

SR 710 North Study

Technical Advisory Committee Meeting No. 12 – September 11, 2013

Stakeholder Outreach Advisory Committee Meeting No. 8– September 12, 2013



Agenda

- Public Outreach Update
- Update on Parts 2 and 3 – Project Report and Environmental Studies Documentation
 - Recap of TAC No. 11 and SOAC No. 7
 - Update on Preliminary Engineering
 - Update on Environmental Technical Studies
 - Next Steps

Ground Rules

- Q&A after each section of the presentation
- Focus questions on information presented
- General comments and Q&A at the end

Public Outreach Update



Summary of Outreach Activities – July – September 2013

Continue structured outreach activities to engage stakeholders throughout the study area

- Elected Officials
- City Councils
- One-on-One Briefings
- Roundtable Discussions
- Community-Specific Information Sessions
- Community Events
- Interviews with Media
- Social Media Engagement
- Educational Institutions (student outreach) - CSULA, ELAC, PCC and CalTech

July 2013 *All Communities Convening* Information Sessions Recap

- El Sereno
- Pasadena
- Monterey Park
- Estimated 400 Participants
- Meeting format allowed for Q & A



Feedback Received During July ACC Information Sessions

TSM/TDM

- Need for additional bicycle lanes
- Include TSM/TDM with LRT alternative
- Ensure pedestrian friendly street improvements

Feedback Received (cont.)

Bus Rapid Transit

- Concern regarding potential parking impacts
- Encourage use of electric vehicles
- Will not address regional congestion
- Greater frequency of service required
- Ridership vs. Metro Rapid 762 bus service
- Include exclusive bus lanes with BRT
- Combine with LRT alternative

Feedback Received (cont.)

Light Rail Transit

- Concerns regarding elevated configuration in East Los Angeles
- Explore P3 options for LRT alternative
- Tunnel safety
- Tunnel ventilation
- Construction impacts
 - Excavated material
 - Valley Fever

Feedback Received (cont.)

Freeway Tunnel

- Lack of intermediate exits/entrances
- Safety
- Tolls/Public Private Partnerships
- Truck traffic
- Construction impacts
 - Excavated material
 - Valley Fever
- Air Quality
 - Ventilation locations
 - Exhaust treatment

Update on Parts 2 and 3 - Project Report and Environmental Studies Documentation



Recap of TAC No. 11 and SOAC No. 7

- Public Outreach Update
- Recap of TAC No. 10 and SOAC No. 6
- Update on Parts 2 and 3 – Project Report and Environmental Studies Documentation
 - Update on each build alternative
- Next Steps

Feedback Received During TAC No. 11/ SOAC No. 7

- How will exclusive lanes in Monterey Park affect businesses in that area?
- Details on which TSM elements were removed for excessive impacts
- Consider right-of-way impacts on a case by case basis
- Evaluate BRT performance, if exclusive lanes are provided throughout
- Evaluate air quality and health risk assessment for the study area
- Will the trucks carrying hazardous material be screened at portals?

Feedback Received During TAC No. 11/ SOAC No. 7 (cont.)

- Traffic impacts for no build scenario should be highlighted
- Minimize number of transfers required to encourage transit usage
- Pasadena did not want connections to St. John Avenue and Pasadena Avenue to and from tunnel
- Explain proposed reversible lane on Fair Oaks. Will this design remove median?
- Would single bore tunnel include traffic and air quality analyses?
- Would you be performing cumulative analysis for air quality and other factors?
- Discuss Value Analysis Study findings

Fact Checks



Freeway Tunnel and LRT Alternatives

Claim – Construction of a tunnel would expose people to Valley Fever.

Fact – Exposure to Valley Fever is shown to be a low risk in the South Coast Air Basin*, but any construction project in the Basin could result in some increase in the risk for Valley Fever, as a result of any fugitive dust emissions due to grading in the upper 20 cm of native soils. This risk is reduced by implementing standard measures to reduce fugitive dust in compliance with Caltrans and South Coast Air Quality Management District requirements.

* See maps on Center for Disease Control website,
<http://www.cdc.gov/features/valleyfever>

Where are the vehicles coming from for the Freeway Tunnel Alternative?

Segment	ADT	Percentage of Total	AM Peak Period (SB)	Percentage of Total	PM Peak Period (NB)	Percentage of Total
SR 710 Tunnel (8 lanes, no toll)	173,800	100%	16,300	100%	23,900	100%
SR 2	36,500	21%	3,100	19%	5,300	22%
I-5	24,600	14%	1,500	9%	3,500	15%
I-605	8,900	5%	700	4%	1,600	7%
SR 110	15,700	9%	1,800	11%	1,900	8%
I-405	1000	1%	90	1%	70	0%
US 101	400	0%	10	0%	100	0%
All Freeways	87,100	50%	7,200	44%	12,470	52%
Fremont/Fair Oaks Avenue	25,900	15%	1,800	11%	3,200	13%
Huntington Drive	8,700	5%	710	4%	1,400	6%
San Gabriel Boulevard	8,300	5%	730	4%	1,000	4%
Rosemead Boulevard	8,100	5%	640	4%	1,200	5%
Los Robles Ave	6,400	4%	540	3%	990	4%
Eagle Rock Boulevard	2,000	1%	240	1%	220	1%
Other Arterials and Local Streets	27,400	16%	4,500	28%	3,400	14%
All Surface Streets	86,800	50%	9,160	56%	11,410	48%

Update on Parts 2 and 3 – Project Report and Environmental Studies Documentation

- Status update on Preliminary Engineering
- Status update on Environmental Studies Documentation

