

# Metro Green Line to LAX

Metro Technical Advisory Committee (TAC)

September 7, 2011



# Agenda

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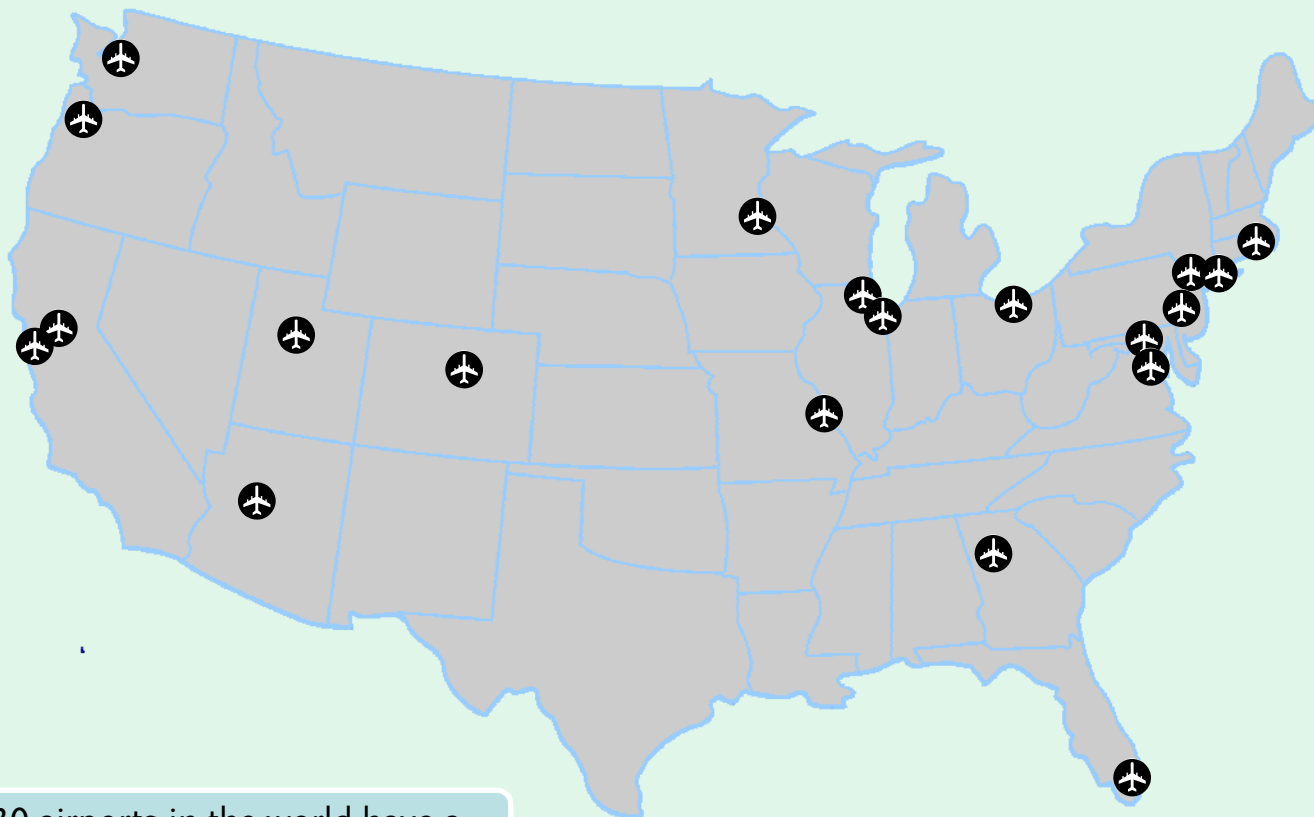
- **Context**
- **Airport Connection Types**
- **Project Process**
- **Questions and Discussion**



# Los Angeles Lacks a Strong Airport Transit Connection

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**Airports in the U.S. with current or planned airport transit connections**



23 of the top 30 airports in the world have a rail/APM transit connection (in operation or under construction)

