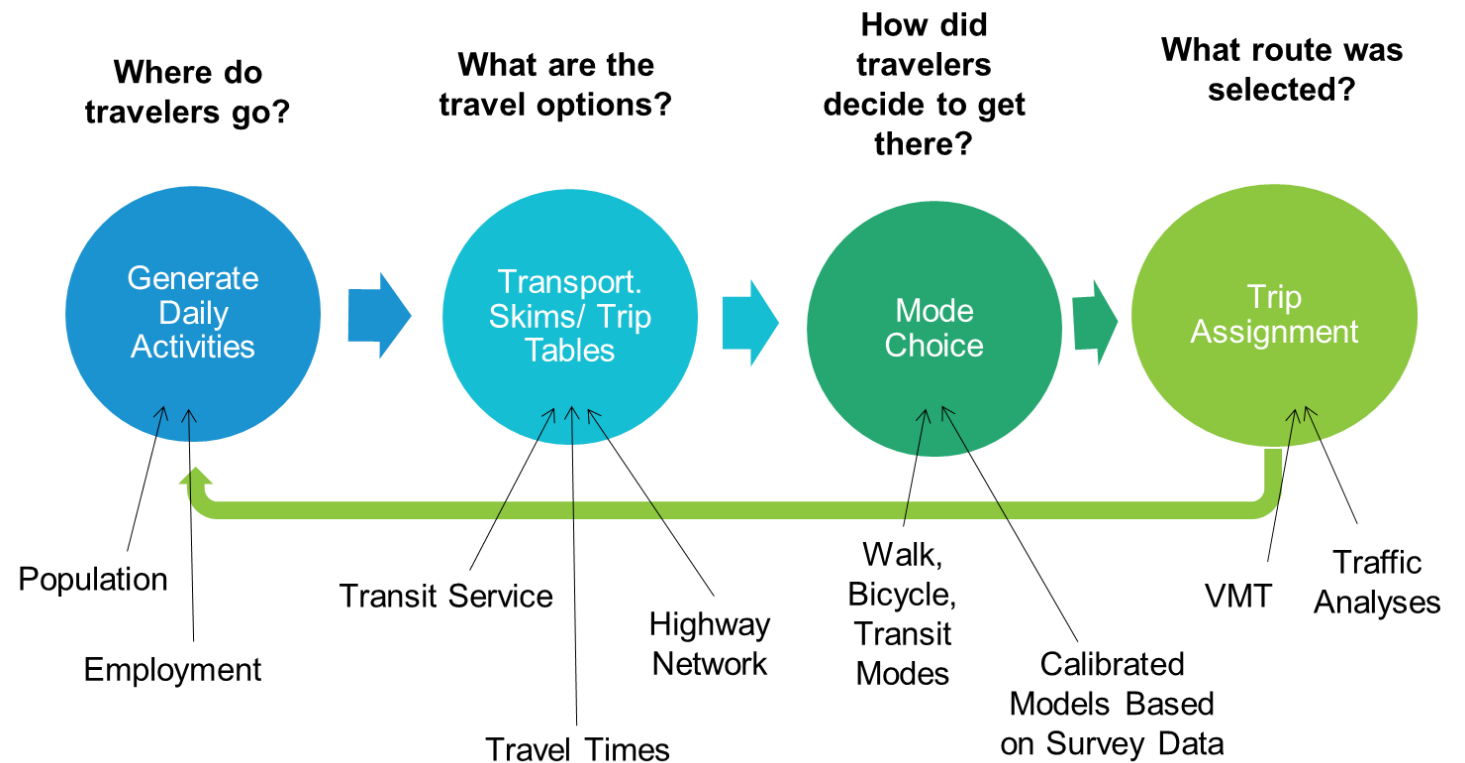
## > What a Model is ... and is Not

- A model is...
  - An *analytical tool* to provide *important forecasting information to planners*
  - A means to quantitatively forecast the *effects of transportation planning, policy, or investment decisions – or external factors – on transportation demand and system performance*
- A model is not...
  - A crystal ball – it does not predict the future
  - A way to get “the answer” on a planning decision



