SM 101 MANAGED LANES PROJECT

US 101

Caltrans

San Mateo County Transportation Authority

C/CAG

Presentation for CMEQ Committee – June 26, 2017

INTRODUCTION

- **The Problem**
- **The Express Lane Option**
- **The Project Specifics**
- **The Environmental Process**
- **What's ahead**

BIG PICTURE

The problem is greater than one project can solve.

- **The Caltrain Electrification Project will not fully address projected demand**
- **SAMTRANS is studying express bus service on the 101 corridor**
- **VTA is in final design to create a 2+ HOV Express Lanes from south of 85 to the San Mateo County line**
- **SFCTA is studying an extension of the 101 managed lanes into San Francisco**
- **MTC is planning to improve and increase Park and Ride lots**
- **Municipalities implementing TDM measures**

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THE PROBLEM

- Jobs, housing and population growth continue
- Vehicle trips to grow 4-7% by 2020
- No incentive to share a ride
- Cars avoid the freeway

The congestion on 101 has been bad and will continue to get worse.

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THE BACKUPS

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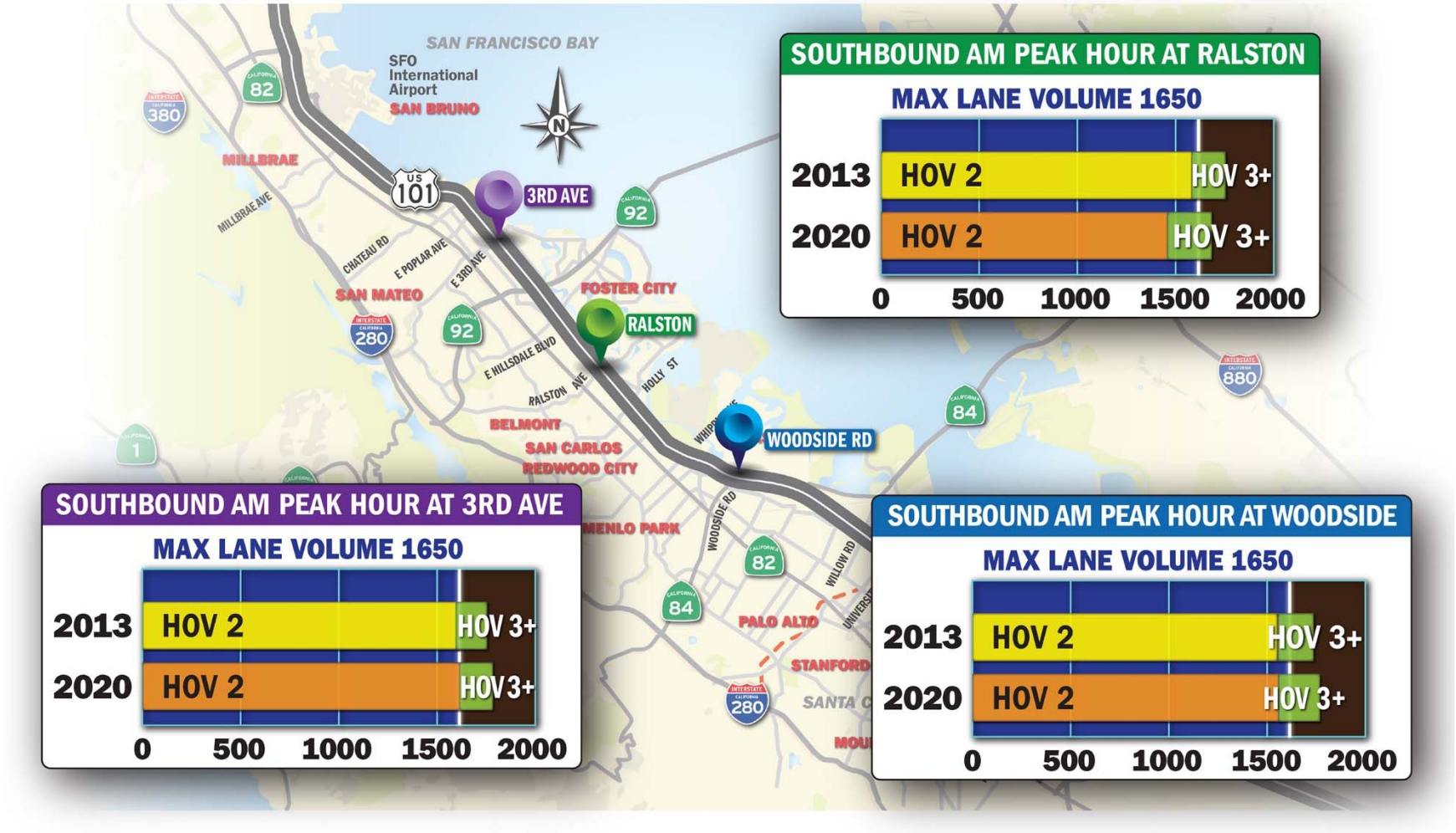
101 Southbound AM HOVs



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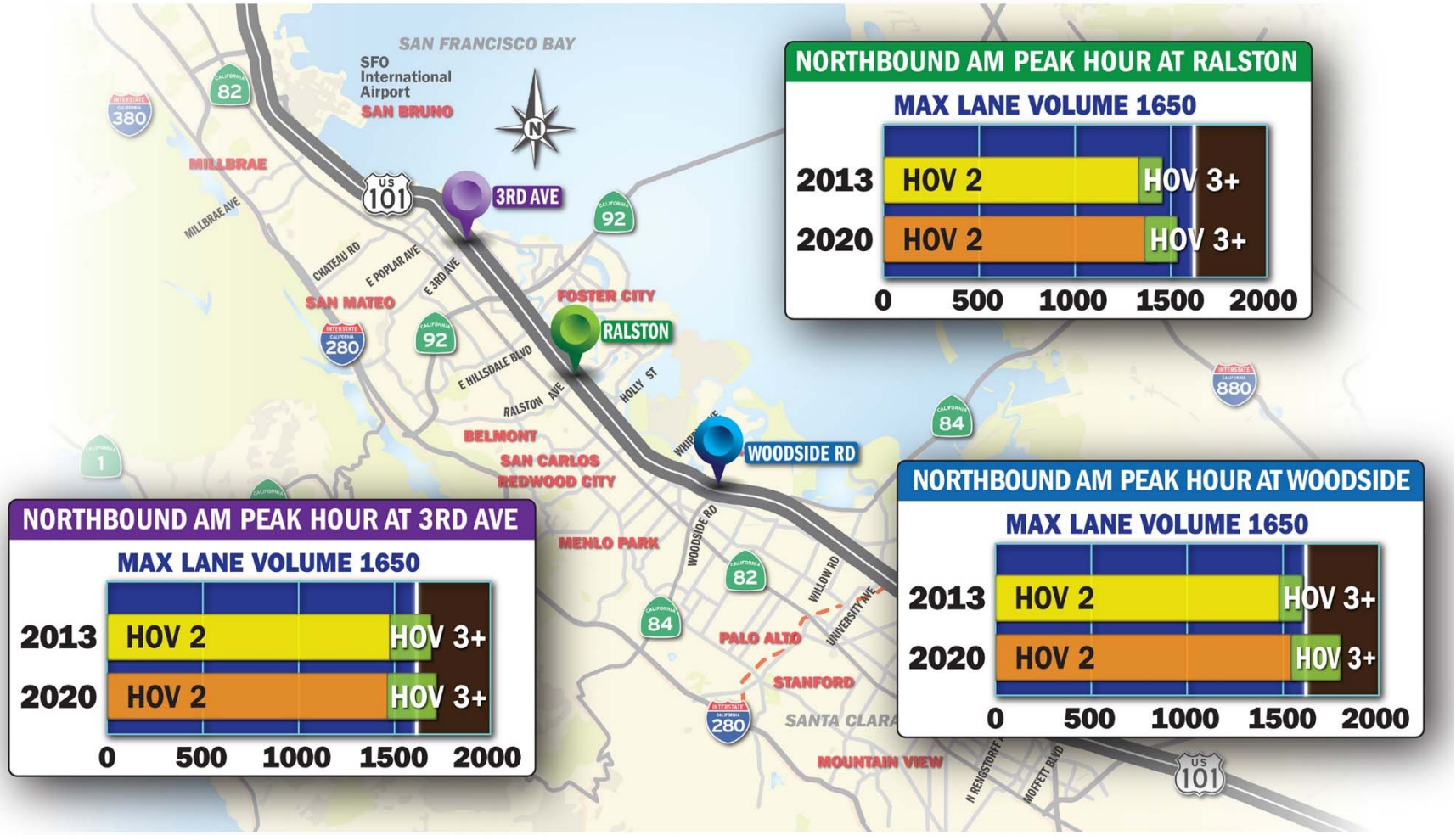
101 Northbound AM HOVs