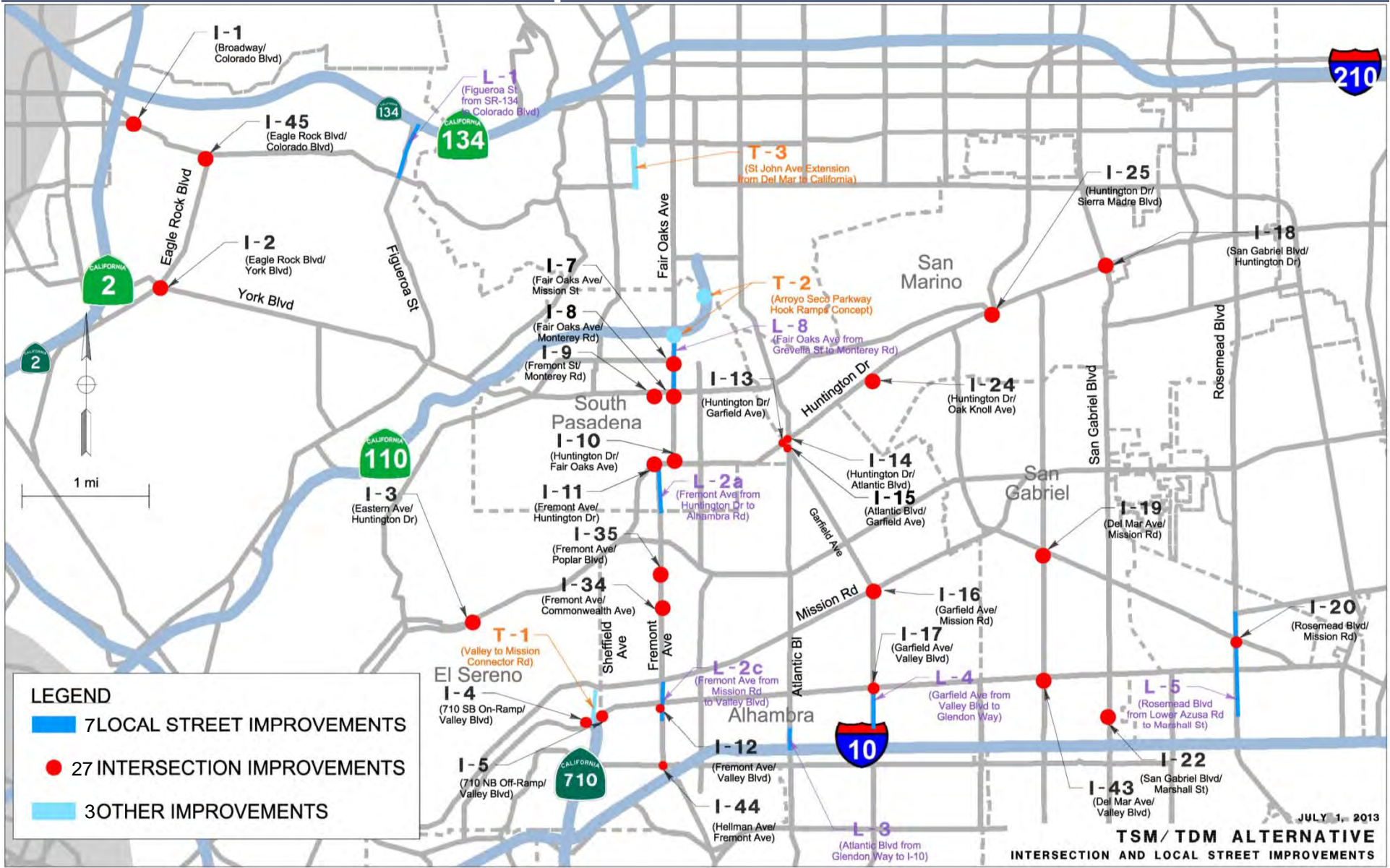
Continue Refinements to Build Alternatives

- Transportation System Management (TSM)/Transportation Demand Management (TDM)
- Bus Rapid Transit (BRT) with TSM/TDM
- Light Rail Transit (LRT) with TSM/TDM
- Freeway Tunnel with TSM/TDM

Alternatives Design Refinements

- Continue to optimize performance
- Coordinate with Environmental Study team
- Reduce potential right-of-way and environmental impacts