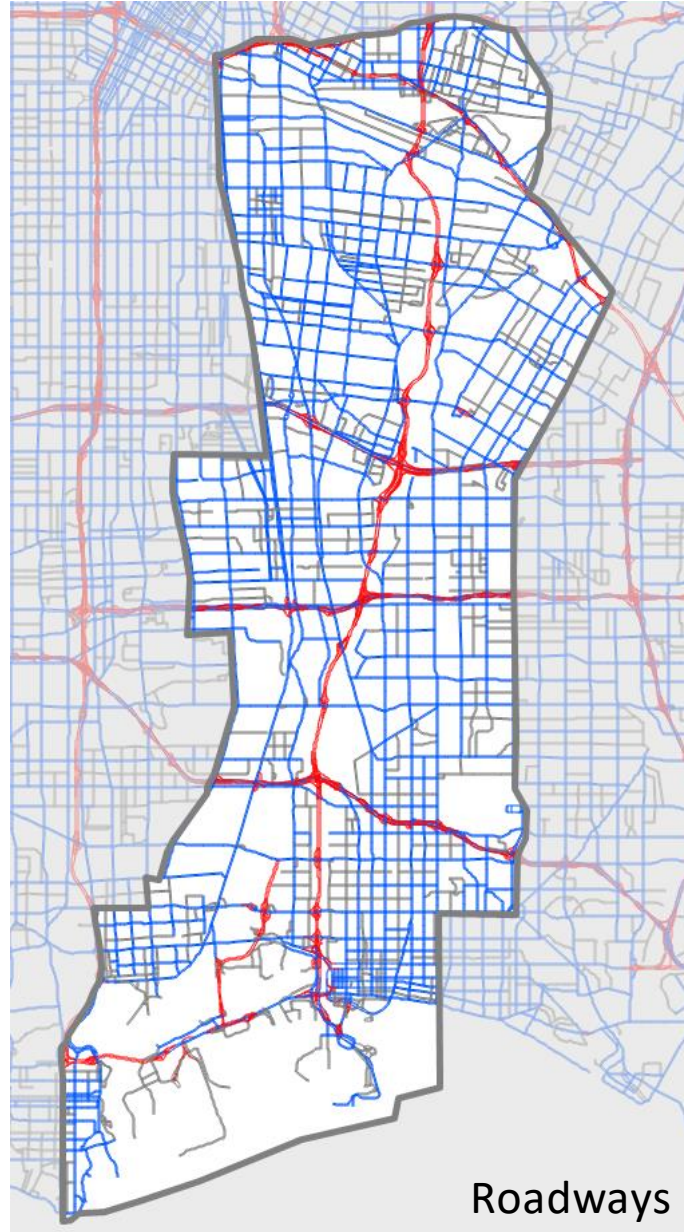
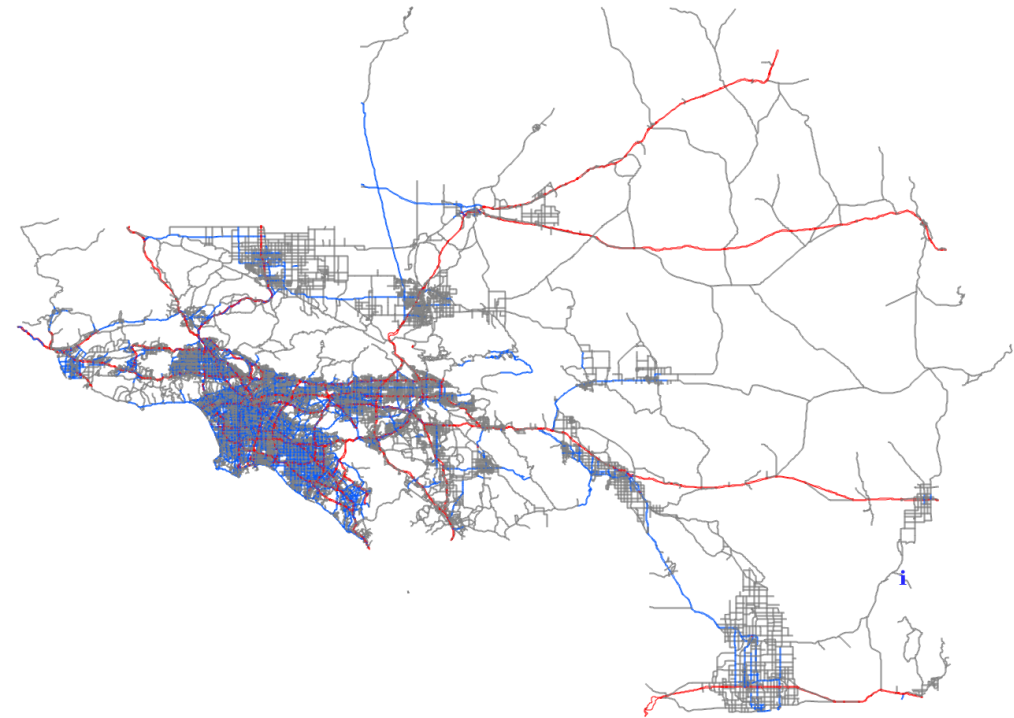
# SCAG's 2020 RTP Activity-Based Model (ABM)