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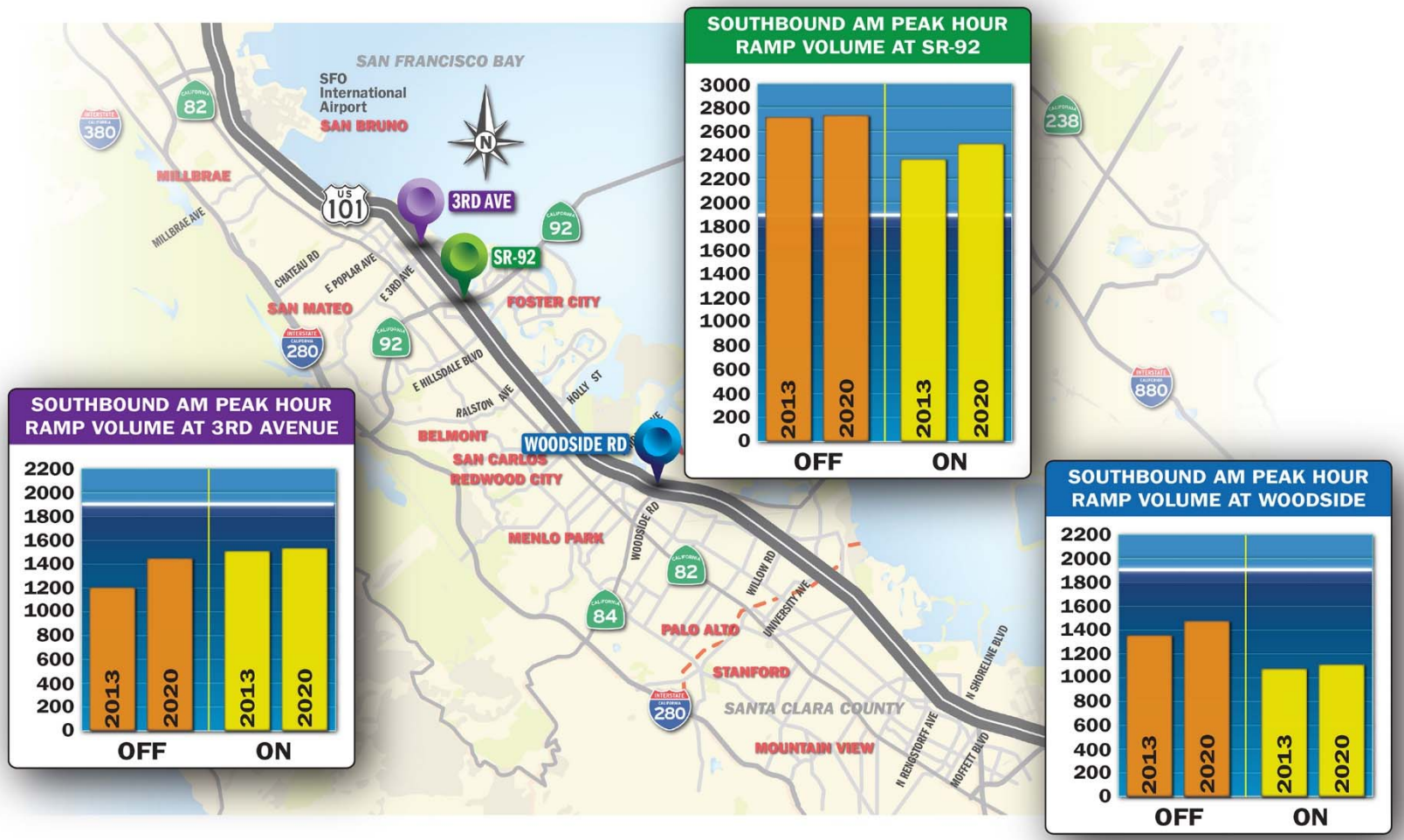
101 Southbound AM RAMPS



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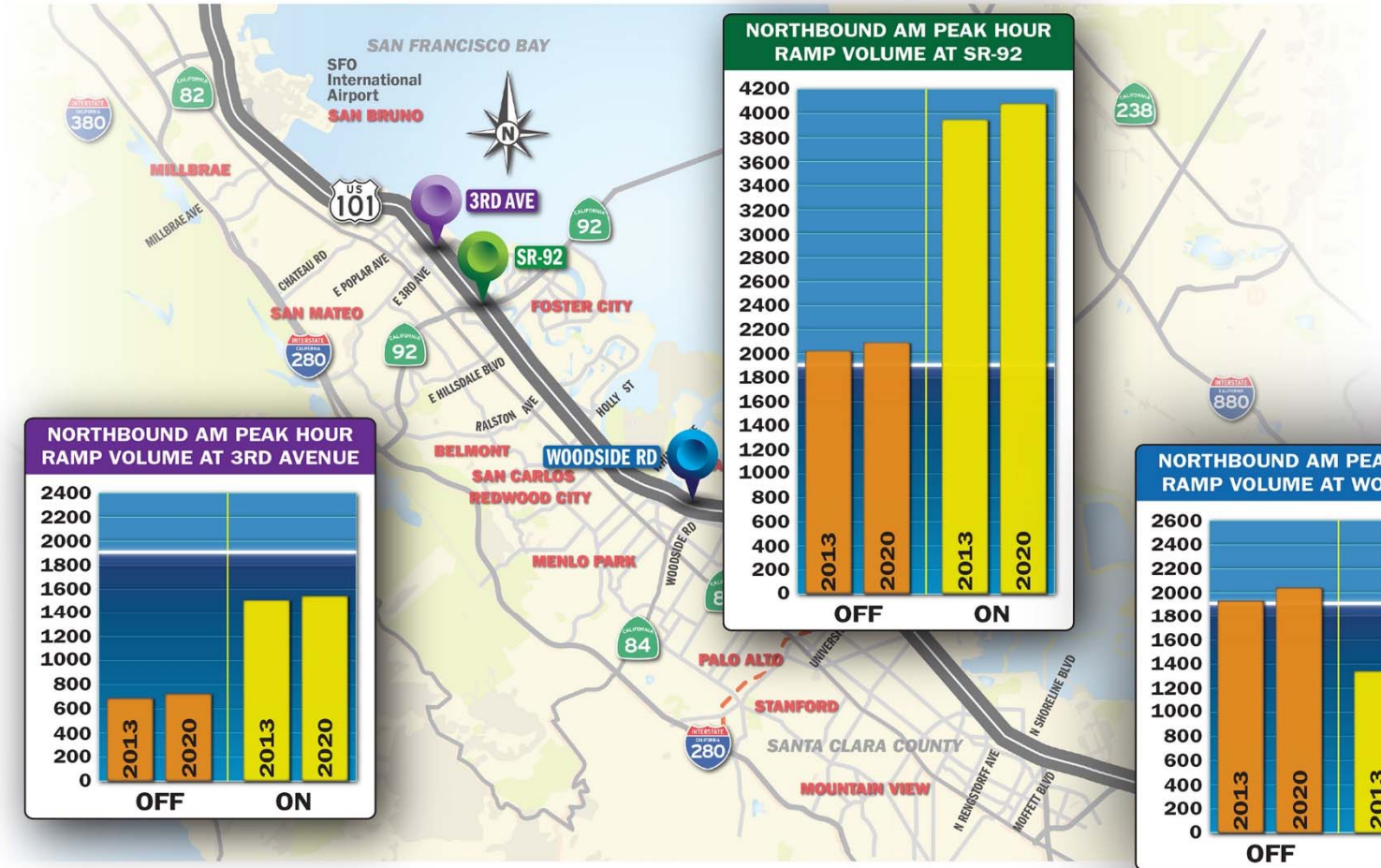
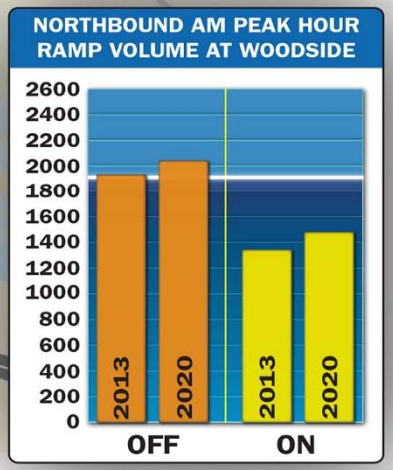
101 Northbound AM RAMPS





