



# Connected Corridors I-210 Pilot Project

## California Highway Patrol



April 22, 2014

# Agenda

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- Introductions
- Project Overview
- Project Schedule
- Project Outreach
- CHP Involvement
- Next Steps



# Caltrans and CHP

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- Caltrans' mission is to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability
- The CHP's mission is to provide the highest level of safety, service, and security on state freeways and highways to the people of California
- Caltrans and the CHP work closely together (LARTMC), incident management, traffic control, etc.
- CHP will be an important partner for the I-210 project



# Recent Incidents on the I-210

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- LA Times, April 2<sup>nd</sup>: “Big-rig crashes in rain close freeway in Pasadena two days in a row”
- LA Times, April 1<sup>st</sup>: “Jackknifed big rig blocks access to 210 Freeway in Pasadena”
- LA Times, December 17, 2013: “Fiery crash involving 2 big rigs closes westbound 210 Freeway”

# November 21, 2013 Incident on the I-210

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E/210 to E/210  
Tunnel Accident  
Nov. 21, 2013  
First Rain of the  
Season





# November 21, 2013 Incident on the I-210

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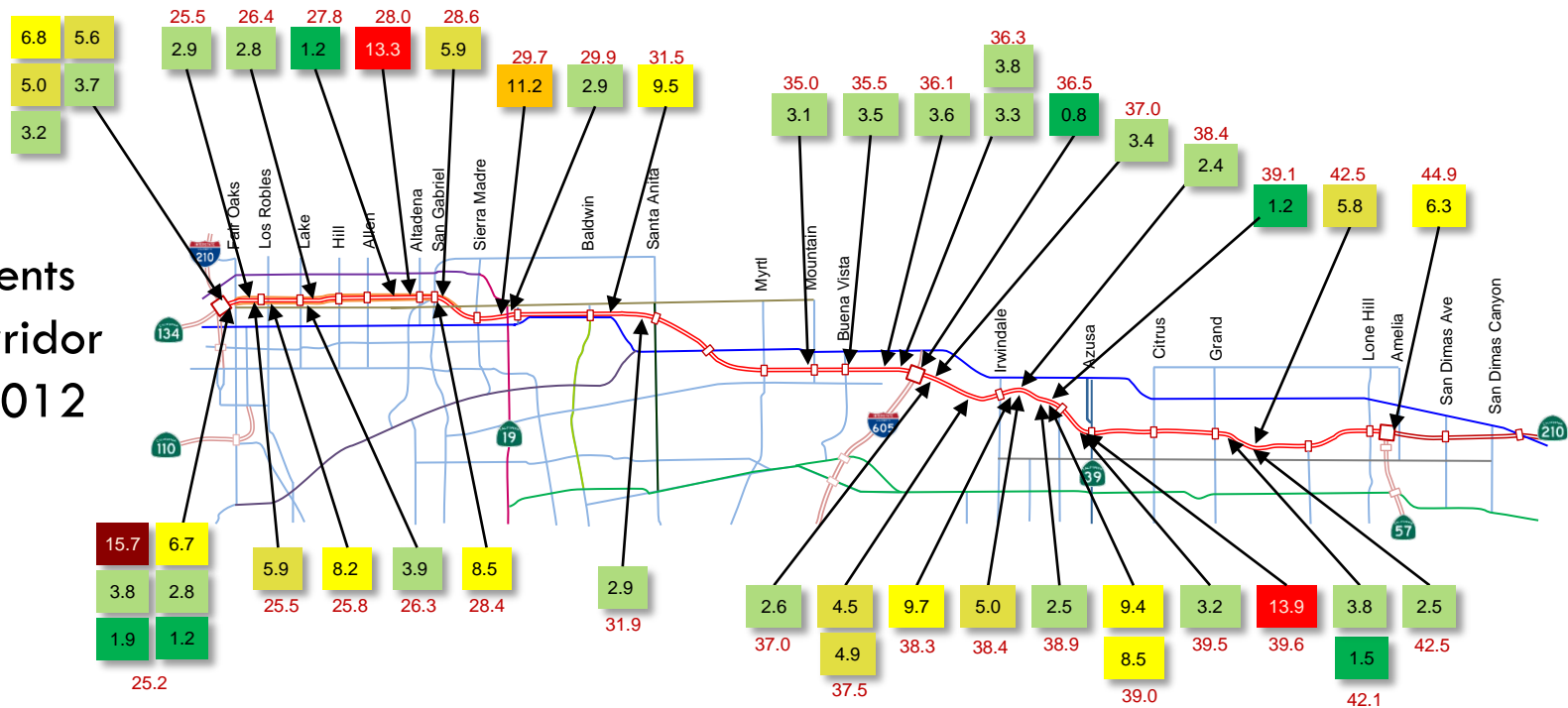
E/210 @ Madre  
Nov. 21, 2013  
First Rain of the  
Season