- > Created and calibrated by the Southern California Association of Governments (SCAG)
- > Includes Los Angeles, Ventura, Orange, San Bernardino, Riverside, Imperial Counties
- > Estimates household socio-economic characteristics and simulates daily activities of household individuals
- > Estimates chains of trips to complete those daily activities based on the available transportation networks and their levels of service
- > Population Trip Modes (14):
  - Auto Driver (SOV, HOV2, HOV3+)
  - Auto Passenger
  - Walk to Transit (conventional, premium)
  - PnR to Transit (conventional, premium)
  - KnR to Transit (conventional, premium)
  - Walk
  - Bike
  - Taxi
  - School Bus
- > Goods Movements
  - Light, Medium, & Heavy Trucks

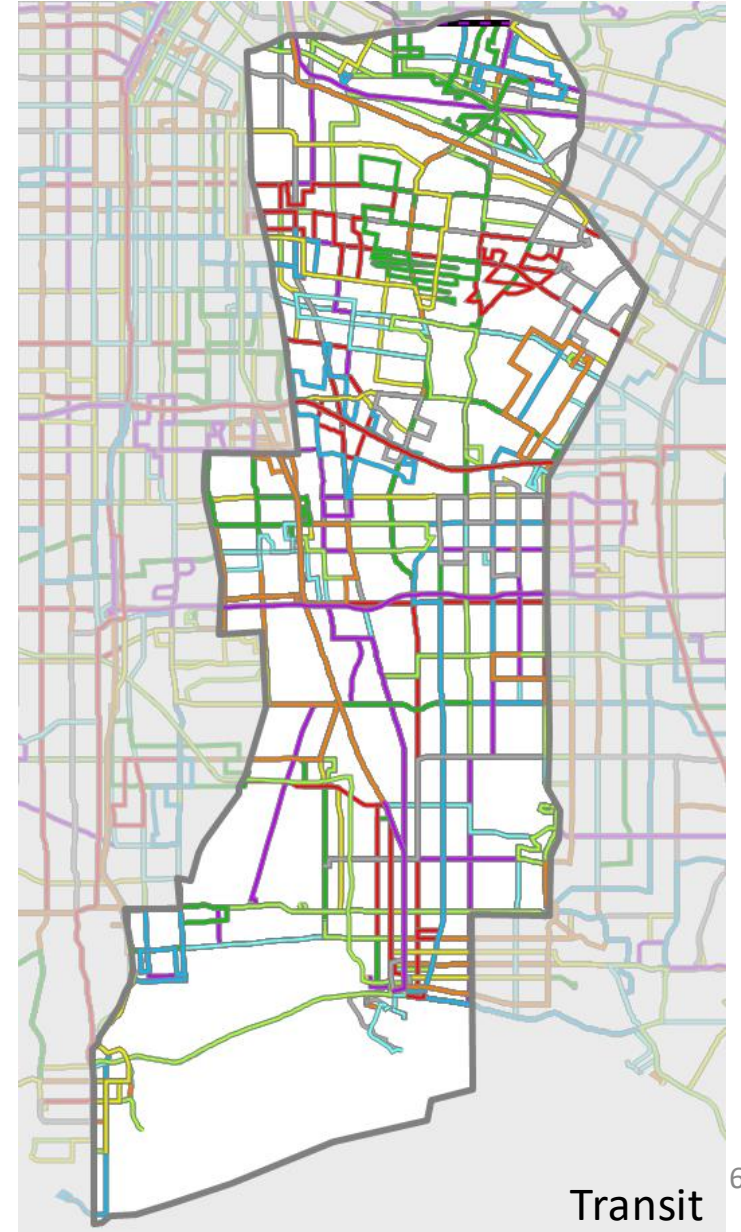


# TDM Model Network Extents: LB-ELA

- > Regional Extents (6 County Region)
- > Roadways: Freeways + Arterials
- > Transit: Rail Lines + Buses Routes



Roadways



Transit

# TDM Model Outputs

- > Model Outputs:
  - Individual roadway volumes
  - Vehicle Miles or Hours Traveled (VMT, VHT)
  - Person Miles or Hours Traveled (PMT, PHT)
  - Congestion Delay (Hours of Delay)
  - Roadway average congested speeds
  - Travel Times (trips and roadways)
  - Transit Ridership (by line/route)
  - Transit Mode Share
- > With Additional Post-Processing of Model Outputs
  - Air Quality Modeling of Mobile Emissions
  - Integration with GIS and other Analytical Analysis Methods

# Analysis Year 2045 & Baseline Scenario

- > Analysis Year = 2045
  - Need to analyze investments over a long time frame