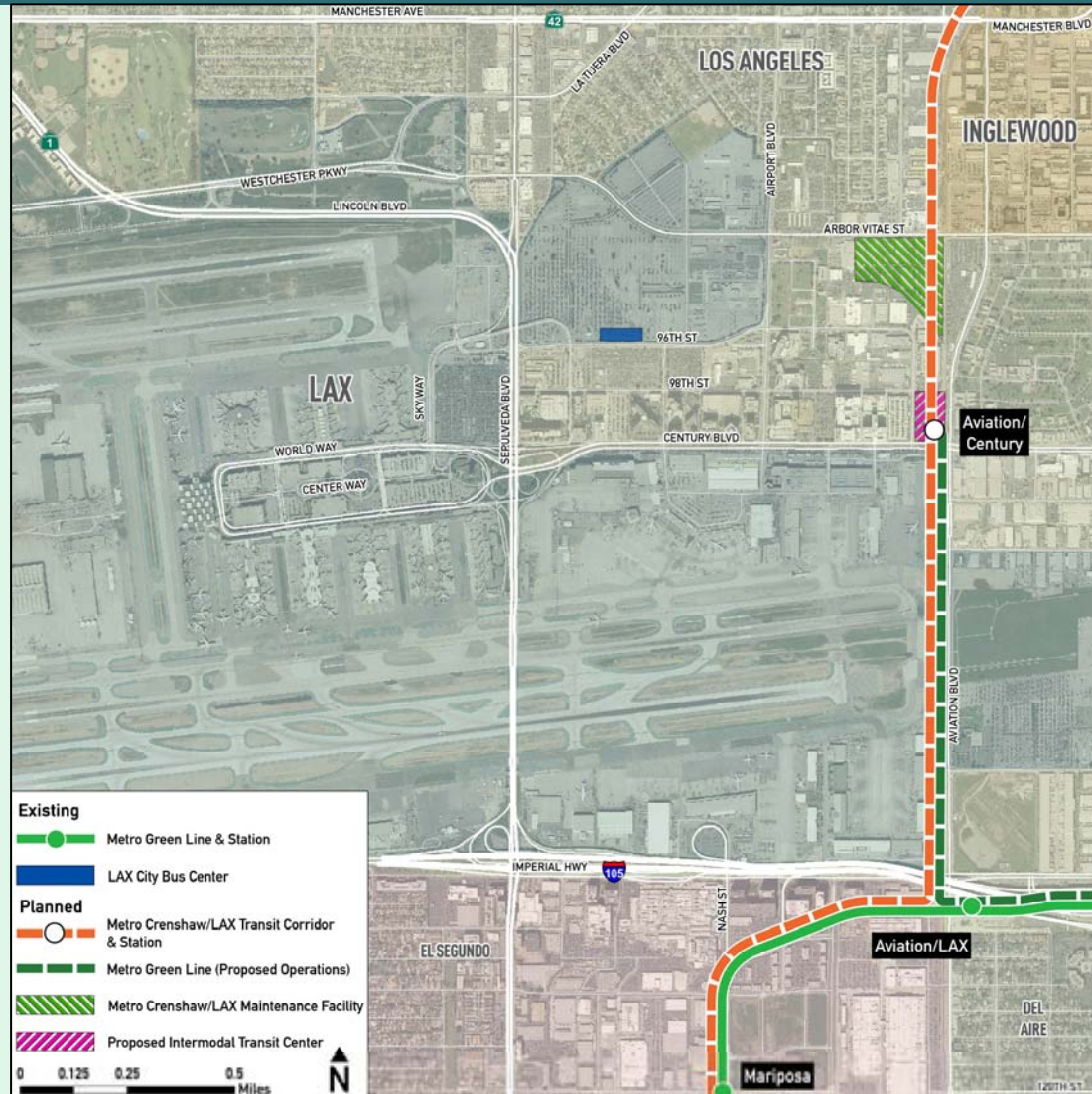
# Regional Context: Measure R

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# Existing/Planned Transit in the Study Area

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# Previous LAX-Related Studies

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1988: Coastal Corridor Rail  
Transit Project



1991: LAX/Metro Green Line  
Interagency Task Force



1994: Metro Green Line Northern Extension Supplemental  
Environmental Impact Report