# Incidents on I-210 (2009 to 2012)

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## Major Incidents on I-210 Corridor 2009 thru 2012



- Total of 5,942 incidents just on I-210 freeway in 2013 (495 per month).
- Total of 1,684 collisions just on I-210 freeway in 2010 (140 per month).

# Current Operations

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- ❑ **Unused Capacity** - Transportation corridors often contain unused capacity in the non-peak direction on freeways and arterials; single-occupant vehicles and transit services could be leveraged to help reduce congestion
- ❑ **Traveler Information** - Traffic information today is often fragmented, outdated, or not completely useful
- ❑ **Networks are independently operated** - Efforts to date to "reduce congestion" have focused on optimization of individual networks

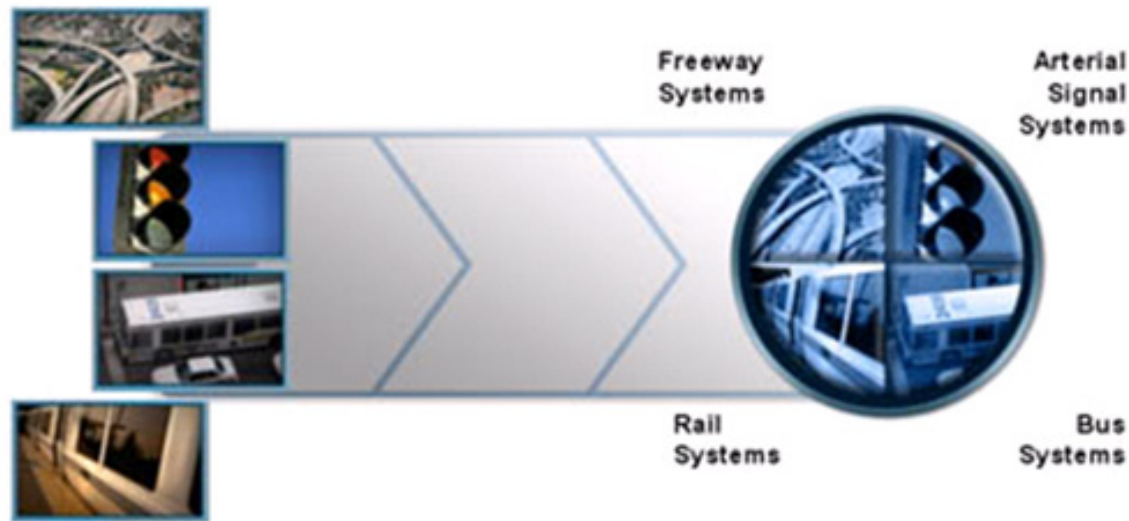




# Integrated Corridor Management (ICM)

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- With ICM, partner agencies manage the transportation corridor as a system, rather than managing individual assets, in order to improve travel time reliability and predictability, help manage congestion, and empower travelers through better information and more choices through all facilities and modes.