  - Need to evaluate projects over the potential development cycles – some take a long time to plan and complete
  - Evaluation under future build-out conditions - stress test under more growth and demand
  - 2045 is consistent with regional land use and socio-economic and cargo growth forecasts (RTP 2020)
- > 2045 LB-ELA Baseline Scenario (aka No Build)
  - Includes all regional and local projects *already committed* to be completed by 2045
  - Projects sourced from 2020 RTP as well as other sources
  - *Excludes* all proposed LB-ELA projects and programs that are not yet committed
  - Projects most notably include:
    - Full NextGen Bus redesign implemented
    - Port's cargo forecasts for 2045
    - Regional and corridor land use and socio-economic growth forecasts
  - Project Scenarios will be compared to this baseline to assess project impacts

# Forecasting LB-ELA Project Impacts

- > Arterial & Freeway Projects
  - Roadway Improvements
    - Intersection improvements, new connections, capacity changes, pricing
  - Roadway volumes, travel times, speeds, etc.
- > Transit Projects
  - Improvements to transit (Bus, BRT, Light Rail, Heavy Rail)
    - New lines or routes, Improved headways on existing lines, Changes to routes
  - Ridership, impacts from reduced vehicles on roadways
- > Active Transportation Projects
  - Can estimate shifts of trips from vehicles to ped/bike modes due to improved AT facilities
    - Impacts of reducing vehicles on roadways
- > Goods Movements
  - Port Operational changes on rail and truck flows
    - On/Near dock rail, changes to port truck forecasts
  - Truck activities (O-D trips), delays, travel times, volumes, etc.