TSM - Local Street and Intersection Improvements



Refinements to Light Rail Transit (LRT) Alternative

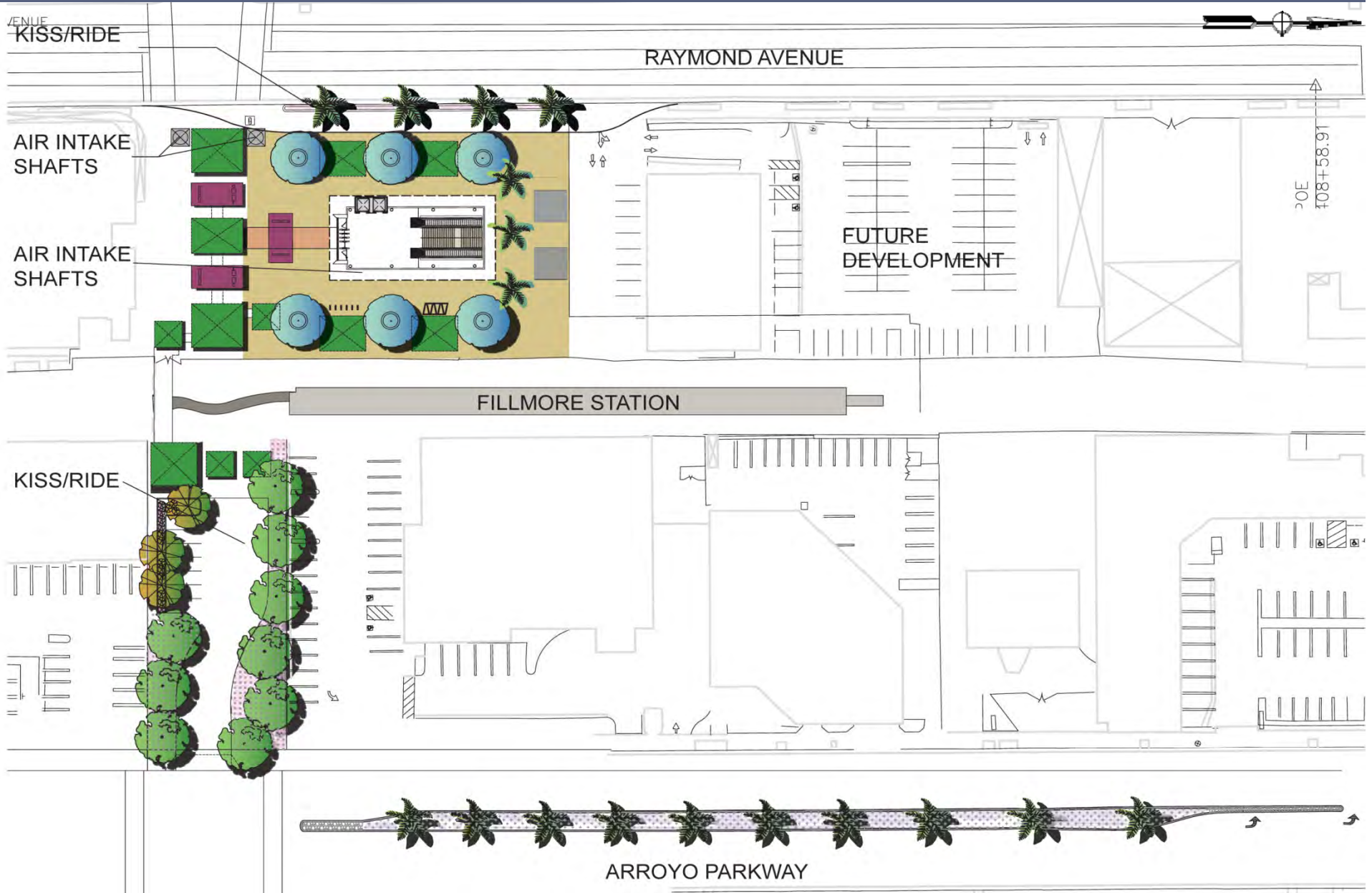
- Continue coordination with fire marshal, first responders, and CHP for tunnel fire, life, safety and ventilation design elements
- Refinements to crossing at Valley Boulevard
- Considering refinements in the southerly portion of the alignment

Update to LRT Alternative at Valley Boulevard



Revised maintenance yard for better operations by providing a larger bridge over Valley Boulevard

LRT – Fillmore Station (Typical)



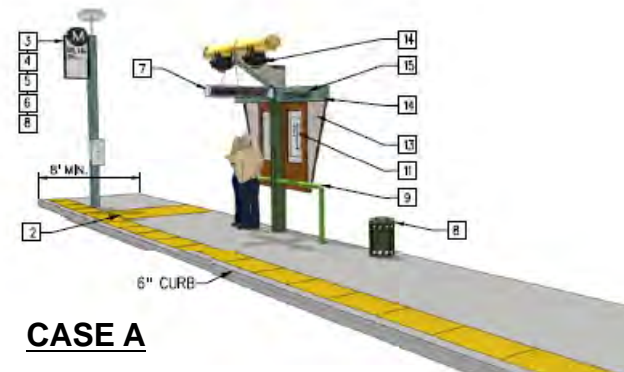
BRT Alternative Refinements

- Continued refinements for bus lanes to limit effects on parking
- Beginning to develop stormwater management, and landscaping concepts
- Developed 3 typical station concepts
- Conducted comparison of bus lane concepts