2002 – 2004: LAX Master Plan



2004 – Present: LAX Specific Plan Amendment Study



2007– Present: Crenshaw/LAX Transit Corridor Project



2008: LAX/Metro Green Line Interagency Taskforce



# Comparison of SPAS to Metro Green Line to LAX Project

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## Specific Plan Amendment Study (SPAS)

Sponsor: LAWA

Environmental review focused on airport-wide improvements

Focus: support modernization of LAX and accommodate nearly 79 million annual passengers

Provide solutions to concerns about certain LAX Master Plan projects

Projects under study:

- Construct Bus Rapid Transit (BRT) or Automated People Mover (APM) system
- Terminal, runway, and taxiway improvements

Completion of DEIR expected early 2012; FEIR expected early 2013

**Common Goal:**  
Connect regional travelers to LAX

## Metro Green Line to LAX

•Sponsor: Metro

•Focus: connect the regional transit network to LAX terminals

Measure R funded project: \$200 M (\$2008)

•Focused on how to best connect transit to LAX

•Modes being considered

- Bus Rapid Transit (BRT)
- Light Rail Transit (LRT)
- Automated People Mover (APM)

•Completion of DEIS/DEIR expected early 2013; FEIS/FEIR expected 2014

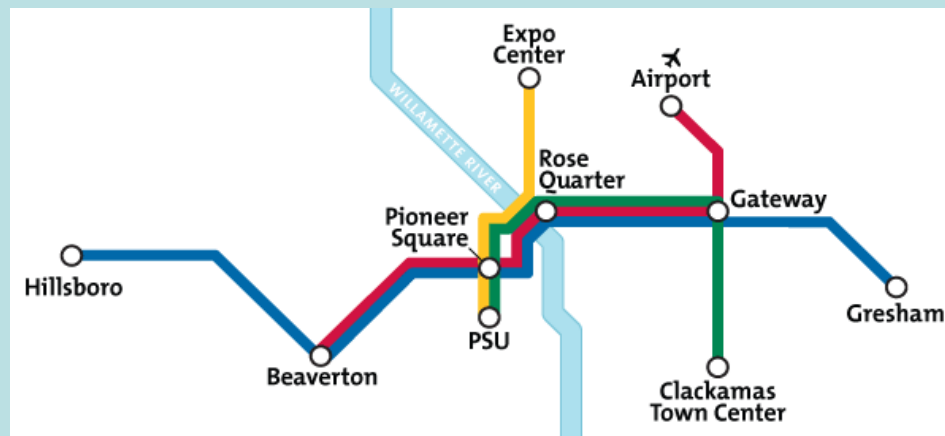
**Collaboration**

# Connection Type: Direct Rail Connection

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- Connects a regional rail system to an airport through a single station but sometimes with multiple stations when there are multiple terminals
- Requires longer walking distances for passengers at airports with multiple terminals
- Often used in airports with compact terminal areas, such as Portland International Airport (PDX)

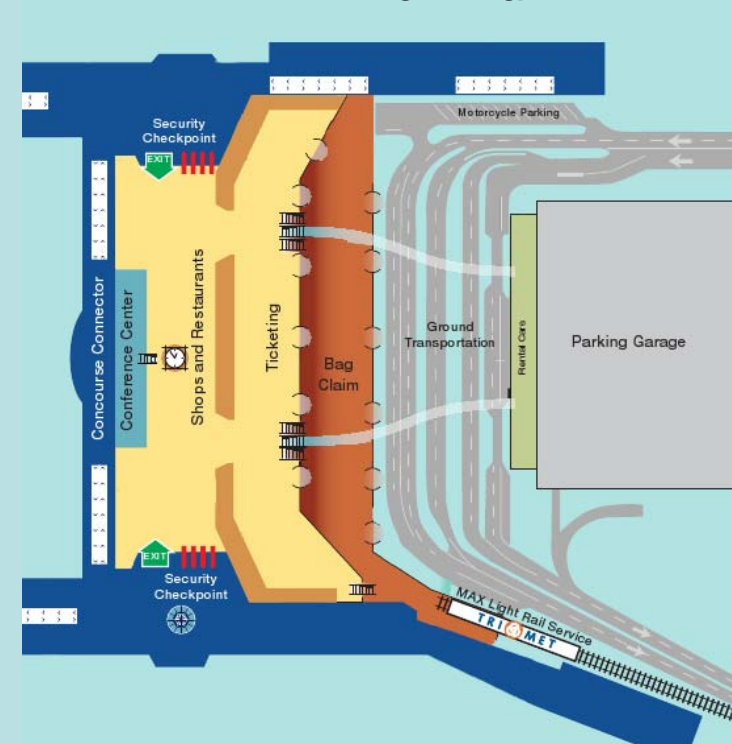
## Portland, OR: TriMet Metropolitan Area Express (MAX)