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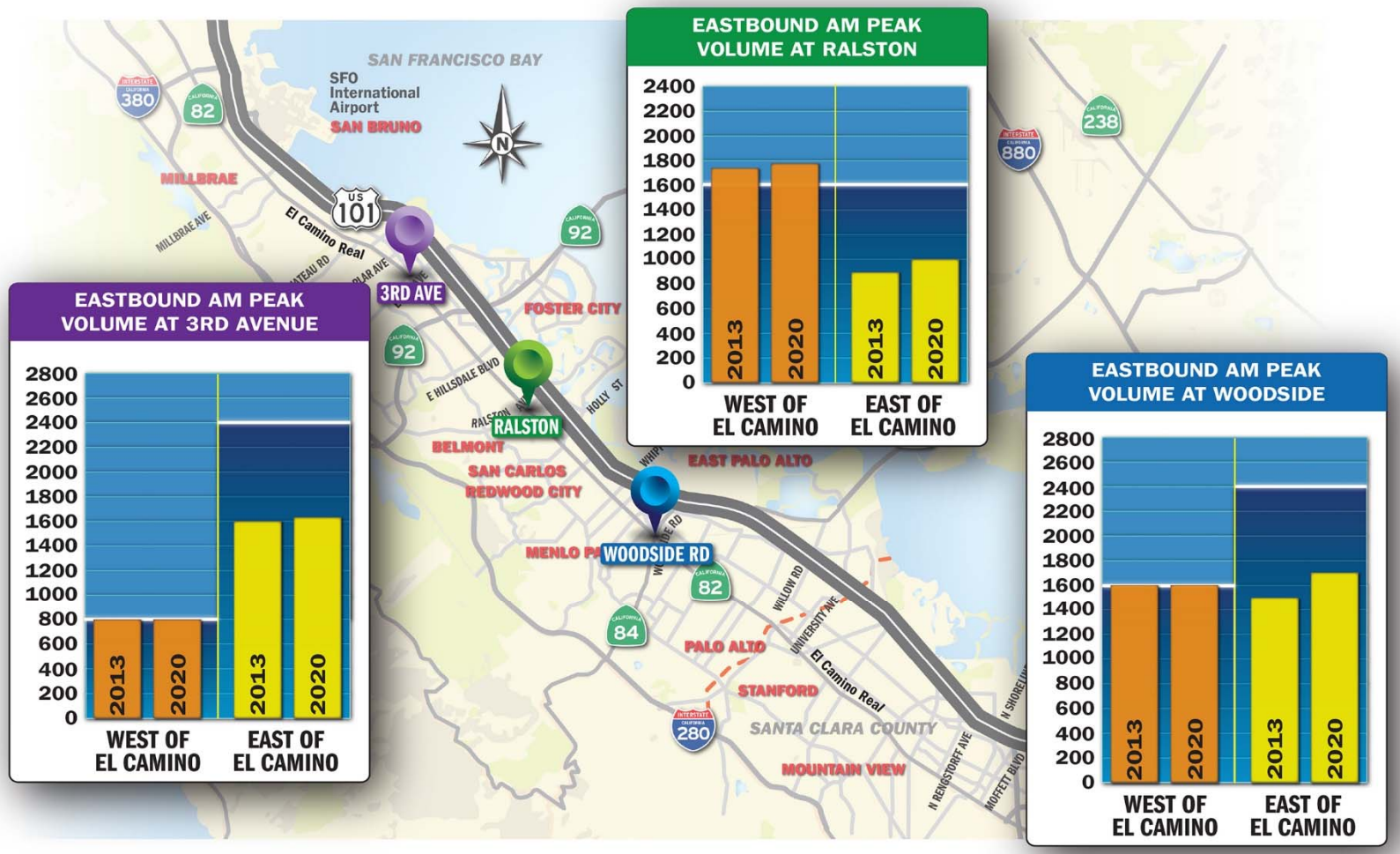
CROSS CONNECTOR TRAFFIC



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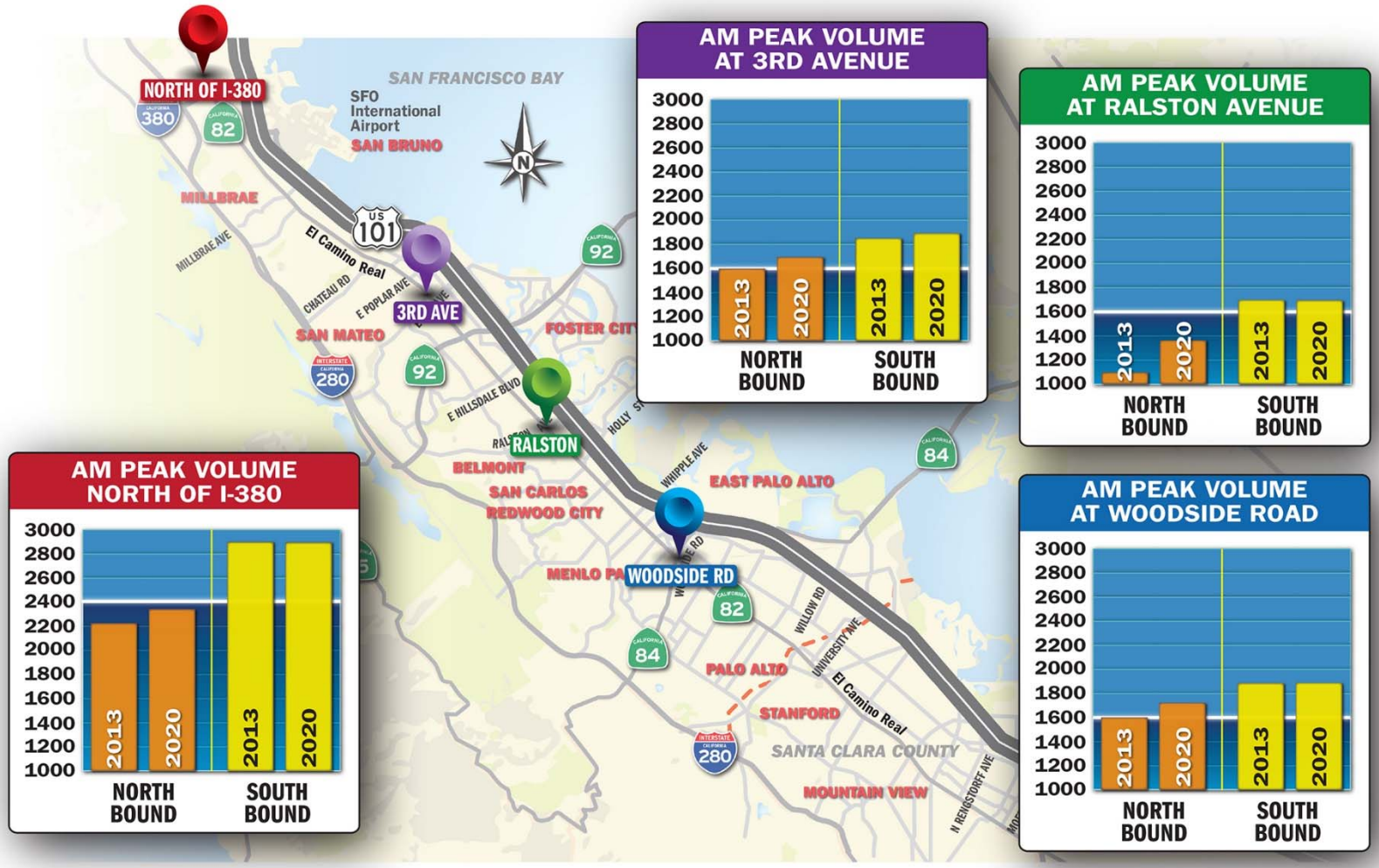
EL CAMINO TRAFFIC



THE CHALLENGE OVERALL

- **Find a solution quickly**
- **Secure public and political support of the Project**
- **Secure the required funding**
- **Minimize environmental impacts**
- **Stay within the current Right of Way as much as possible**
- **Don’t make congestion worse in the other lanes**
- **Reduce commute trips on the local street network**
- **Build the project as soon as possible**