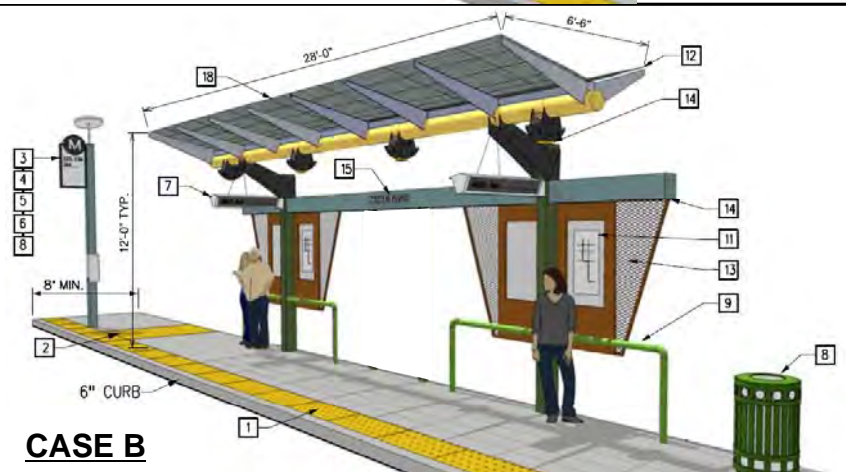
Prototype BRT Station Concepts

- 3 Station concepts developed to fit demand levels or available sidewalk widths

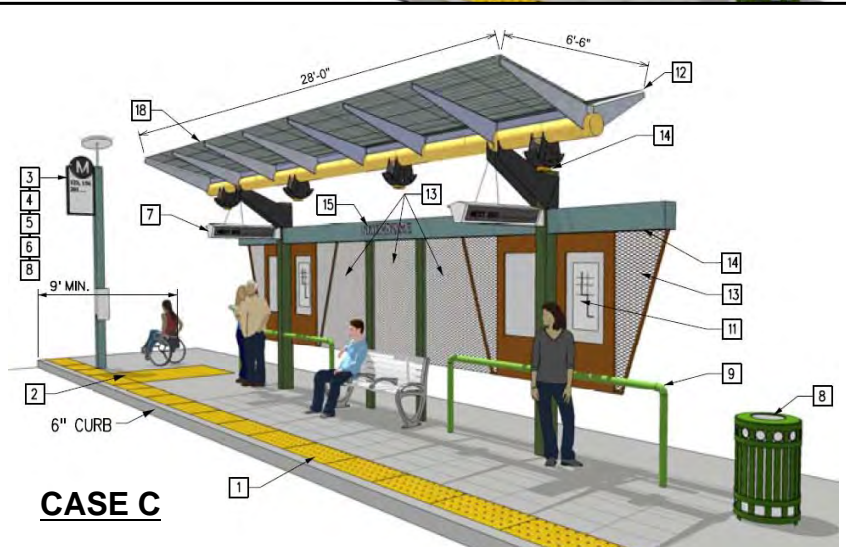
Item No.	Amenities	Item No.	Amenities
1	Warning Strip/Truncated Domes	10	Bench Only
2	8' x 5' Min. Front Door Loading	11	Route Map
3	Bus Stop Sign (BRT Only) with Braille Sign	12	Canopy
4	Bus Stop Sign with Braille Sign & Information Locator	13	Wind Screen
5	Bus Waiting Signal With Braille sign	14	Lighting
6	Brand Sign	15	Station ID
7	Variable Message Sign (Next Bus Arrival) With Public Address System	16	Way Finding Sign
8	Trash Receptacle	17	Advertising Panel
9	Leaning Rail	18	Solar Power Panels



CASE A

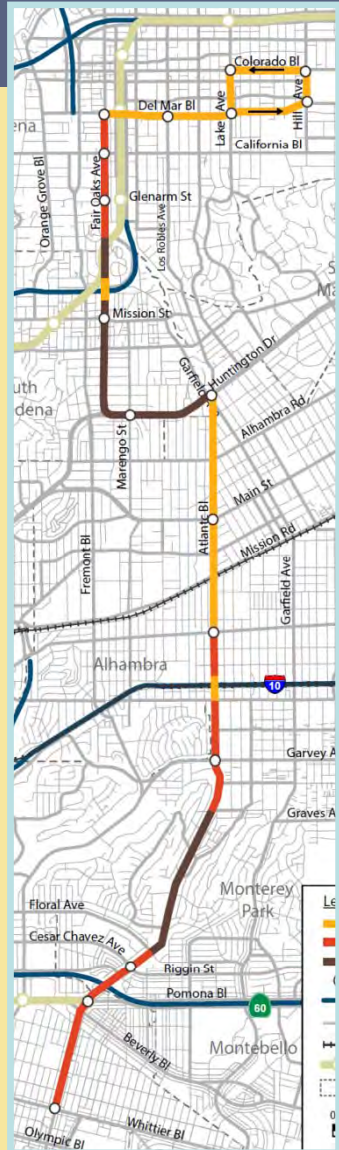


CASE B



CASE C

Questions from TAC No. 11 on BRT Alternative



Question: What are the benefits and effects of continuous two-way bus lanes along the entire route?

BRT Alternative Concept for 710 North Study

➤ Proposed peak-period-only bus lanes

brown 2-way; red 1-way; orange mixed traffic

➤ Route Length:

➤ 10 miles along trunk/spine from Whittier Boulevard to Del Mar Boulevard.

➤ 12 miles total length including half of north loop length

➤ Percent of trunk/spine route with either 1-way or 2-way bus lanes: 75%

Evaluation of Benefits and Effects of Continuous BRT Lanes

➤ Three BRT operations scenarios were studied:

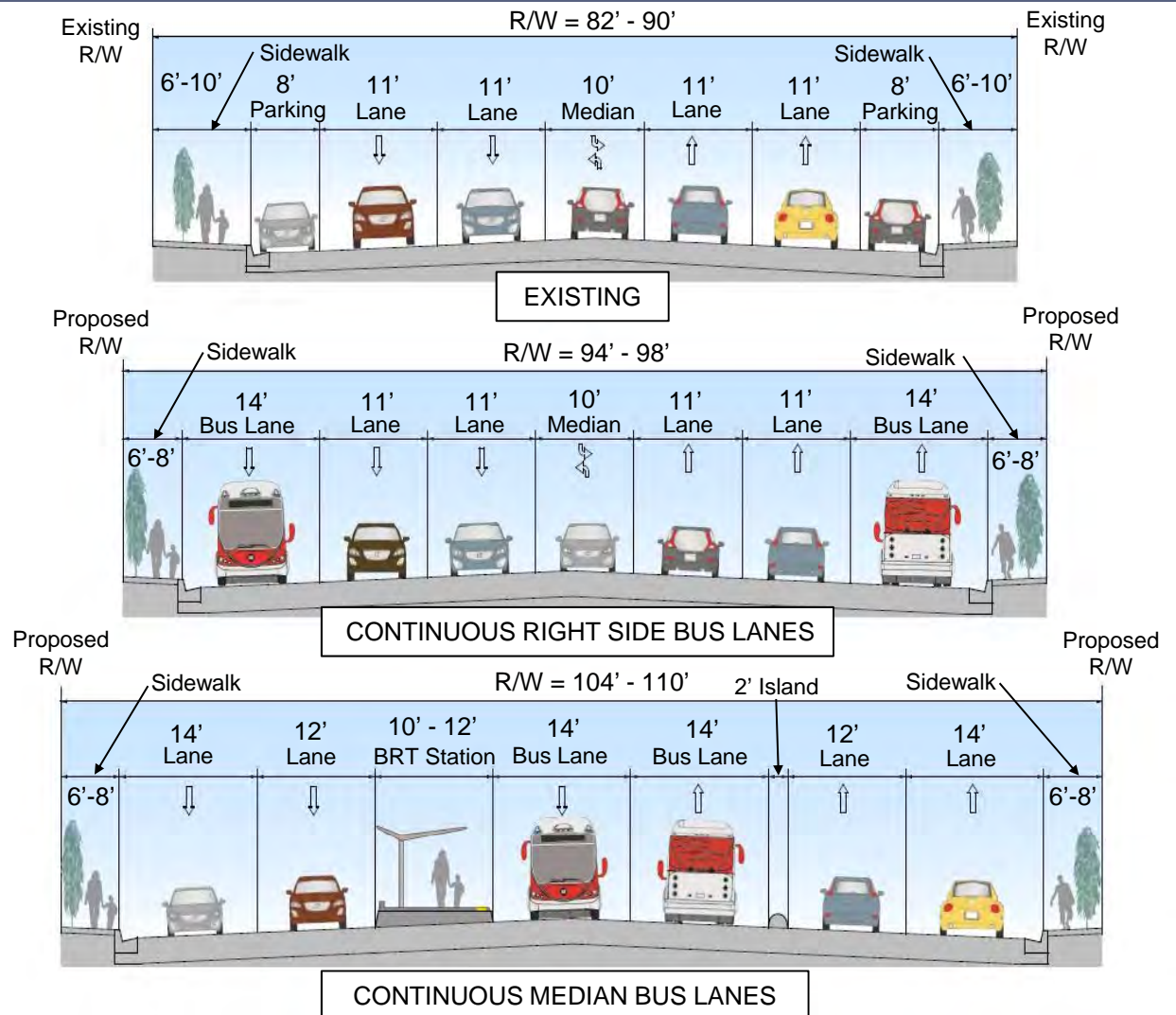
Scenario	Description	Study Year
1	BRT – Alternative (Base Case)	2035
2	BRT – Continuous Right Side Bus Lanes	2035
3	BRT – Continuous Median Bus Lanes on Trunk Line, Continuous Right Side Bus Lanes along North Loop	2035

Questions from TAC No. 11 regarding BRT Alternative

➤ Typical Cross Sections:

- Existing Condition (82-90 feet R/W)
- Continuous Right Side Bus Lanes (94-98 feet R/W)
- Median Bus Lanes with Station (104-110 feet R/W)