# Existing ICM Efforts (United States)

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Corridor	Corridor Type	Lead Agencies	Activities
I-15 Diego	Suburban	SANDAG	<ul style="list-style-type: none"> <li>• ConOps and System Requirements developed in 2008</li> <li>• Simulation evaluation in 2009-2010</li> <li>• System launched <b>October 2013</b></li> <li>• Currently in evaluation phase</li> </ul>
US-75 Dallas	Suburban & urban	DART	<ul style="list-style-type: none"> <li>• ConOps and System Requirements developed in 2008</li> <li>• Simulation evaluation in 2009-2010</li> <li>• System launched in <b>April 2013</b></li> <li>• Currently in evaluation phase</li> </ul>
I-80 Bay Area	Suburban & urban	MTC / Caltrans	<ul style="list-style-type: none"> <li>• ConOps developed in 2010</li> <li>• Groundbreaking in October 2012</li> <li>• Expected to be completed <b>Summer 2015</b></li> </ul>
I-95 / I-395 Virginia	Rural, Suburban & Urban	Virginia DOT	<ul style="list-style-type: none"> <li>• ConOps development initiated in 2012</li> <li>• Currently developing deployment plan &amp; partnerships</li> </ul>

# Caltrans Paradigm Shift

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- The I-210 “*Connected Corridors Pilot*” is the first Caltrans-led ICM effort in California and the first corridor site in the “ICM California” plan.
- Caltrans will, with equal buy in and cooperation of stakeholders, lead the planning, implementation and ongoing operational support for 50 corridor segments in California over the next ten years.
- The Connected Corridors Program will mark the beginning of a paradigm shift away from building our way out of congestion, to managing and coordinating our way to improved transportation network performance.

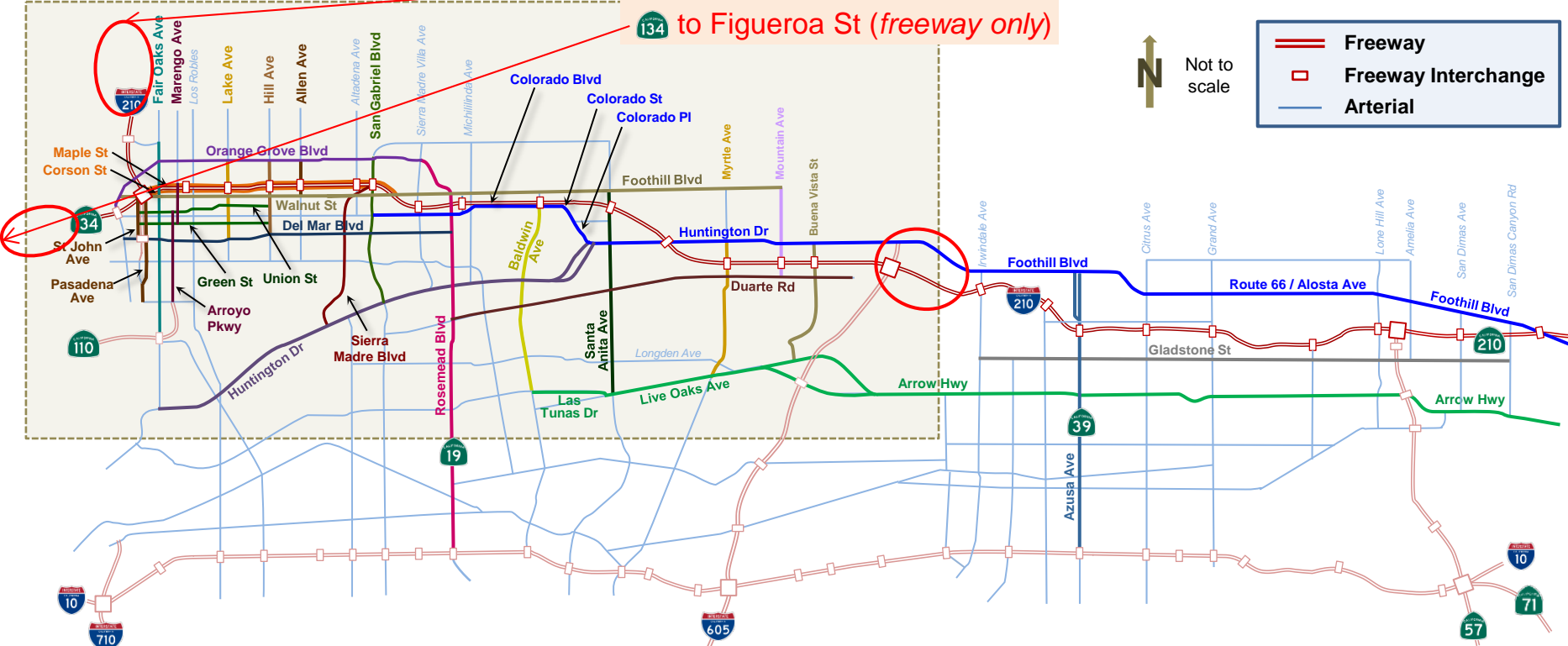


# I-210 Project Corridor

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## Phase 1 Area of Interest

to Arroyo Blvd  
to Figueroa St (freeway only)