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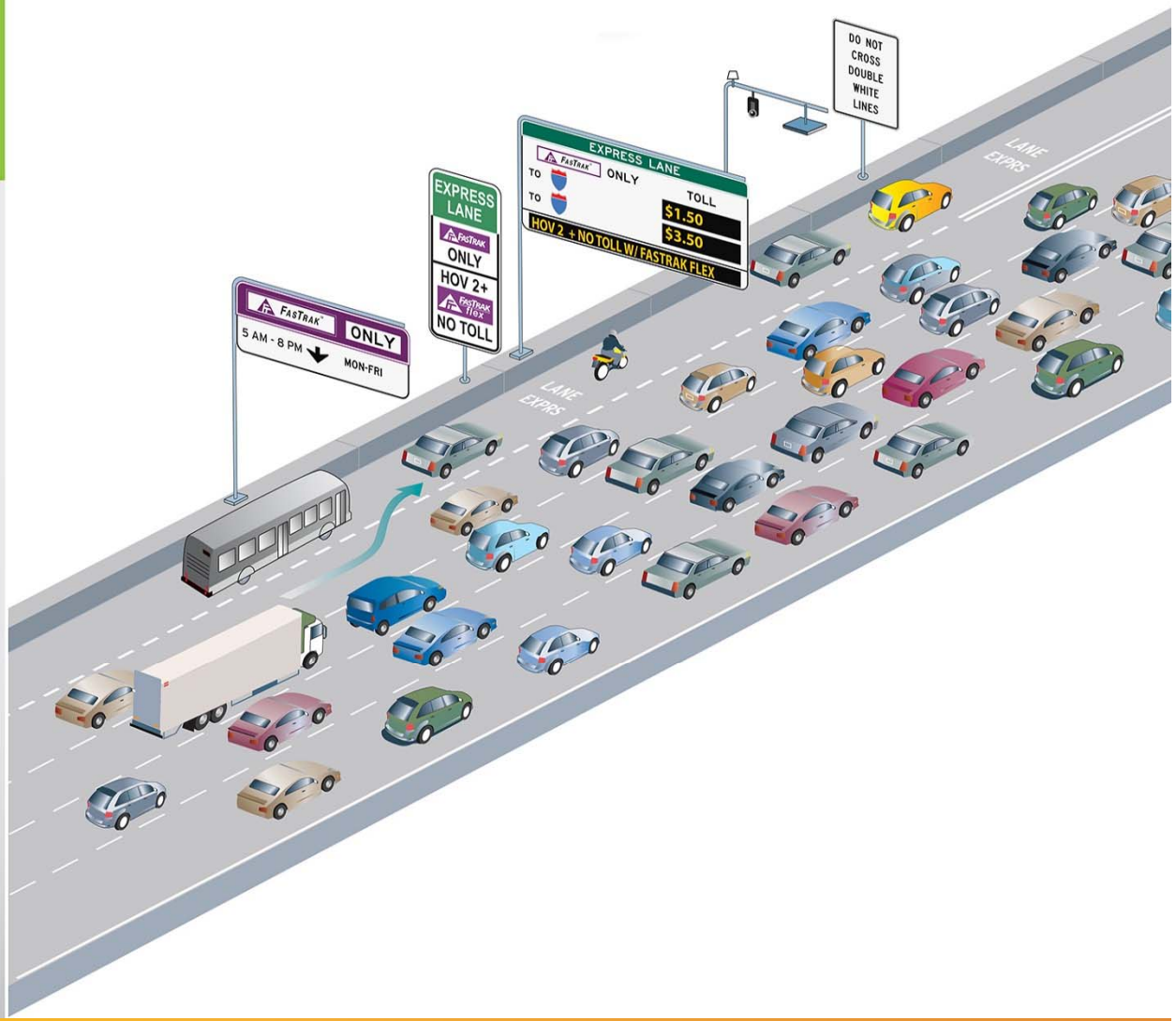
HOW AN EXPRESS LANE OPERATES

WHAT IS AN EXPRESS LANE?

- Carpools, buses, motorcycles and eligible clean air vehicles free
- Other drivers can choose to pay
- Electronic toll collection
- Dynamic tolls (congestion pricing) keep lane free flowing



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TOLLING SIGN

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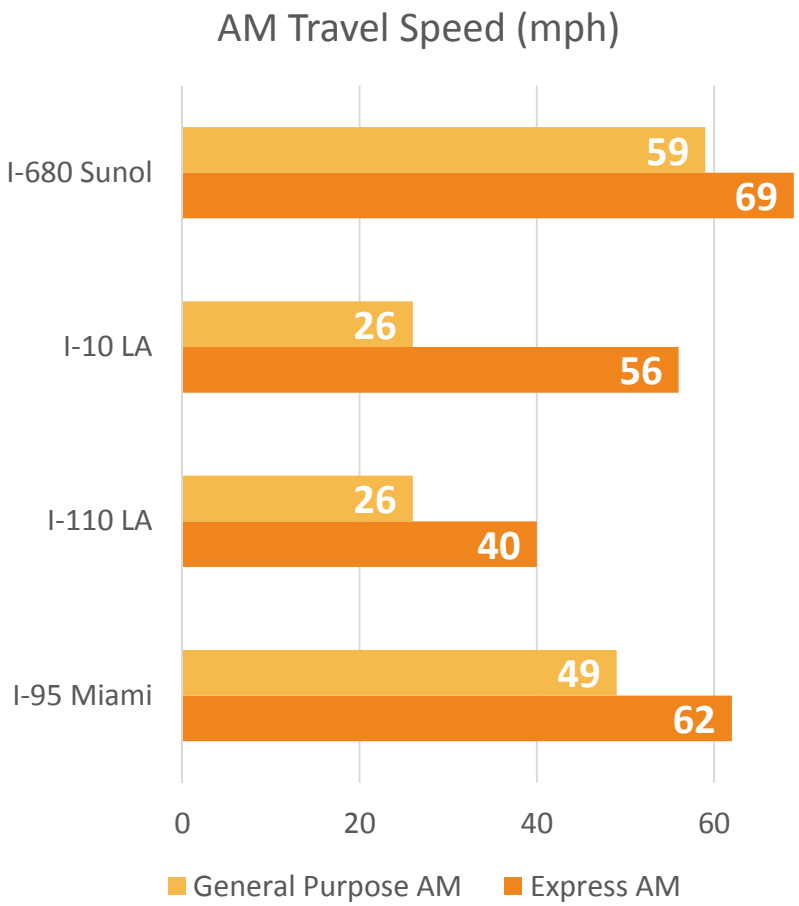
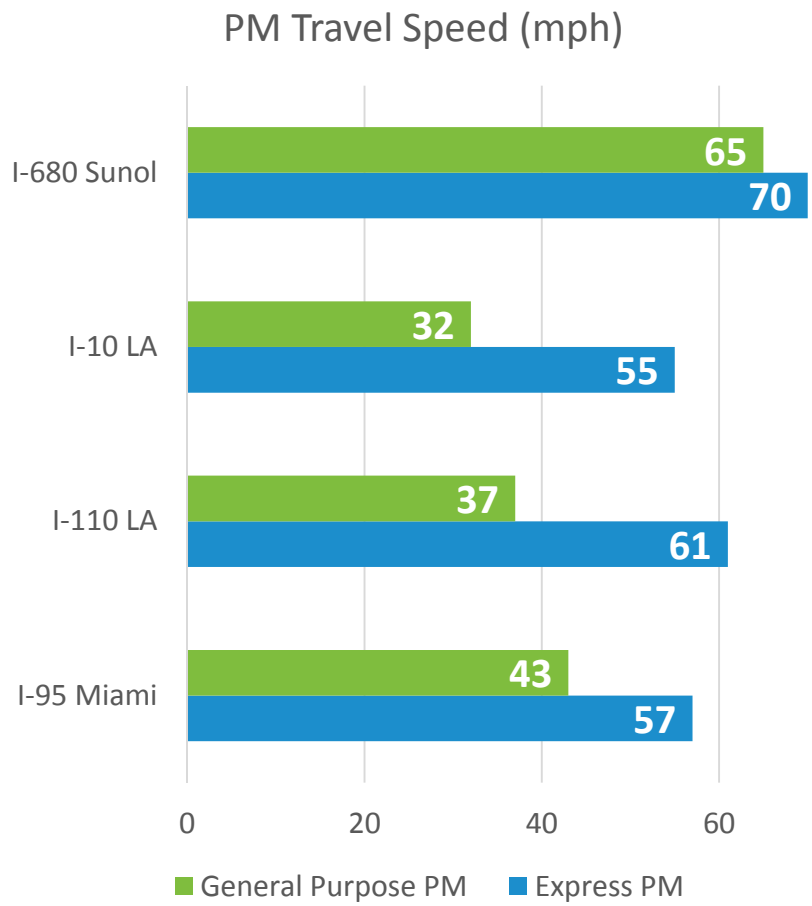
HOW A TOLL IS PAID