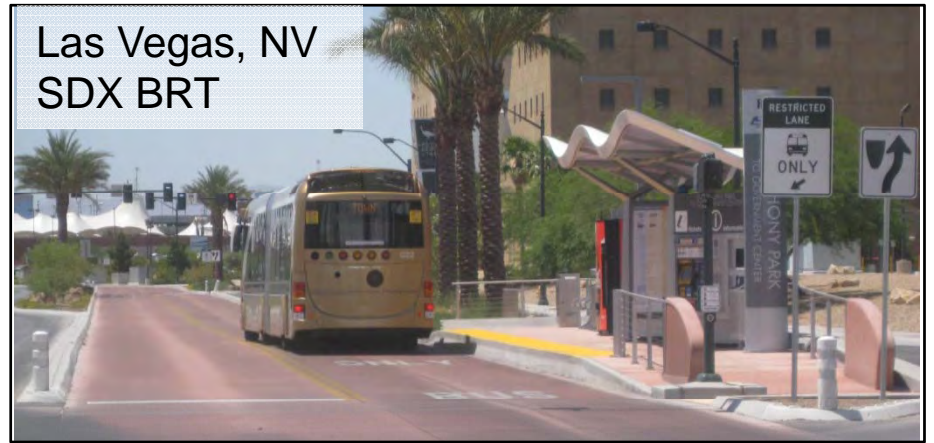
* R/W - Right of Way



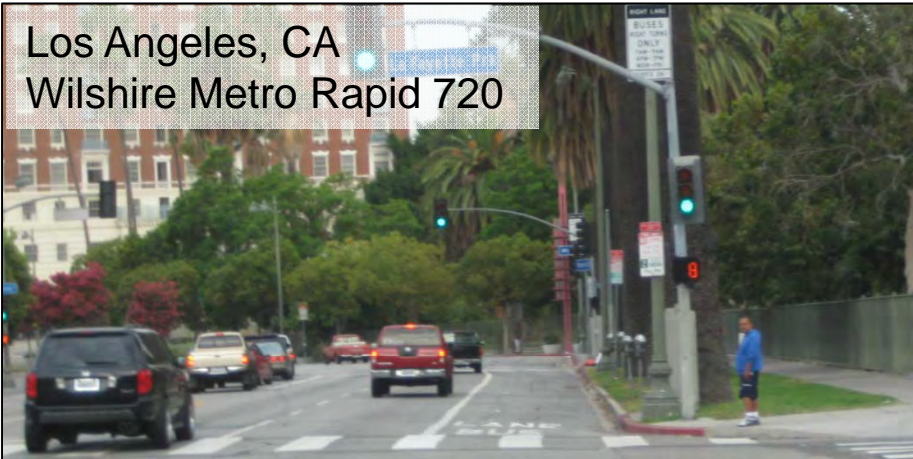
Las Vegas, NV
Boulder Highway BRT



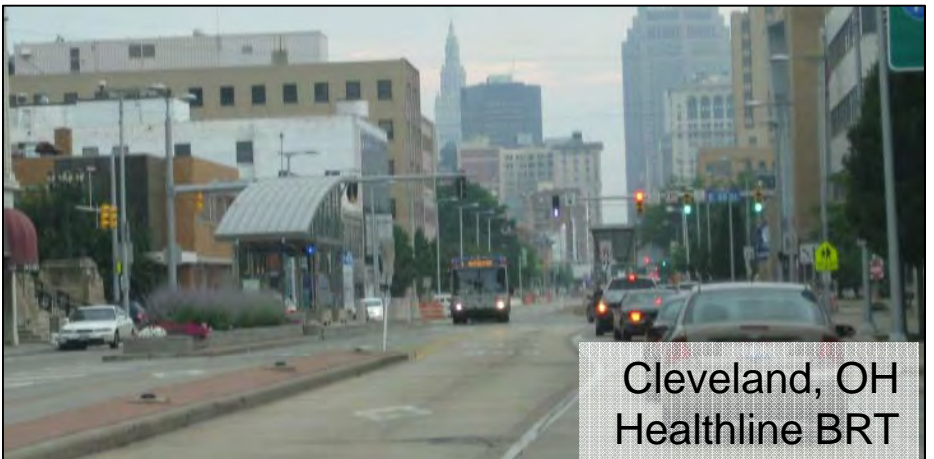
Las Vegas, NV
SDX BRT



Los Angeles, CA
Wilshire Metro Rapid 720



Cleveland, OH
Healthline BRT



Everett, WA
Swift BRT



San Jose, CA
Valley Rapid BRT



Continuous Right Side BRT Bus Lanes

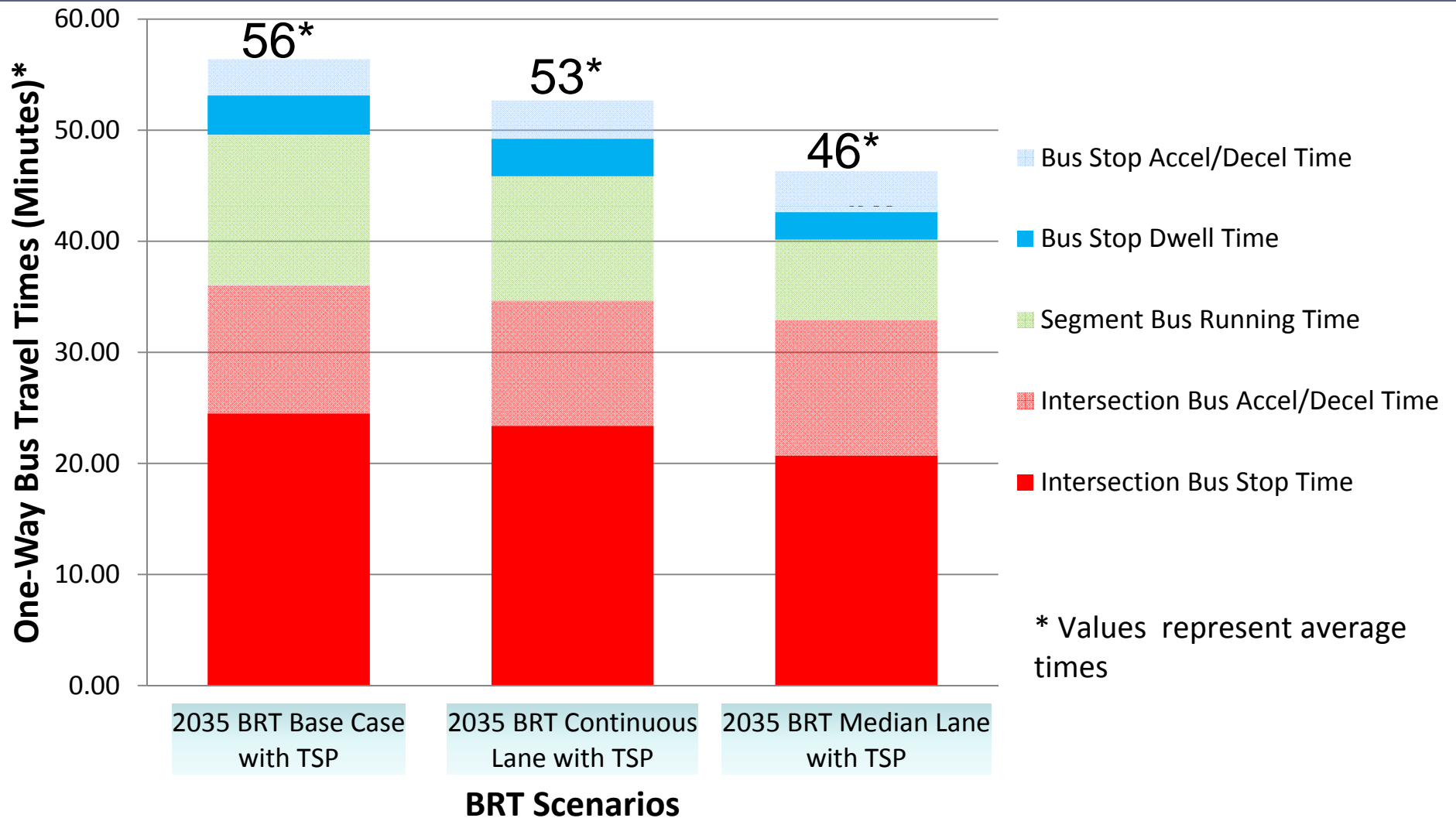
Continuous Median BRT Bus Lanes

BRT Operations Performance

- Route Components Include:
 - Bus Stop Acceleration/Deceleration Time
 - Bus Stop Dwell Time
 - Intersection Bus Acceleration/ Deceleration Time
 - Intersection Bus Stop Time
 - Segment Bus Running Time

- Component Performance Based On:
 - Actual Route 762 operation
 - 3-door bus boarding/departing time
 - Future traffic forecast
 - Transit Signal Priority (TSP) Performance from Crenshaw Boulevard TSP Before/After Study






One-Way Peak Hour Bus Travel Time Results for Each BRT Scenario



Evaluation of Potential Impacts of Continuous Bus Lanes