# Air Quality Modeling

- > Apply emission models for each vehicle type in traffic model outputs
  - Spatial distribution of vehicle volumes and speed from traffic model output
- > Latest CARB Models for emission factors
  - EMFAC and OFFROAD
- > Produce maps for emissions changes to compare project impacts vs baseline
  - See example on the right
- > GIS tools to calculate emission changes for the study area and EFC zones



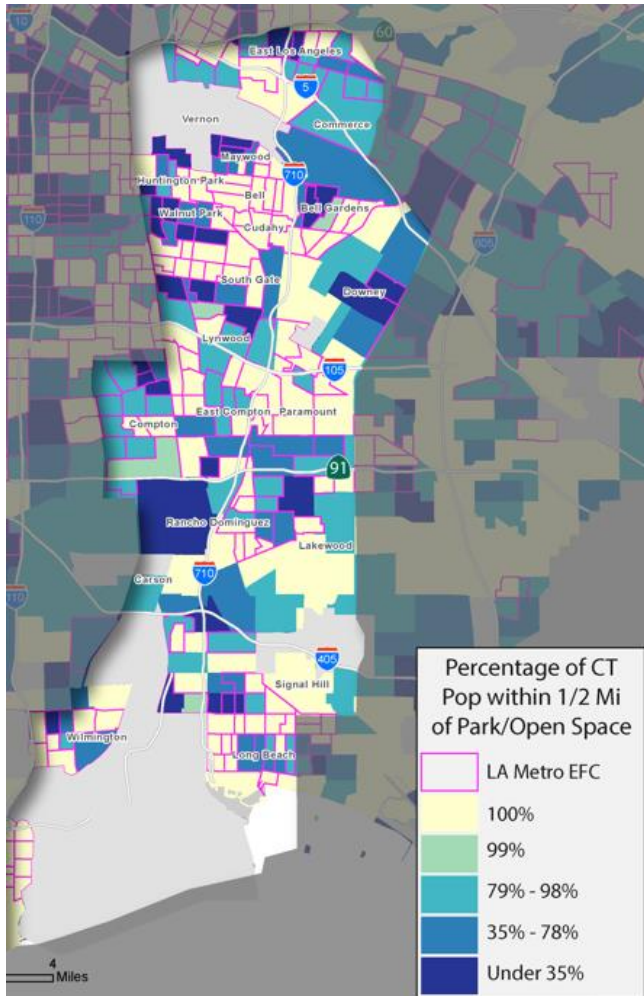
Example: Gridded  
Emission Maps: NO<sub>x</sub>,  
PM<sub>2.5</sub>, DPM

# GIS Analysis

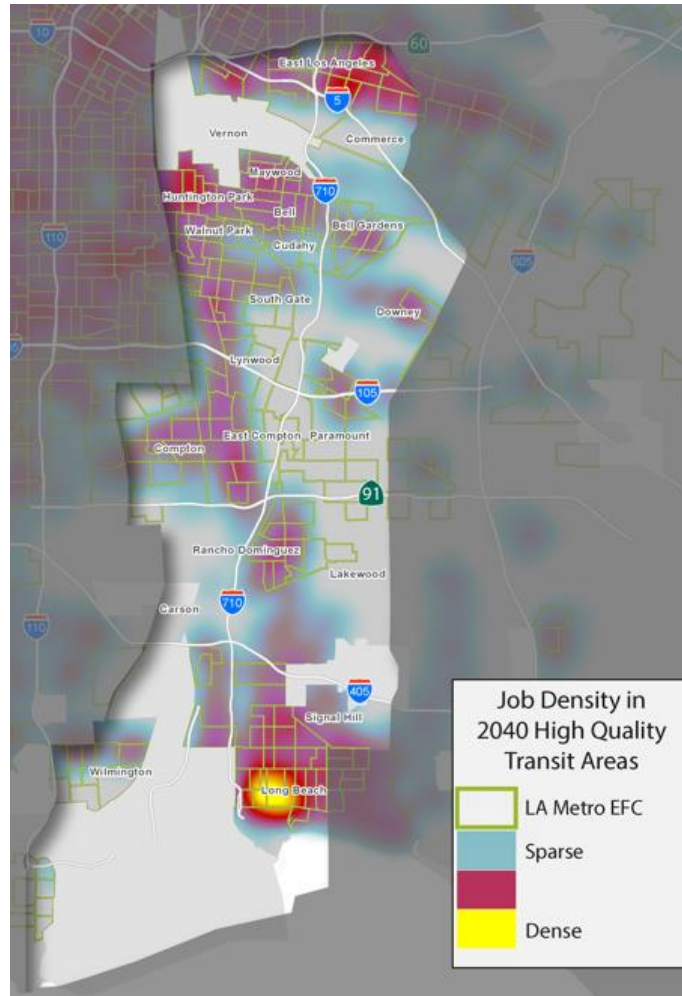
- > Leverage GIS tools to analyze geo-spatial relationship between project benefits or impacts and different areas or populations
- > Examples:
  - Localized benefits or impacts:
    - Roadway segment speeds, mobile emissions
    - Access to bike lanes within 2 miles
    - Truck VMT by roadway segment
  - Trip-end-based benefits or impacts:
    - Travel times between two zones
    - Number of jobs within a 45-minute commute by mode
  - Distance-based metrics
    - Population within ½ mile of a pedestrian trail
    - Population within the impacted zone of a new noise barrier wall