### About Portland's Direct Rail Connection

- Opened in 2001, allows passengers to travel between the airport and downtown Portland in 38 minutes
- Station is located 200 to 700 feet from airport entrance
- Trains operate every 15 minutes
- Ridership: 6% of airport passengers

## PDX Terminal

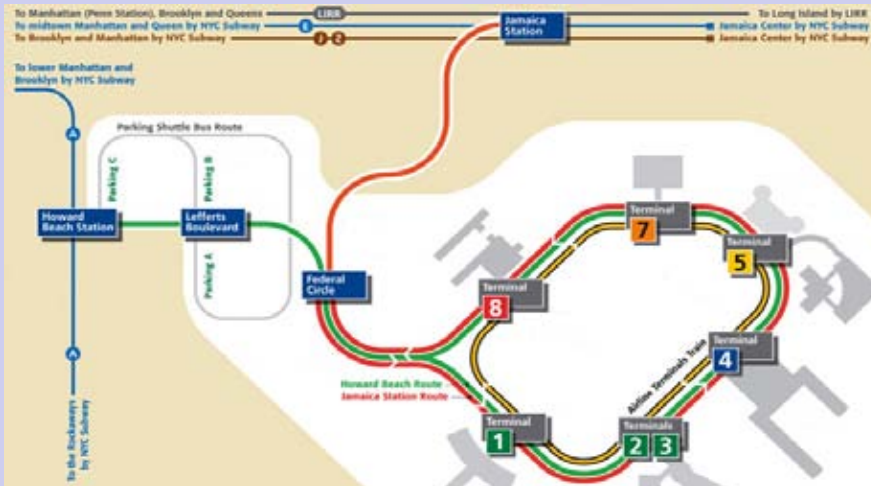


# Connection Type: Airport Circulator

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- Connects regional transit service with an airport-based circulator system
- Provides service between several closely-spaced locations, such as terminals and/or other airport facilities (e.g. parking garages and car rental facilities)
- Passengers must transfer to this system from regional rail once they are within the airport
- Often used in airports with multiple terminals, such as JFK International Airport