Fastrak® Requirement

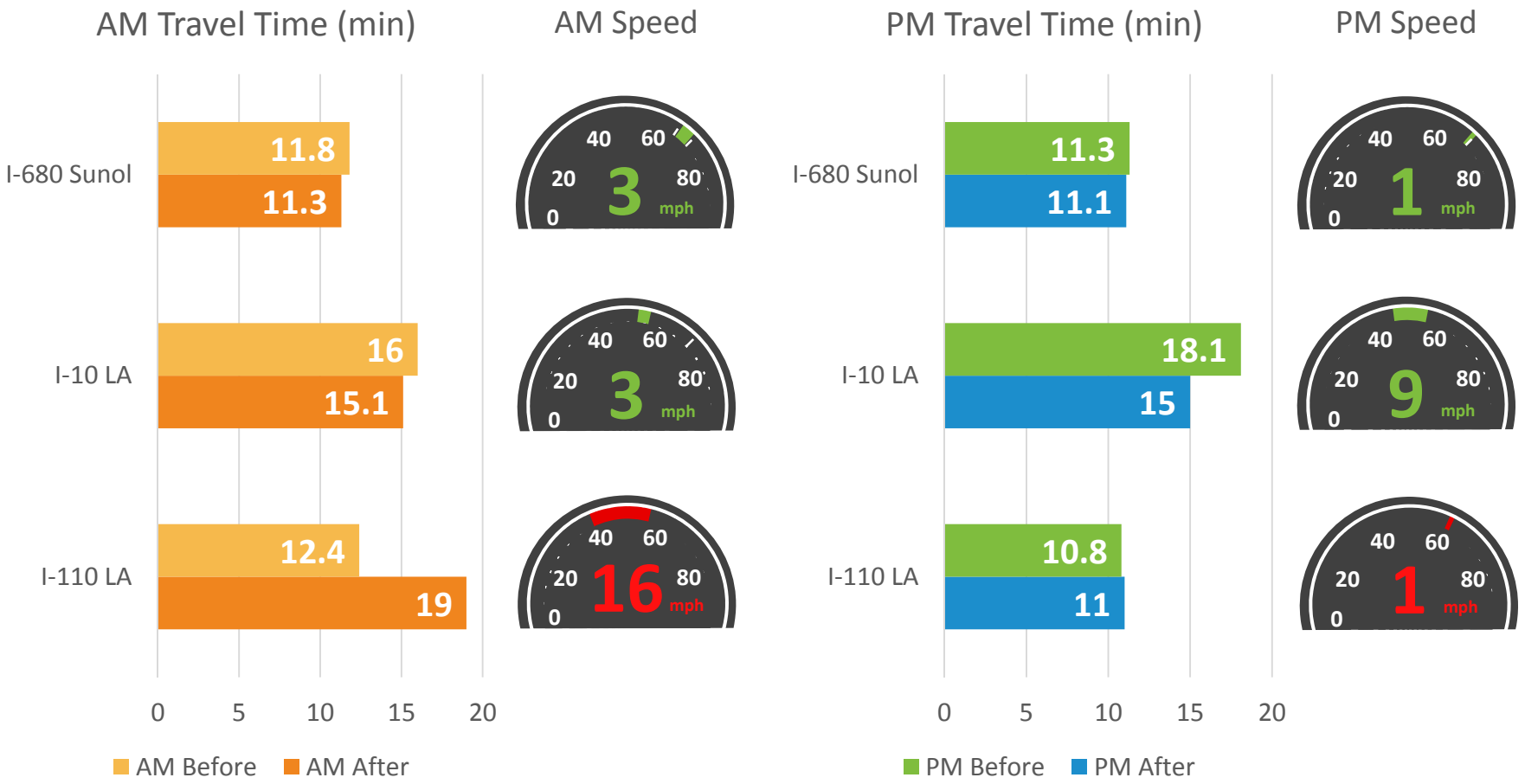
- Tolls must be paid with Fastrak
- Toll free travel for carpools, buses, vanpools, motorcycles and eligible clean air vehicles, with Fastrak Flex

EXPRESS LANE ADVANTAGE





HOV/EXPRESS LANE IMPROVEMENT



INTEGRATED PROJECT TEAM

C/CAG City/County Association of Governments of San Mateo County

SAN MATEO COUNTY Transportation Authority

Caltrans

Environmental Lead Agency

Co-Sponsor Agencies

Integrated Project Delivery Team

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THE PROJECT LIMITS

PROJECT PURPOSE

- **Reduce congestion in the corridor**
- **Encourage carpooling and transit use**
- **Provide managed lanes for travel-time reliability**
- **Minimize operational degradation of the general purpose lanes**
- **Increase person throughput**
- **Apply technology and/or design features to help manage traffic**

- **Alternative 1: No project**
- **Alternative 2: Modify existing auxiliary lanes to make a new through lane from Whipple Avenue to I-380; convert median lane to an HOV lane for HOV 2+**
- **Alternative 3: Convert the existing median lane to an HOV 3+ Express Lane**
- **Alternative 4: Modify existing auxiliary lanes to make a new through lane from Whipple Avenue to l-380; convert median lane to an HOV 3+ Express Lane**

PRELIMINARY DESIGN CONSIDERATIONS

- **Auxiliary lane replacement** – Removal of Aux lanes sometimes impacts local street circulation and needs to be replaced to prevent negative impacts.
- **Right of Way** – In replacing Aux lanes, the team is minimizing right of way impacts by utilizing design exceptions, shifting alignments, and working with cities.
- **Environmentally sensitive areas** – The team identifies sensitive areas early and is working to reduce impacts.
- **Relocation of existing sound walls** – Design team is working with impacted Cities to minimize issues associated with sound walls.