# GIS Examples

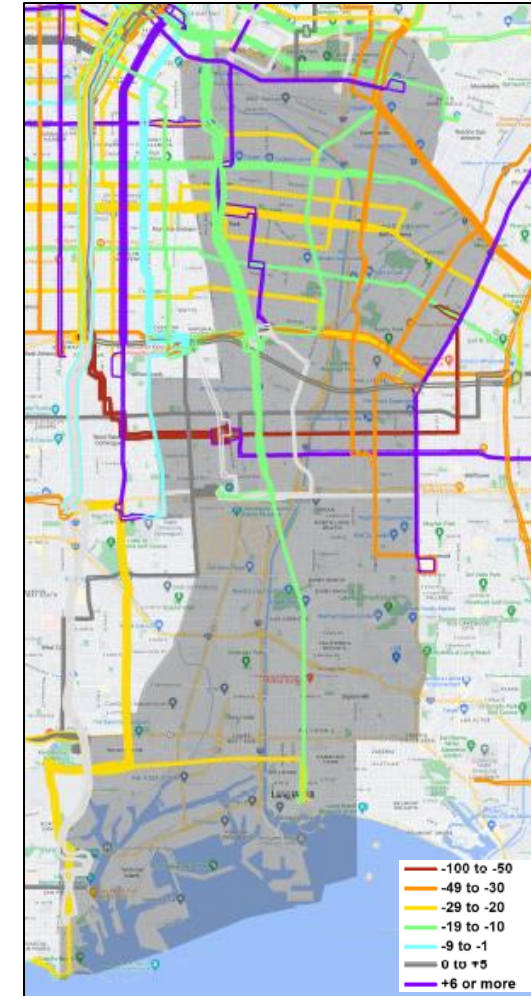
Population Share within ½ mile of Park Access



Job Density in High Quality Transit Areas



2045 vs 2022 Bus Headway Changes in Minutes (AM peak)



# Qualitative Analysis Methods

- > Not all projects can use tools, models, or otherwise quantifiable analytical methods to forecast project performance impacts
- > Need for Qualitative Analysis as well:
  - Tools and models not able to forecast impacts for some projects
    - e.g., Safety-focused projects,
    - Community Programs, or
    - Broader programs without geographically specific details
  - Rely on:
    - Past experiences with similar projects
    - Literature reviews on expected benefits
    - Intentions of projects or programs

# Task Force Discussion

# Public Comment

You will be given **1 minute** to make your question or comment, in order to maximize participation.