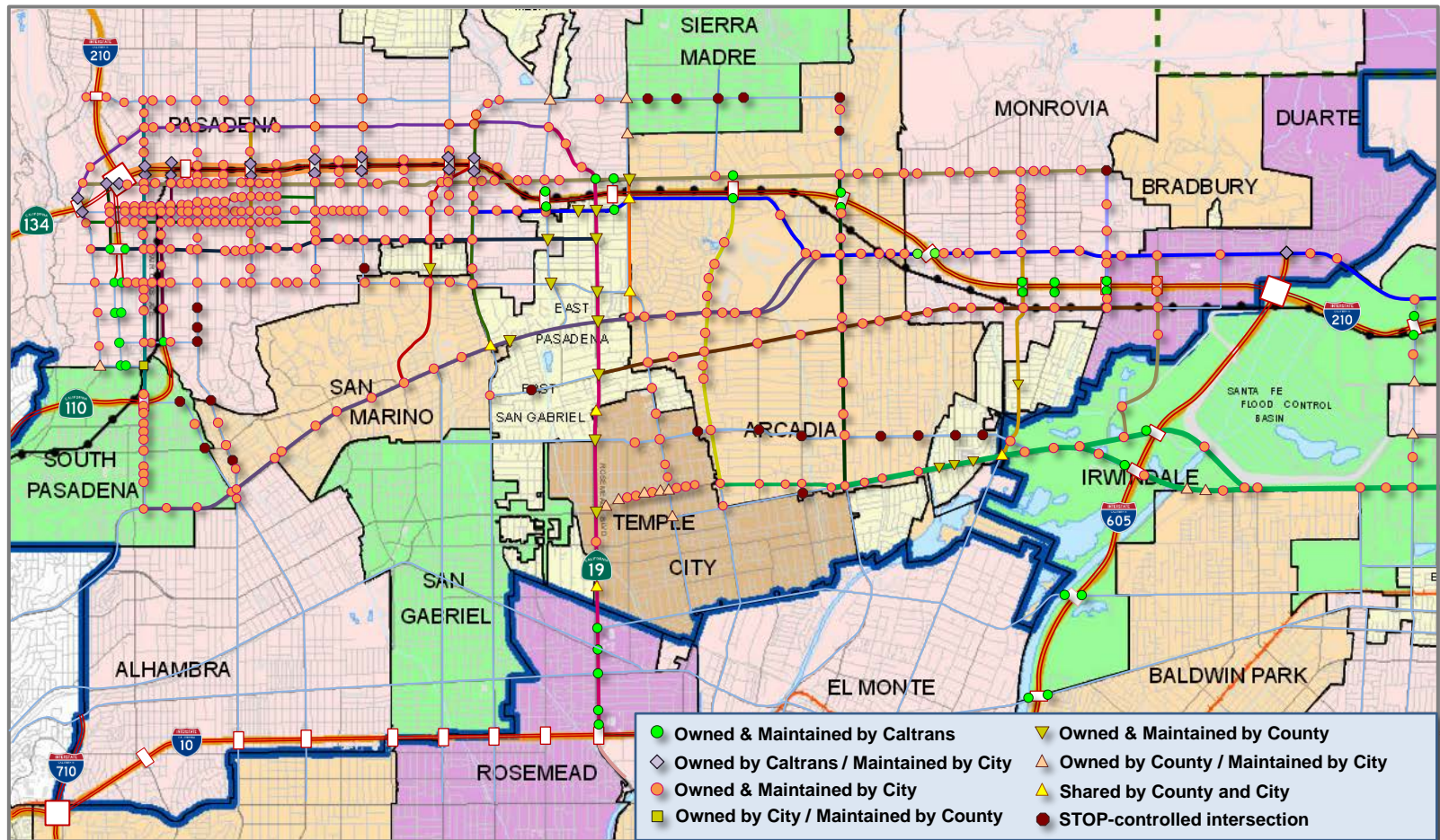
## Current Phase 1 Partners Identified (but are not limited to):