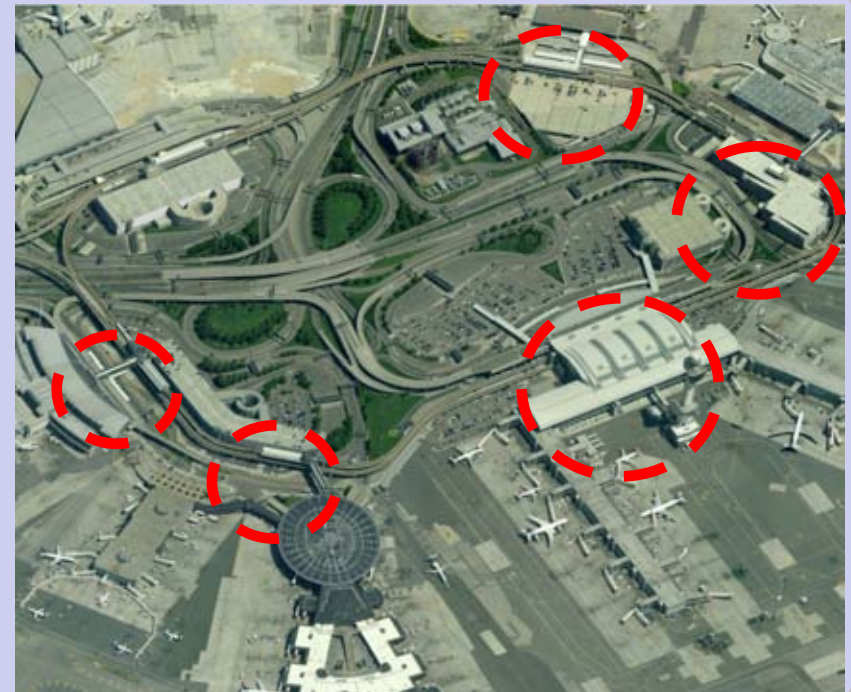
JFK AirTrain System Map



## About JFK's Airport Circulator

- The 10-station system, opened in 2003, allows passengers to travel from midtown Manhattan in approximately 40 minutes
- The distances between the stations and the terminals range from 0 to 950 feet
- Trains operate every 5 minutes
- Ridership: 8% of airport passengers

JFK Aerial



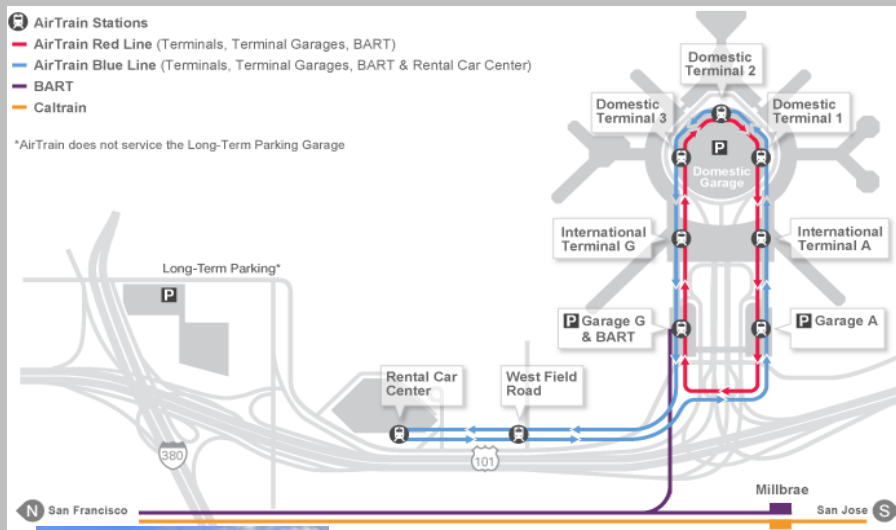
# Connection Type: Hybrid Connection (Direct Regional Rail + Airport Circulator)

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- Terminal(s) served by direct regional transit and a circulator to connect to other terminals
- Often used in airports with one heavily used or central terminal and where terminals have long distances between them

## SFO AirTrain System Map



## About SFO's Hybrid System

- 2.8 mile APM service at SFO connects all terminals, garages, the BART station, rental car center. BART directly services the international terminal
- BART operates every 15 minutes, APM operates every 4 minutes
- The 9-station system, opened in 2003, allows passengers to travel between the airport and downtown San Francisco via BART in approximately 35 minutes
- The distance between the stations and the terminals ranges in distance from 0 feet to 175 feet
- Ridership: 7% airport passengers

# Types of Modes

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## Light Rail Transit (LRT)

- Electrically powered by overhead wires
- Vehicles can be linked together to carry up to 335 passengers per 2-car train set
- Requires traction power substations every mile along tracks
- Can share maintenance facility with light rail system
- Considered for direct regional rail connection



## Bus Rapid Transit (BRT)

- Low- to medium-capacity vehicles comparable to Metro Orange Line
- Utilizes technologically-advanced buses and dedicated bus lanes to offer rail-like service at a lower cost with greater flexibility
- Can accommodate up to 60 passengers per vehicle
- Can share maintenance facility with bus system
- Can accommodate curbside service
- Considered for an airport circulator system connection