01:00

mins:  secs:  type:

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# Closing Remarks and Next Steps

# Corridor Tours for Task Force and CLC Members - Update

## > Purpose

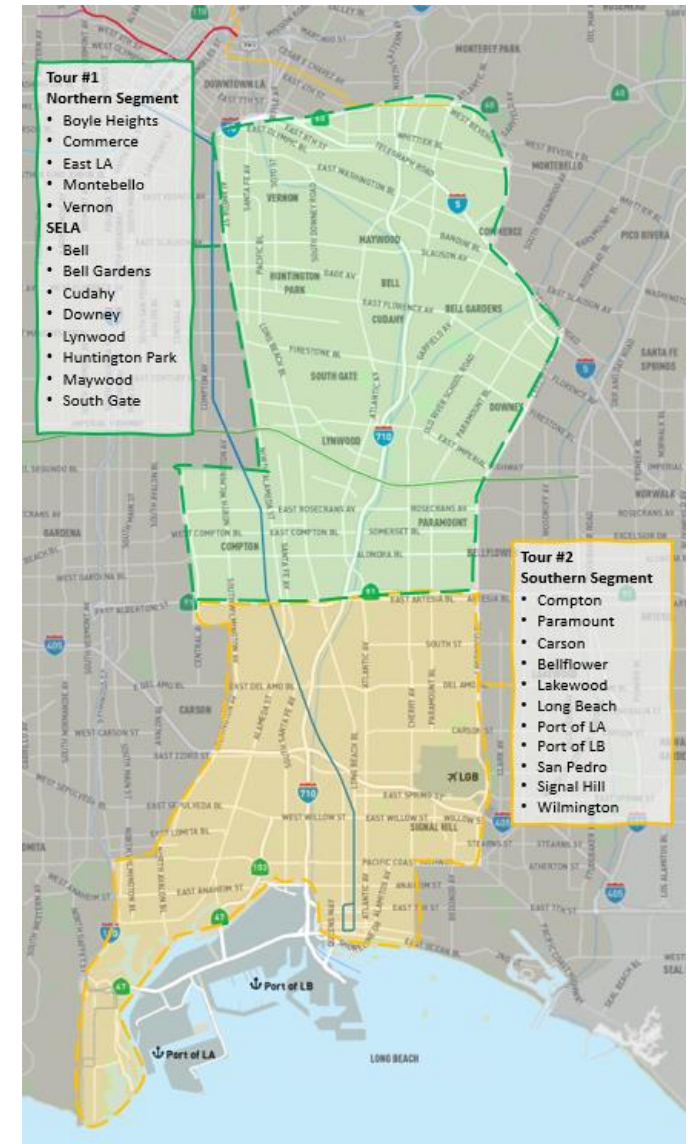
- Provide a first-hand opportunity to view planned improvements as well as built examples of similar projects that are being considered for the LB-ELA Corridor Plan.
- Create an interactive exchange for all project participants to provide unique perspectives from their respective communities on potential opportunities, issues and concerns.

## > Plan

- 2-Day Corridor Tour: Northern Segment (East LA to SR-91) and Southern Segment (SR-91 to LB)
  - Preliminary Dates – *late April/early May*