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LANE CONFIGURATION A

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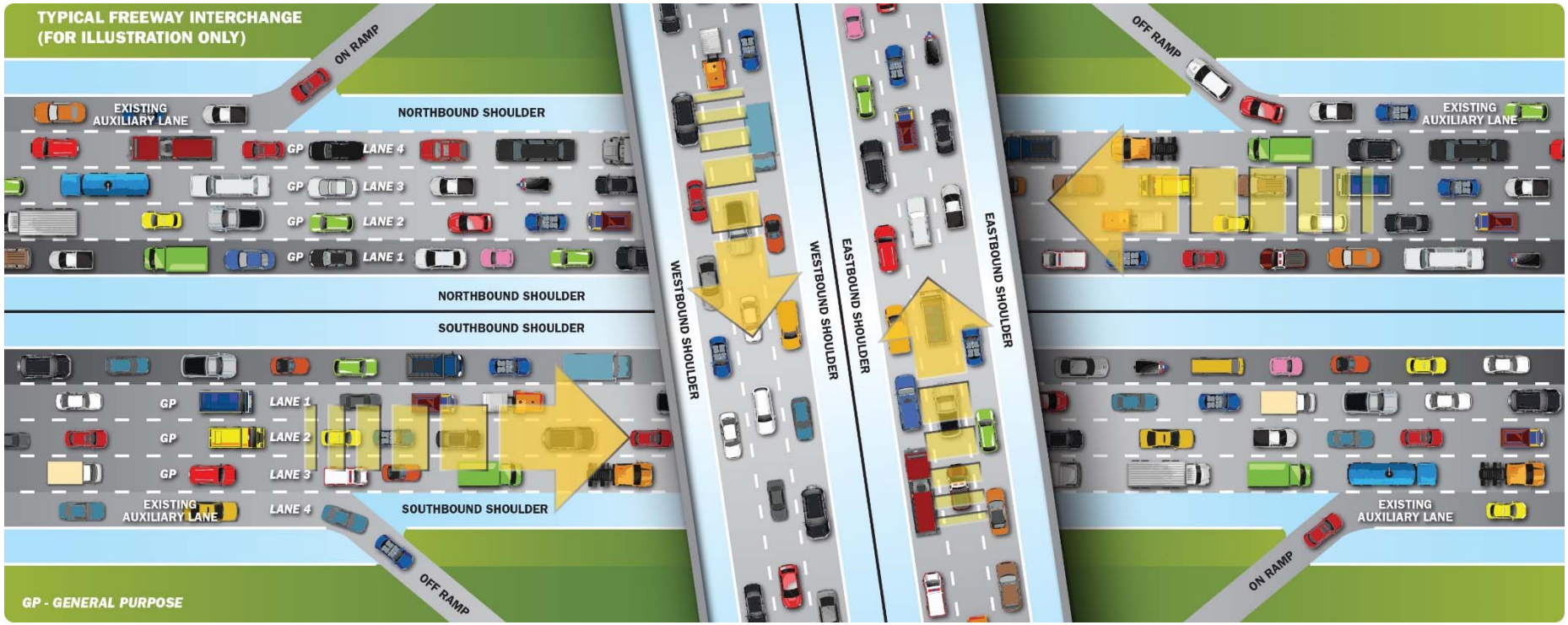
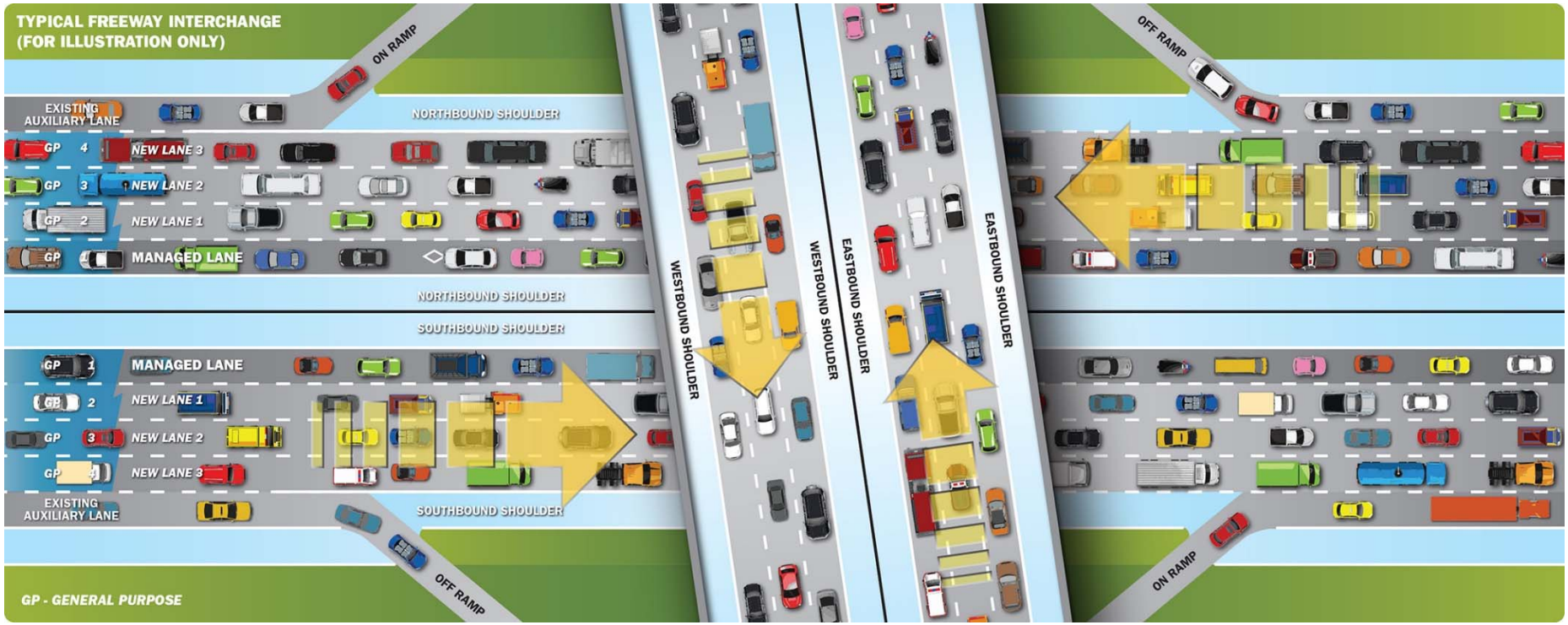
Existing Conditions / No Build



Merged Lane in Converted No. 1 Lane



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LANE CONFIGURATION C

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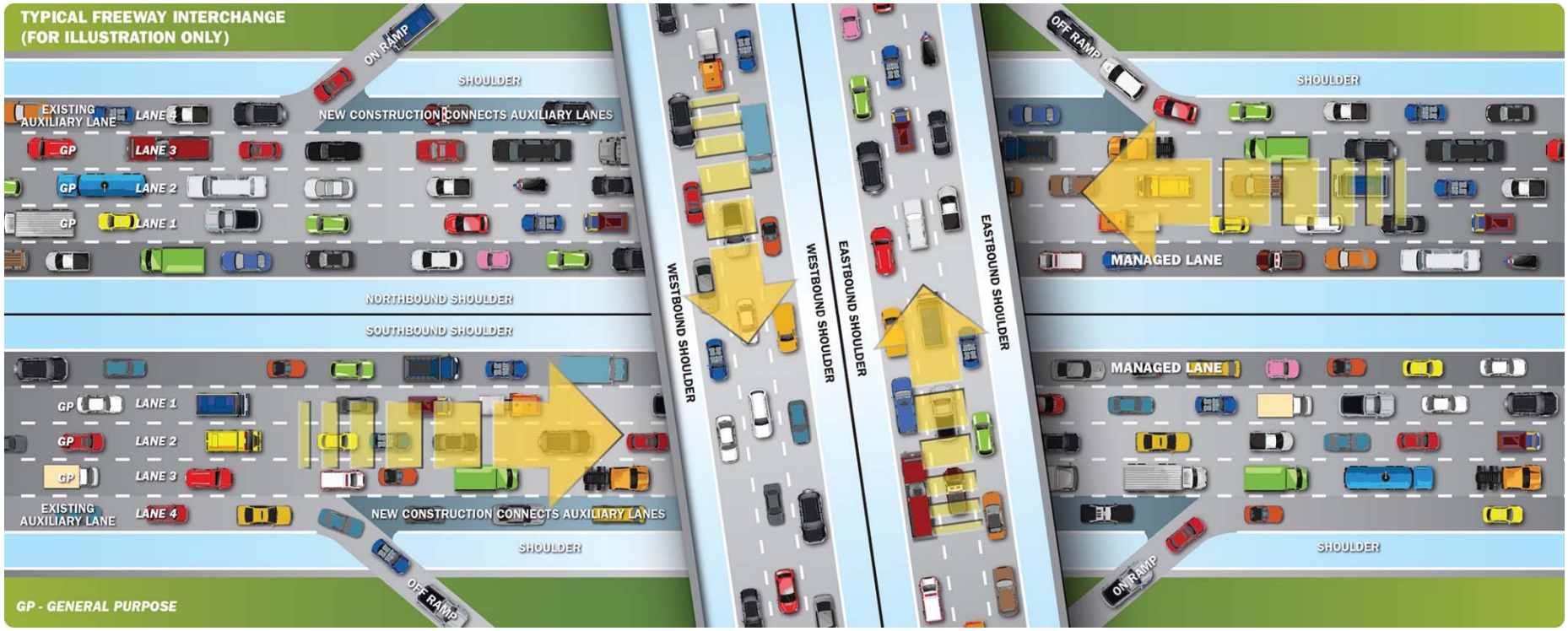
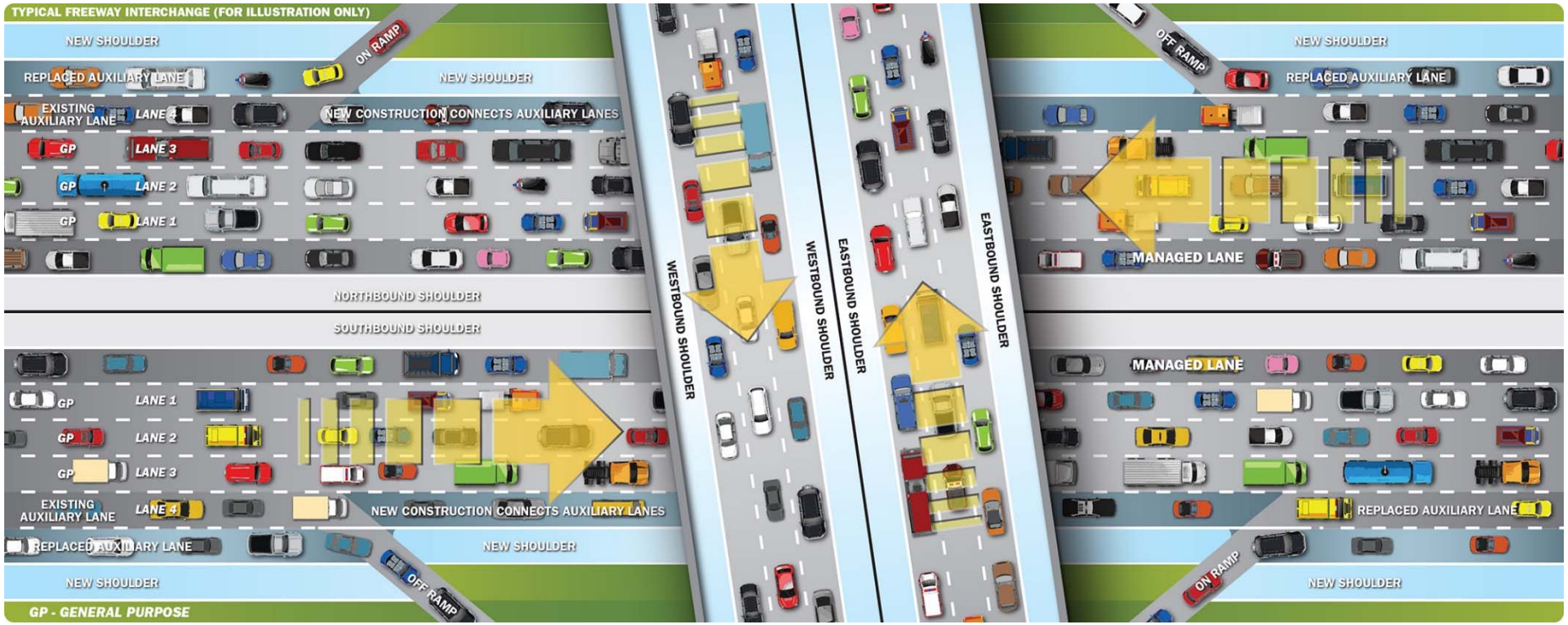
Managed Lane with Converted Auxiliary Lanes