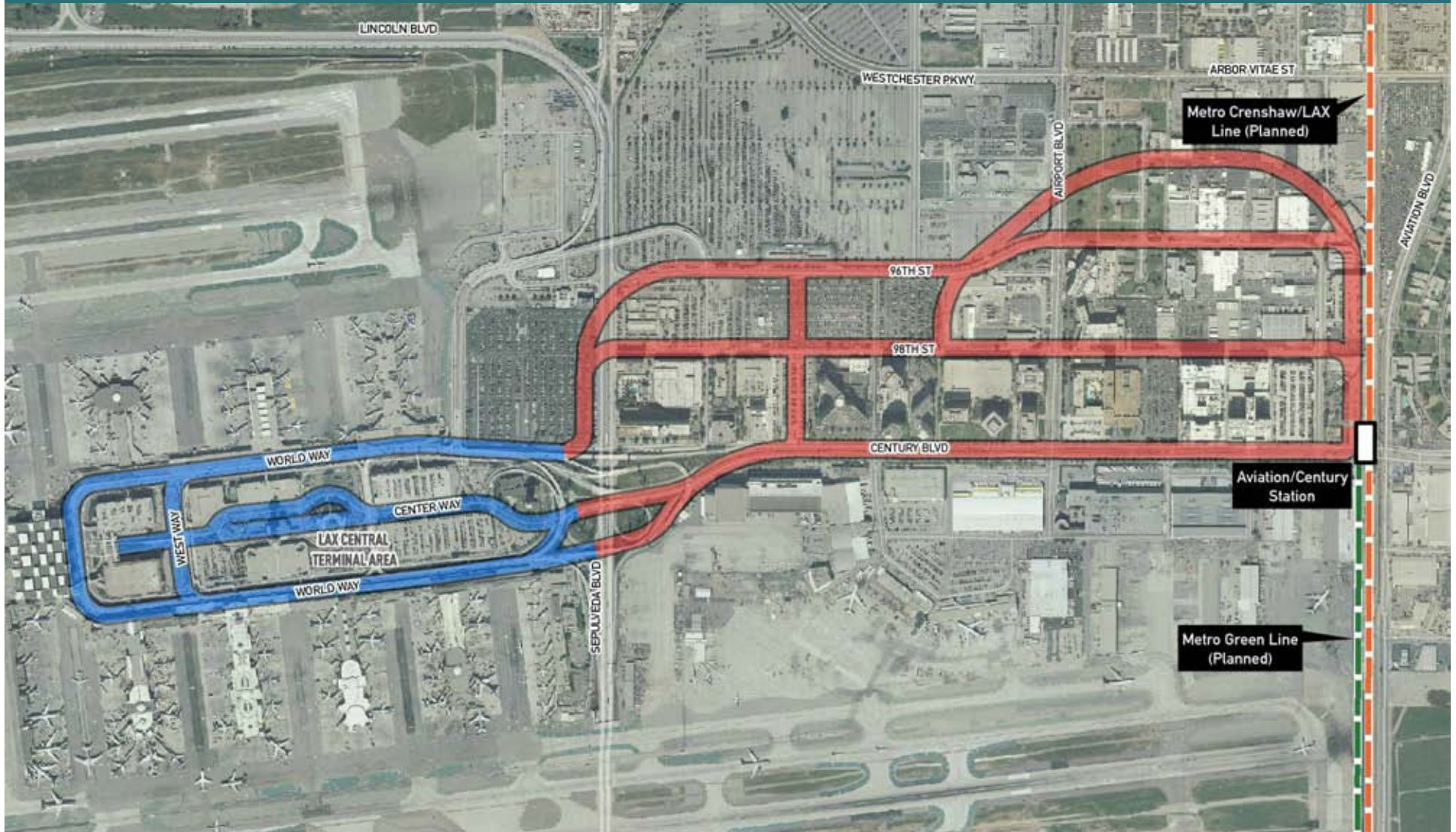


## Automated People Mover (APM)

- Low- to medium-capacity automated vehicles that are not interoperable with Metro lines
- Utilizes electric cars operating on grade-separated, exclusive tracks
- Can accommodate up to 50 passengers per vehicle
- Requires additional maintenance facility
- Considered for airport circulator system connection