## > Zoom Poll Questions

- Open for Task Force and CLC members



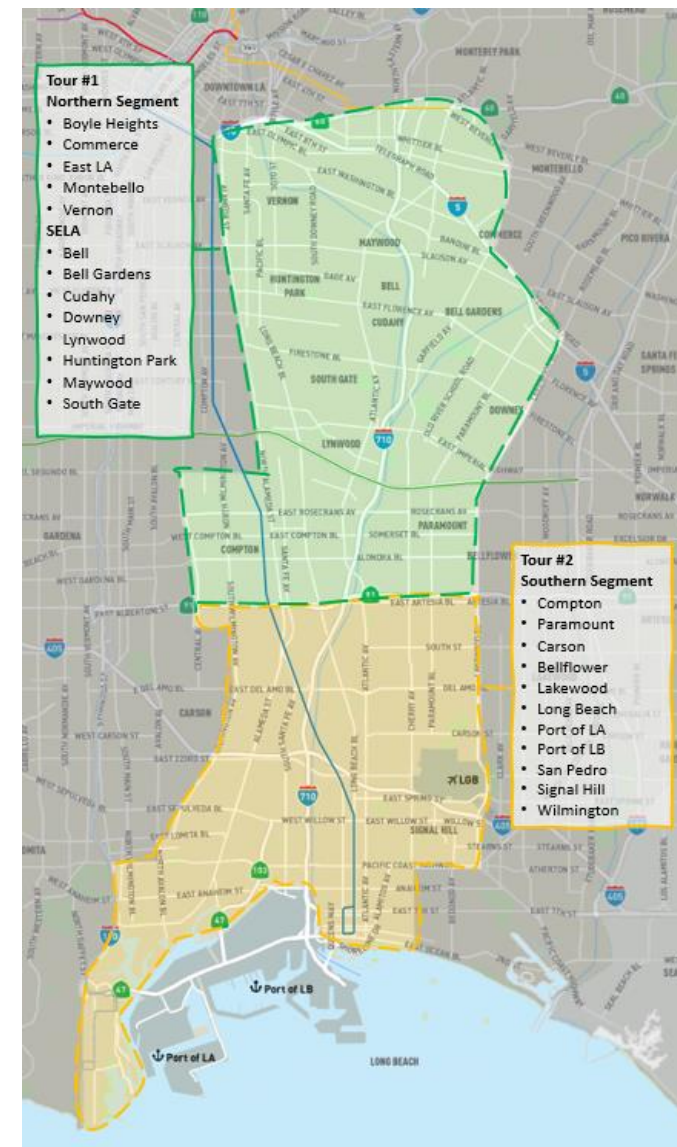
# Corridor Tours for Task Force and CLC Members - Polls

## NORTHERN SEGMENT CORRIDOR TOUR

1. I plan to attend the **Northern Segment** Corridor Tour (East LA to SR-91). My preferred date are: *(Select up to three options)*
  - Wednesday, April 26th
  - Saturday, April 29th
  - Thursday, May 4th
  - Saturday, May 6th
  - Thursday, May 11th
  - I do not plan to attend the Northern Segment Corridor Tour
2. I am only available to attend the first half of the **Northern Segment** Corridor Tour (9am-12pm) and require transportation accommodations to return to the tour starting point during the 12pm lunch break. **(Yes/No)**

## SOUTHERN SEGMENT CORRIDOR TOUR

1. I plan to attend the **Southern Segment** Corridor Tour (SR-91 to Long Beach). My preferred date are: *(Select up to three options)*
  - Wednesday, April 26th
  - Saturday, April 29th
  - Thursday, May 4th
  - Saturday, May 6th
  - Thursday, May 11th
  - I do not plan to attend the Southern Segment Corridor Tour
2. I am only available to attend the first half of the **Southern Segment** Corridor Tour (9am-12pm) and require transportation accommodations to return to the tour starting point during the 12pm lunch break. **(Yes/No)**



# Upcoming Meetings and Project Information

## Community Leadership Committee Meeting

- > Meeting #13

*Thursday, March 23, 5-7pm*

- > Meeting #13.5

*Thursday, March 27, 5-7pm*

## Task Force Meeting

- > Task Force Meeting #19

*Monday, April 10, 5-7pm*

## Working Group Meetings

- > Equity Working Group #11

*Thursday, March 30, 5-7pm*

- > Zero-Emissions Truck Working Group #14

*Tuesday, March 21, 1-3pm*

For the most updated list  
of meeting dates, please visit

<https://www.metro.net/projects/lb-ela-corridor-plan/>

# General Public Comment

# General Public Comment

You will be given **2 minutes** to make your question or comment, in order to maximize participation.

02:00

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# Stay connected to this project



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**Thank you for joining us!**