➤ Example

- Continuous Bus Lanes through residential neighborhood on Atlantic Boulevard in Alhambra

-  Potential Part Acquisitions
-  Potential Full Acquisitions
-  Existing Parcel Boundaries
-  BRT Footprint
-  BRT Alignment



Preliminary, For Study Purposes Only

Summary of Preliminary Findings for BRT Continuous Bus Lanes

Scenario	Description	Study Year	No. of AM/PM Parking Spaces Potentially Affected	No. of Permanent Parking Spaces Potentially Affected	No. of Properties Potentially Affected	Potential Property Acquisition (Acres)	Peak Hour Bus Travel Time One-Way (Minutes)*
1	BRT – Base Case	2035	1,000 - 1,100	60 - 70	30-35	< 0.5	56
2	BRT – Continuous Right Side Bus Lanes	2035	1,800 - 2,000	90-110	550-600	75-85	53
3	BRT – Median Bus Lanes on Trunk Line & Continuous Right Side Bus Lanes on North Loop	2035	0	1,900 - 2,100	650-700	80-90	46

* Values represent average times

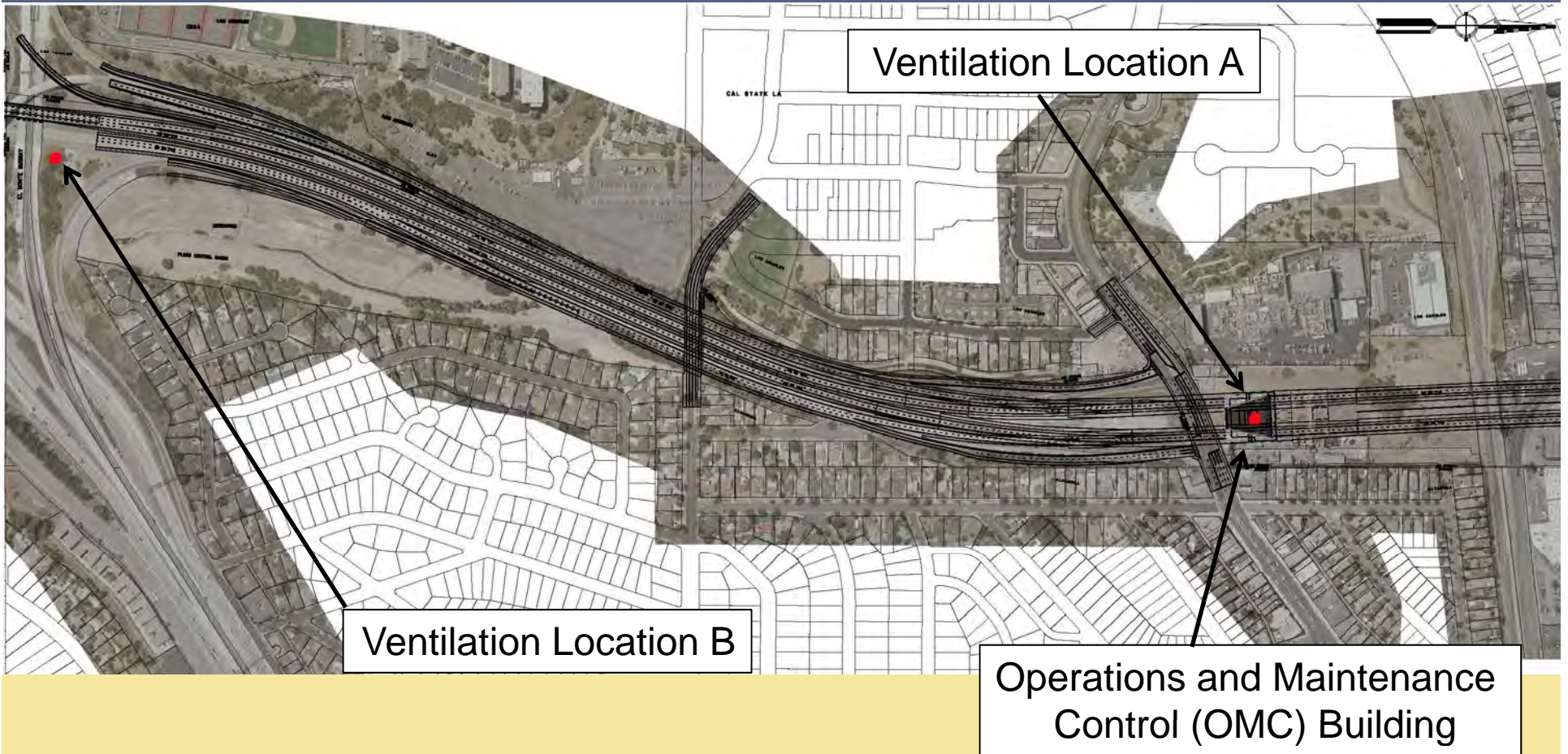
Conclusions Regarding Benefits and Effects of Continuous Bus Lanes