- Caltrans, Metro, LA County, Pasadena, Arcadia, Monrovia, Duarte, SGVCOG, UC Berkeley/PATH (Phase 2 – East to La Verne)



# Freeway and Arterial Traffic Control

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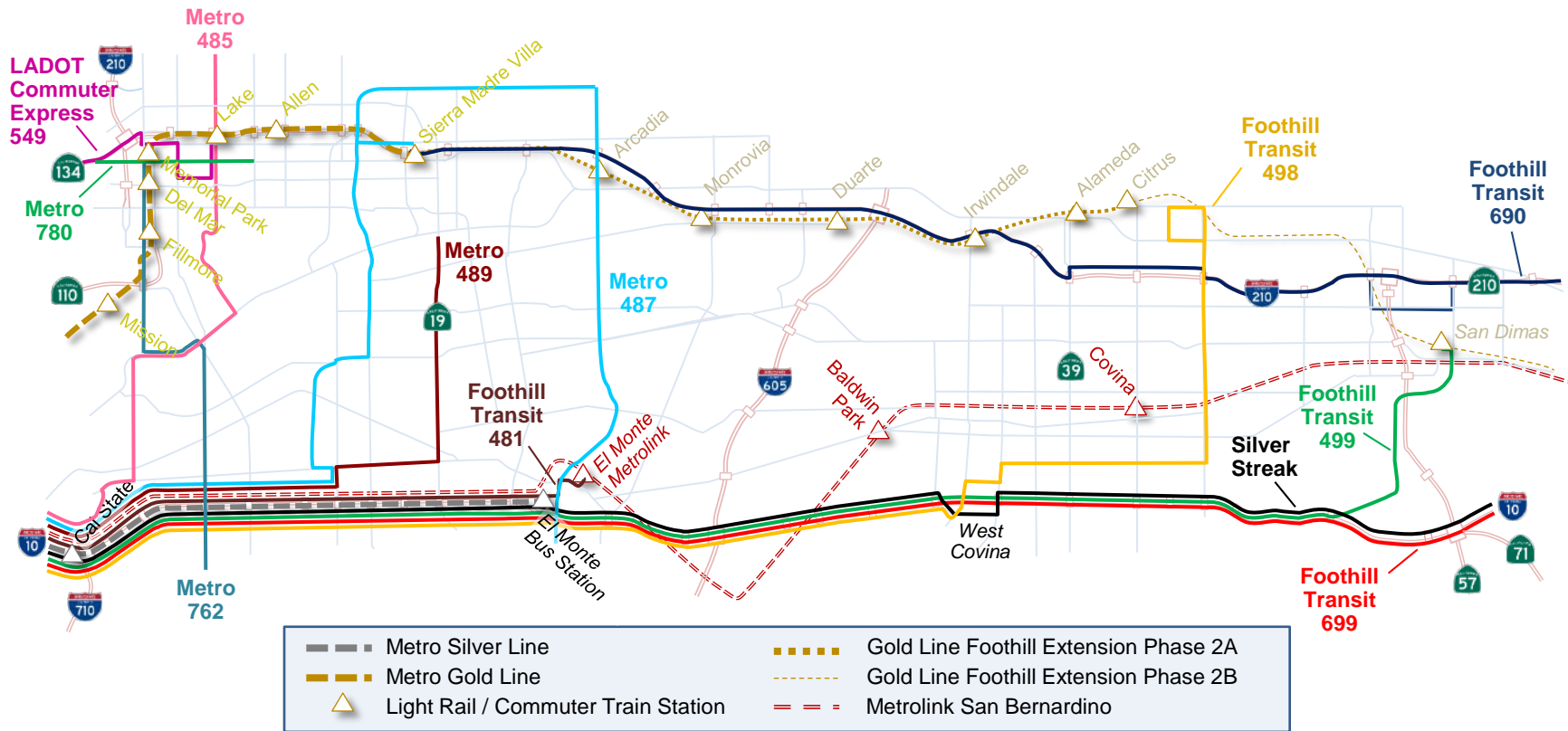