# Initial Alignment Options

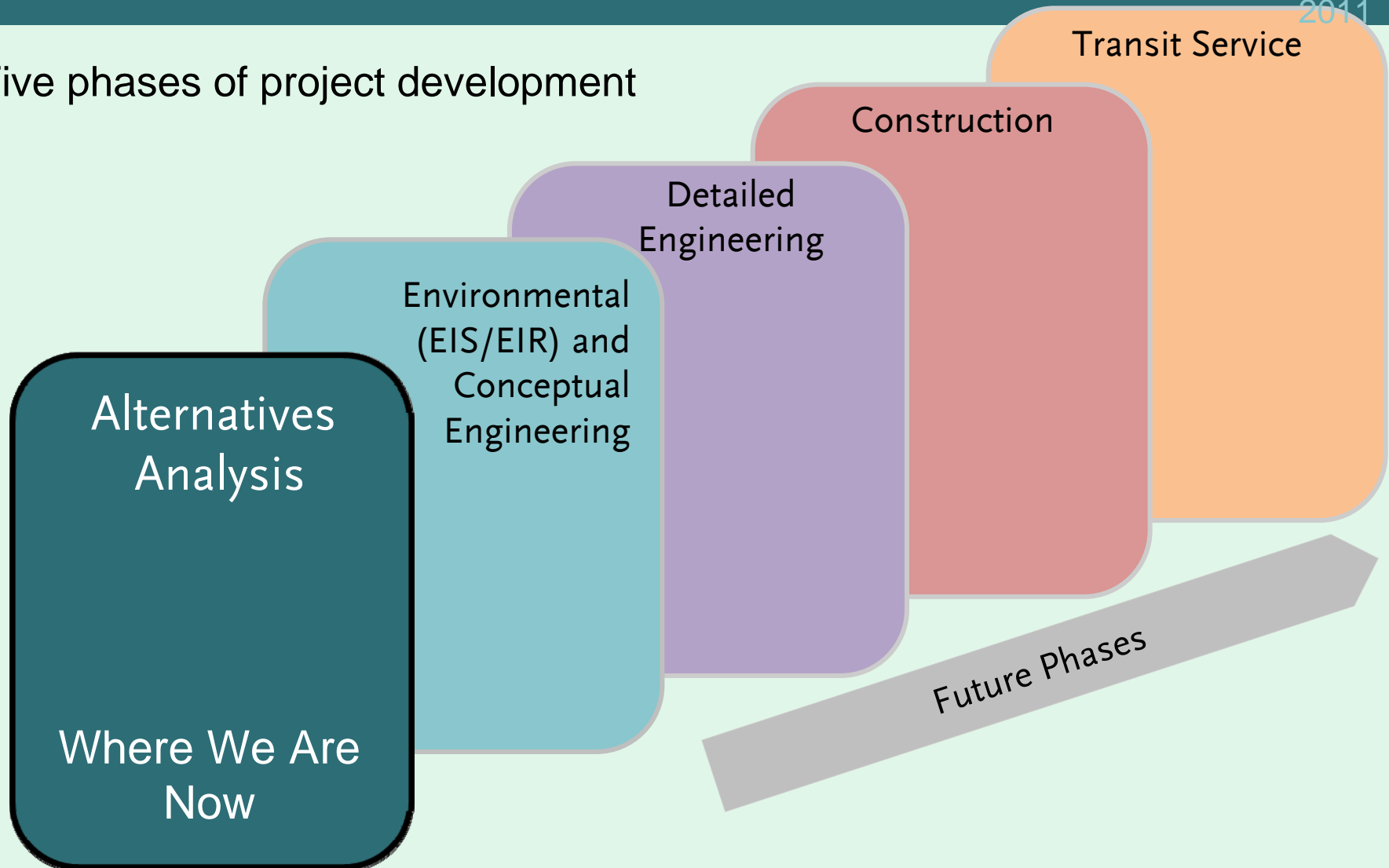
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# Project Development Process

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Five phases of project development



# Purpose & Need

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1. Provide a high quality experience for passengers traveling between airport terminals and the regional transit system
2. Satisfy travel demand associated with a modern, world-class international airport
3. Increase the share of transit trips to and from LAX and reduce regional traffic congestion with minimal impact on airport facilities and surrounding communities
4. Integrate with existing and future transit connections and airport facilities
5. Design an airport connector project that best leverages all potential funding sources

# Alternatives Screening Criteria

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1. Enhance the passenger experience

2. Facilitate ease of connectivity from Central Terminal Area (CTA) to off-CTA airport related functions and regional transit network