LANE CONFIGURATION D

Managed Lane with Converted Auxiliary Lanes and Auxiliary Lane Replaced



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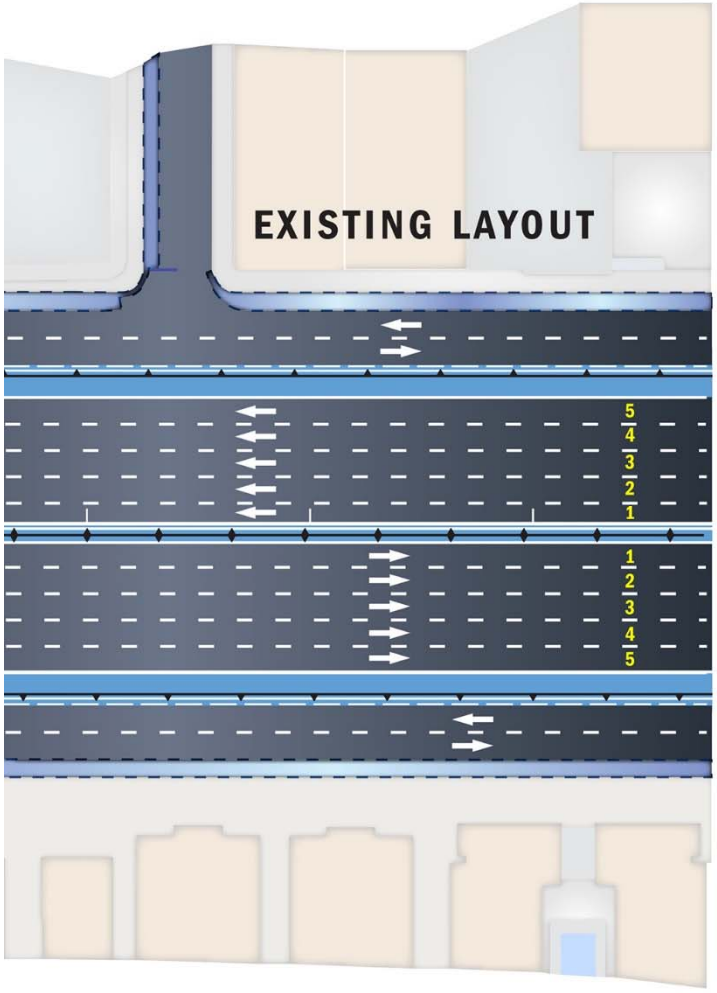
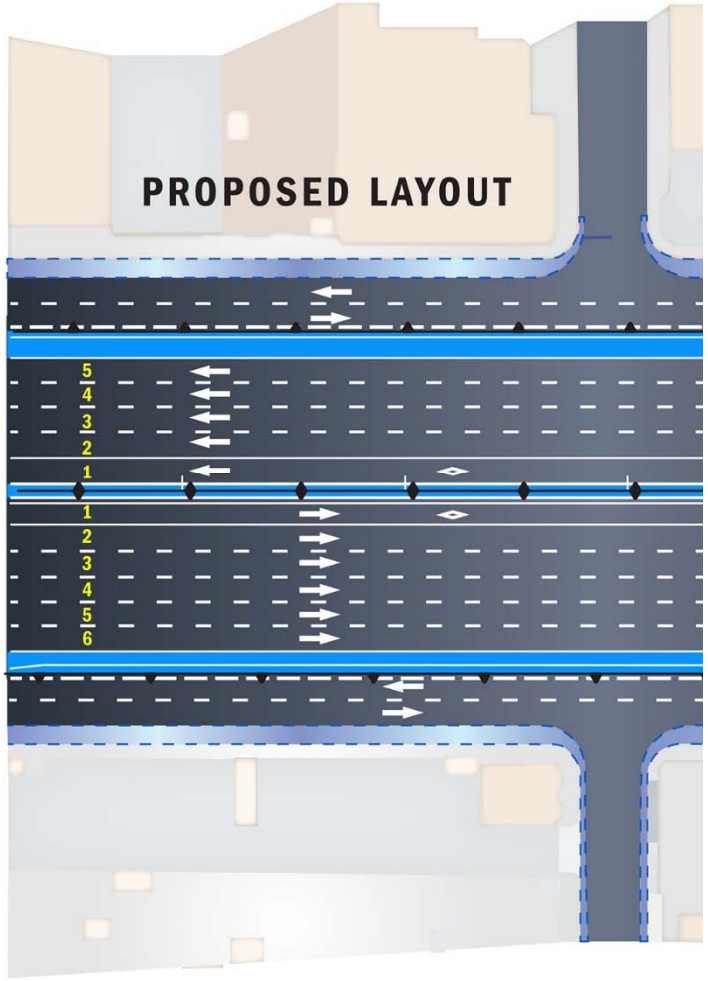
AERIAL VIEW OF LANE SHIFT





CHALLENGES WITH THE ALTERNATIVES

- **Alternative 2: There is currently a high volume of 2-person carpools (HOVs) along with Clean Air Vehicles and HOV violators**
- **Alternative 3: There is no additional capacity to accommodate growth, so it is estimated to only work if a significant amount of people change their travel behavior.**
- **Alternative 4: Transitions into and out of the Santa Clara and San Francisco facilities must be carefully coordinated with VTA and SFCTA.**

TECHNICAL STUDIES

Air Quality (incl. Climate Change)	Biological Environment (incl. Habitats and Vegetation)
Cultural Resources	Noise and Vibration
Community Impact Assessment (incl. Environmental Justice)	Visual Impact Assessment
Energy Study	Hazardous Materials
Water Quality and Hydrology (incl. Floodplain and Sea Level Rise)	Traffic and Transportation
Geology and Soils (incl. Seismicity)	

KEY SELECTION CRITERIA

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- **Vehicle hours of delay:** How many hours each car sits in traffic
- **Change in travel times:** How long it takes to get from point A to point B
- **Person throughput:** How many people can we move through point A on the way to point B
- **Vehicle miles travelled:** How many miles a vehicle travels in a specific time period (could mean reduced vehicle travel or could also mean gridlock)

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FUNDING & COORDINATION

- **$11.5m for Environmental Clearance – This funding is secured (SMCTA, SAMCEDA)**
- **$9.5m for Preliminary Design– Partially funded to start the early stage of the design phase (Federal Earmark).**
- **Funding to complete Design and go to Construction is not secured.**
- **Continued coordination with SAMTRANS, Caltrain and cities**

FUTURE POLICY CONSIDERATIONS

The following policy questions have to be answered in the future.