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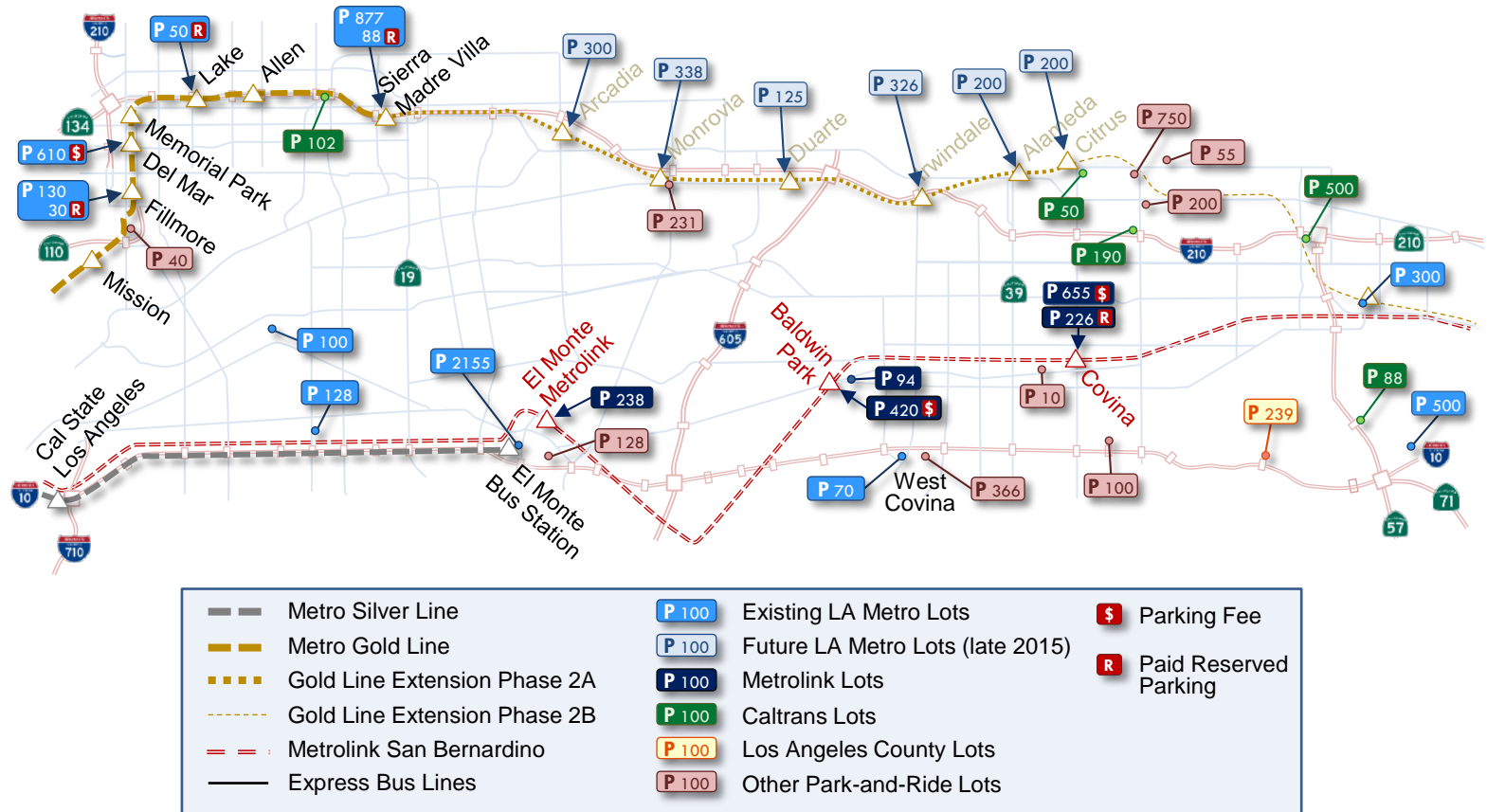
# Express Commuter Buses