3. Promote ridership

4. Avoid conflicts with FAA safety areas, utilities, and passenger-restricted zones

5. Yield high project benefits in relation to costs

6. Maximize institutional and funding support

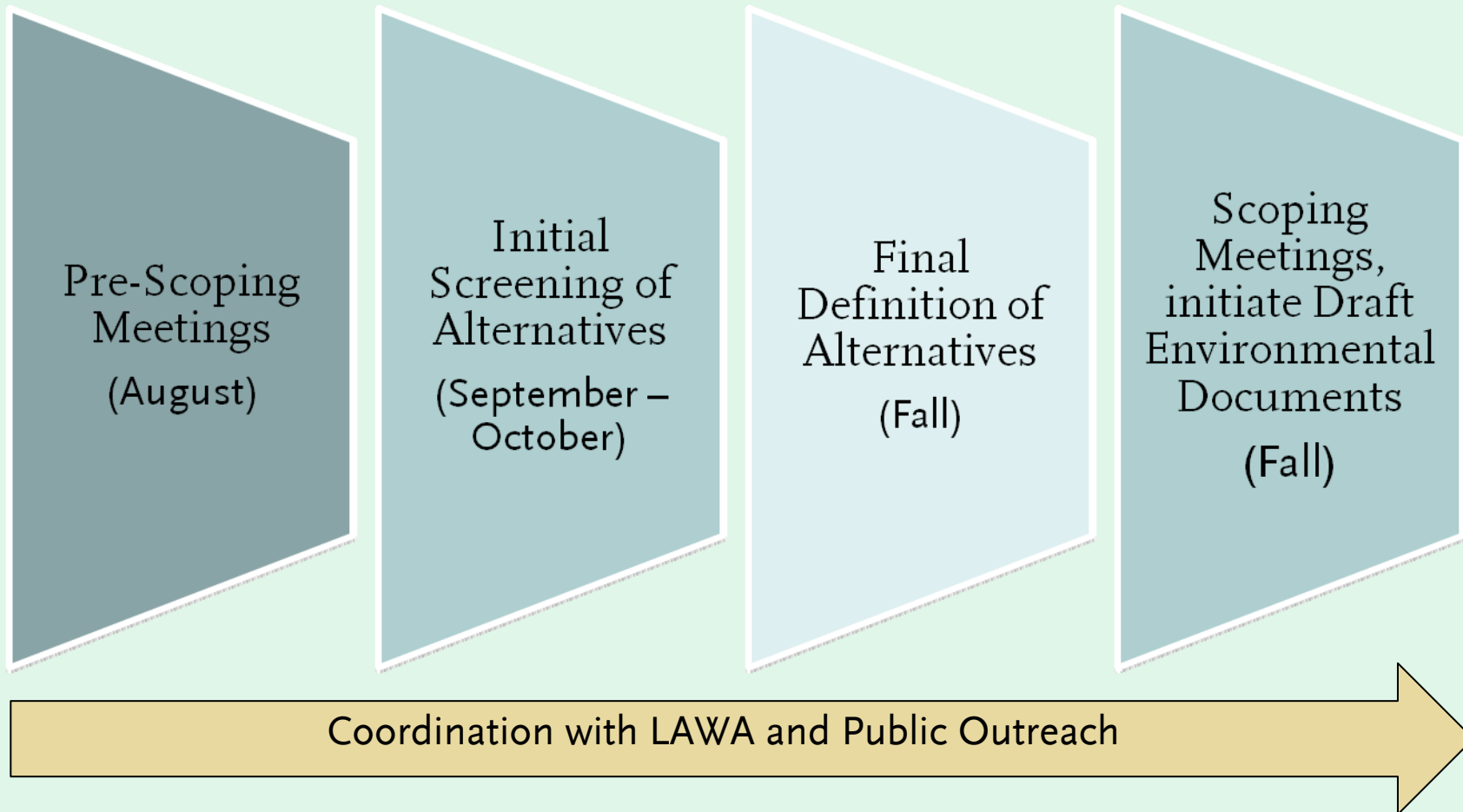
7. Reduce traffic impacts on the regional transportation system

8. Demonstrate compatibility with long-term regional plans

9. Accommodate high volume passenger loads in a line-haul configuration

# Upcoming Activities

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# Questions and Discussion

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