- **Which agency will operate these lanes?**
- **Should this lane open as a 2+ HOV or 3+ HOV Express Lane?**
- **If it opens as a 3+ HOV Express should 2-person HOVs get a discount?**
- **What should be the hours of tolling?**
- **Tolling generally changes based on congestion. What should be the frequency and increment of change?**
- **How should excess (revenue beyond operations and maintenance cost) revenue be directed?**

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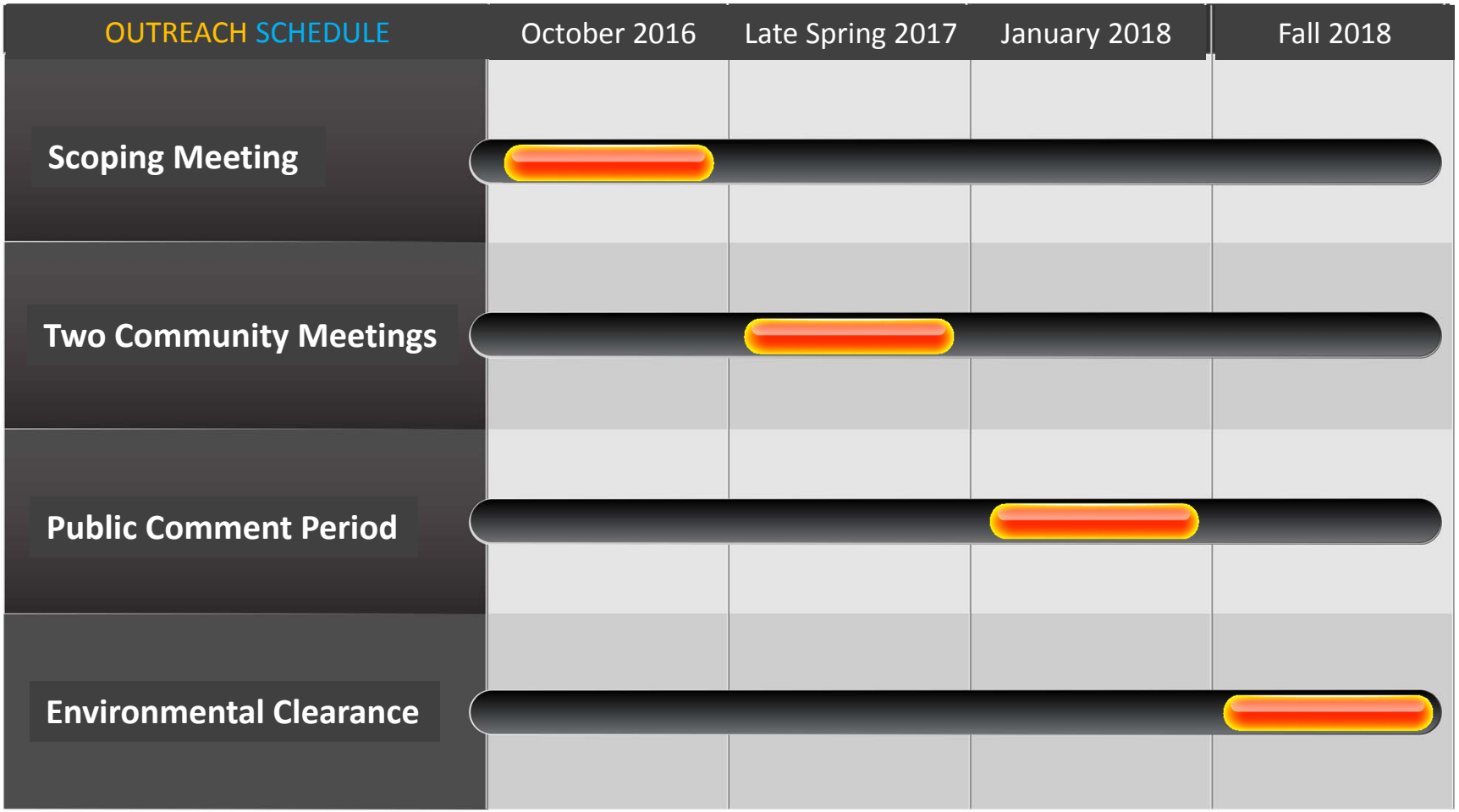
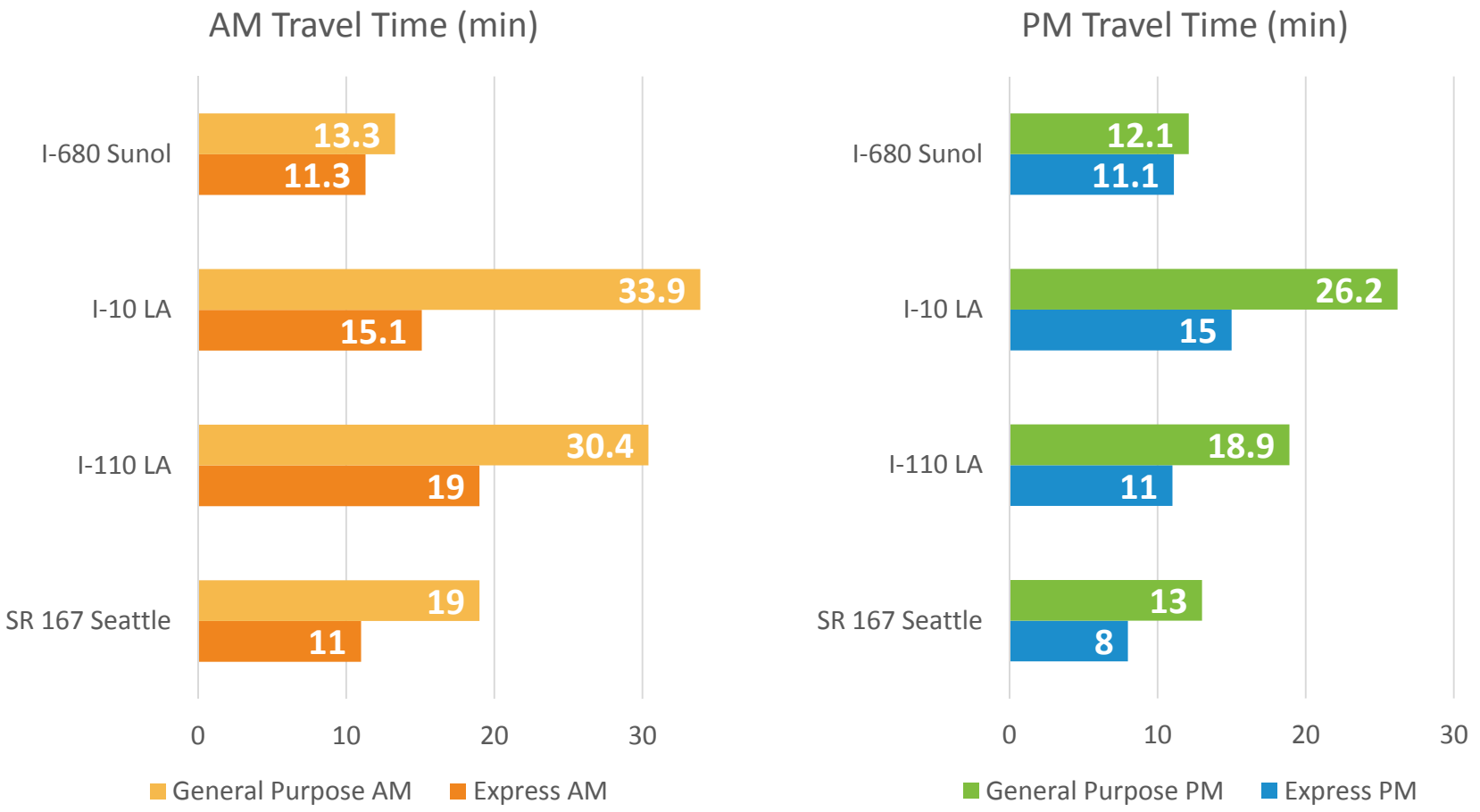
PUBLIC ENGAGEMENT SCHEDULE



www.dot.ca.gov/d4/
101managedlanes

EXPRESS LANE ADVANTAGE



GENERAL PURPOSE LANE IMPROVEMENT