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# Parking Facilities

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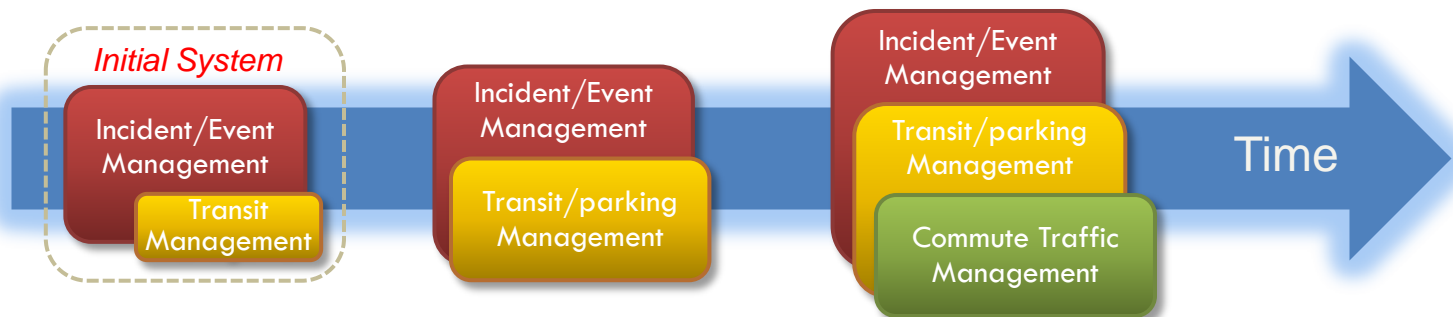
# I-210 Pilot Project Definition

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- **Development and deployment of an ICM system to promote coordinated operations along the I-210**



- **Initial primary focus on managing incidents/events, with gradual expansion to transit, parking and demand management**



# Define Incidents and Strategies Approach

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## □ Define incidents/events categories

<i>Location(s)</i>	<i>Event Type</i>	<i>Lanes Blocked</i>	<i>Impact</i>
Arterial Arterial I/S Freeway ramp Freeway mainline HOV Lane	Stall/Collision Scheduled Closure Police Activity Emergency Event Hazmat Spill Other	1 Lane 2 Lanes 3 Lanes ... or % Capacity	Minor Major Long

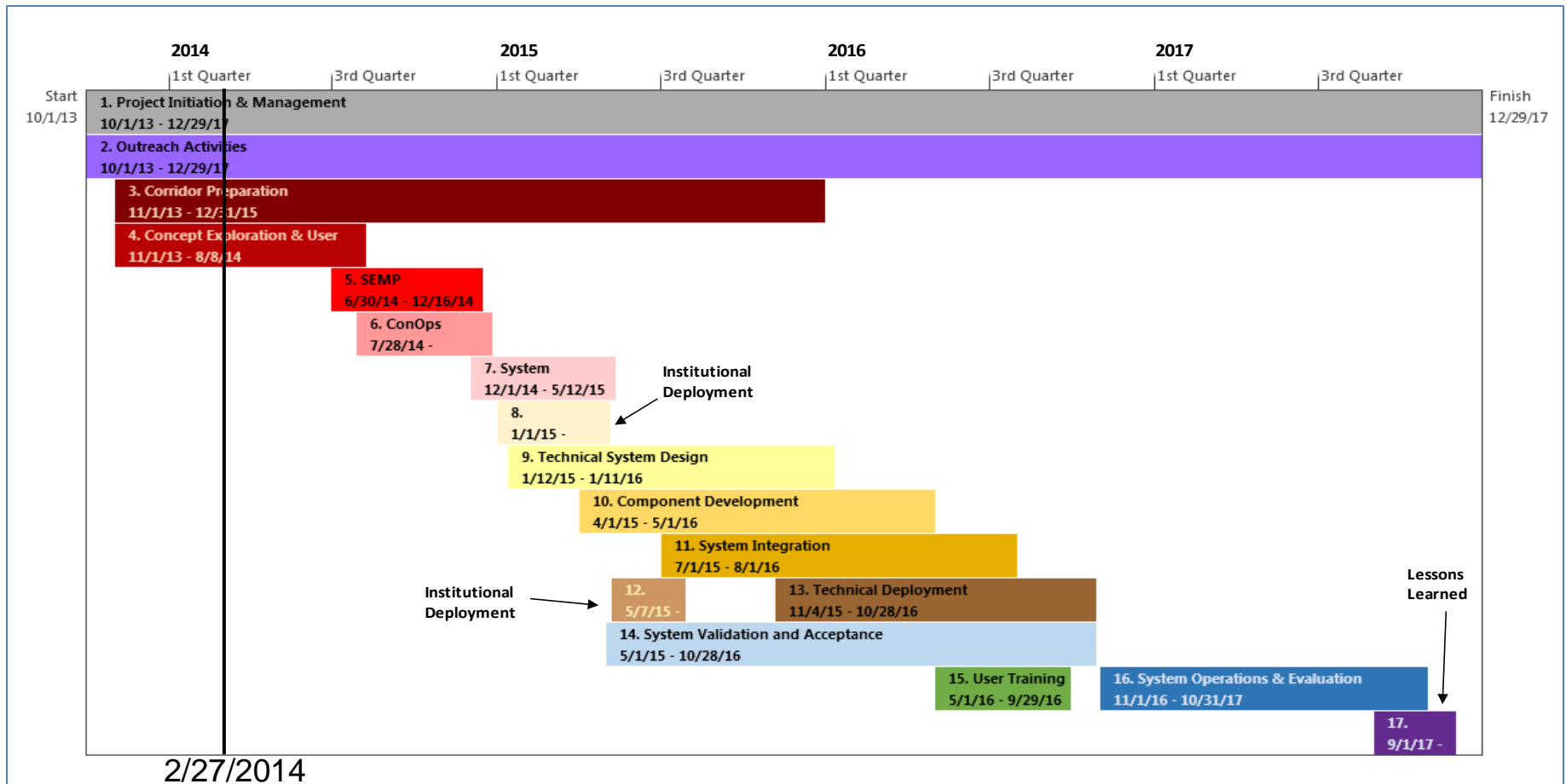
## □ Develop response strategies to defined incident categories

- ▣ Develop multiple response options (play book of 3-5 options, from low impact to high impact) for each category or type of incident
- ▣ Develop process for best option selection (modeling, analysis, testing, etc.)
- ▣ Download selected response option to all integrated ATMS/TCS



# Project Milestone Schedule

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# Communications & Outreach

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- Initial and technical meetings with Pasadena, Arcadia, Monrovia, Duarte and LA County Department of Public Works
- User Needs Workshop held on February 27<sup>th</sup>
- Presentations to several LA Metro subcommittees in March
- Public Announcement/Launch meetings are just starting (first meeting was March 12); soft launch in summer 2014 via a Webinar Series
- Presentation to Supervisor Antonovich's Transportation Committee on March 12<sup>th</sup>
- Meeting with San Gabriel Valley Council of Governments on March 18
- Meeting with CHP on April 22<sup>nd</sup>, meeting with SCAG on April 23<sup>rd</sup>
- City Council, Technical Advisory Committee, and/or City Manager meeting to be determined
- Meetings to be scheduled with Metro bus/rail, Foothill Transit, SCAG



# I-210 Pilot Project Goals

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- ❑ **Bring together corridor stakeholders** to create an environment for mutual cooperation, including sharing knowledge, developing working pilots, and researching and resolving key issues
- ❑ **Formulate a roadmap** for the cost-effective implementation of future innovations
- ❑ Develop and deploy an integrated, **advanced decision support system** for use by the stakeholders as they actively manage the corridor
- ❑ Develop a **set of performance measures** to quantify the successes of the Connected Corridors pilot project
- ❑ **Demonstrate project effectiveness** that can lead to additional phases and funding for more advanced tools and capabilities
- ❑ Develop a pilot system that **can be replicated** on other corridors and be a model for other corridors in the state and country

# Next Steps/Summary

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- ❑ **How can Connected Corridors and the CHP work together?**
  - ▣ Incorporate incident response (CHP, FSP, TMT) into planning for the pilot on I-210
  - ▣ Keep the public informed
  - ▣ Other
- ❑ **Additional Presentations to the CHP and other first responders**
- ❑ **CHP participation**
- ❑ **CHP resource needs**