- **Continuous Right Side Bus Lanes:**
 - 5% travel time savings compared to BRT Base Case
 - Substantially more impacts to properties & parking
- **Median Bus Lanes:**
 - 18% travel time savings compared to BRT Base Case
 - With even greater impacts to properties & parking
- **Recommend for EIR/EIS - BRT Base Case as planned with portions of dedicated bus lanes:**
 - Bus travel time is almost as good
 - Substantially less property and parking impacts
 - No impacts to historic resource - SR110 Bridge

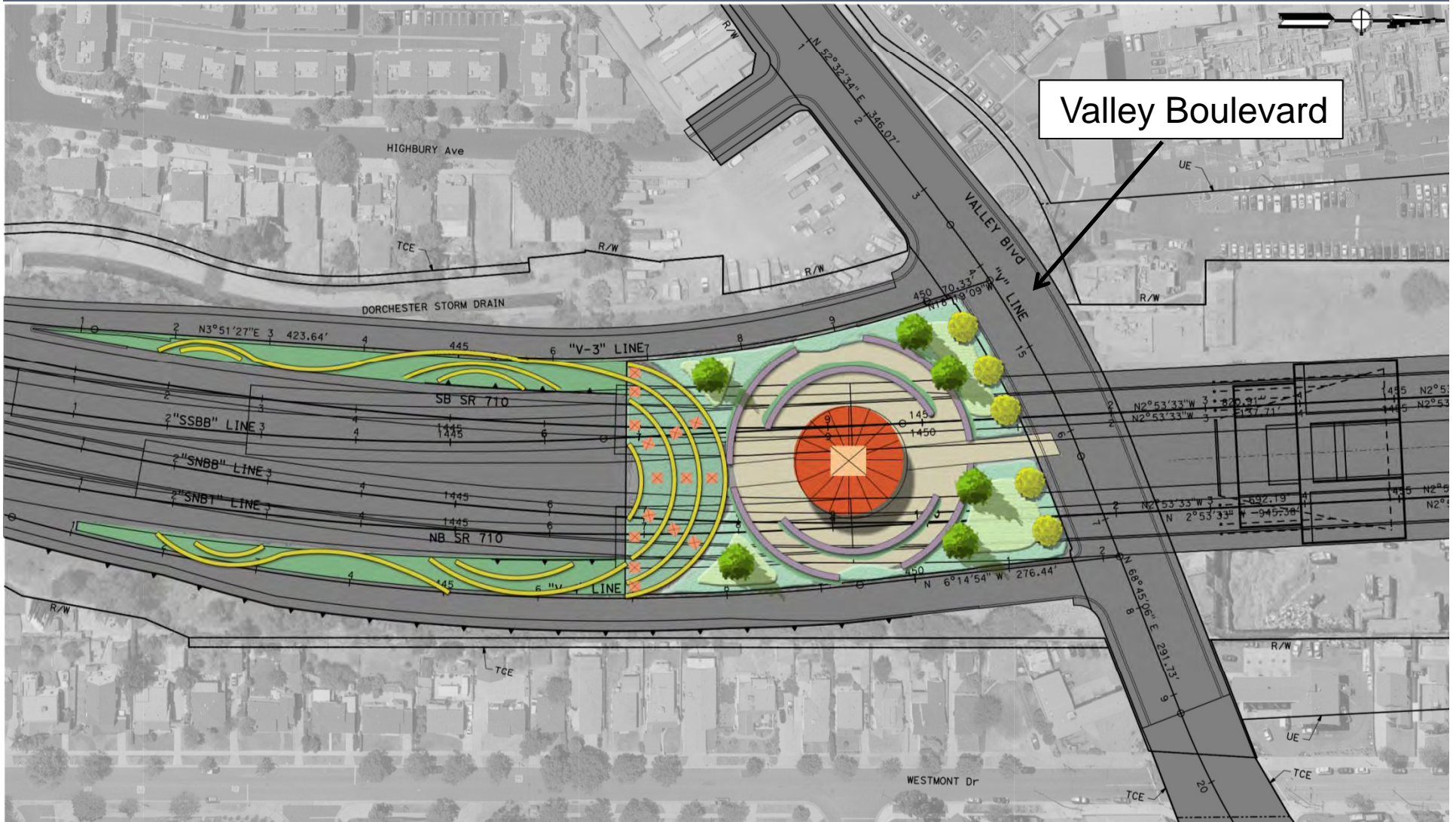
Freeway Tunnel Refinements

- Continue refinements to minimize impacts
- Evaluating raised tunnel profile at the north portal
- Developing landscaping and OMC building concepts
- Coordinating with first responders, fire marshal and CHP related fire, life, and safety element
- Evaluating portal ventilation locations

South Portal Ventilation Locations



Preliminary South Portal Landscape Concept

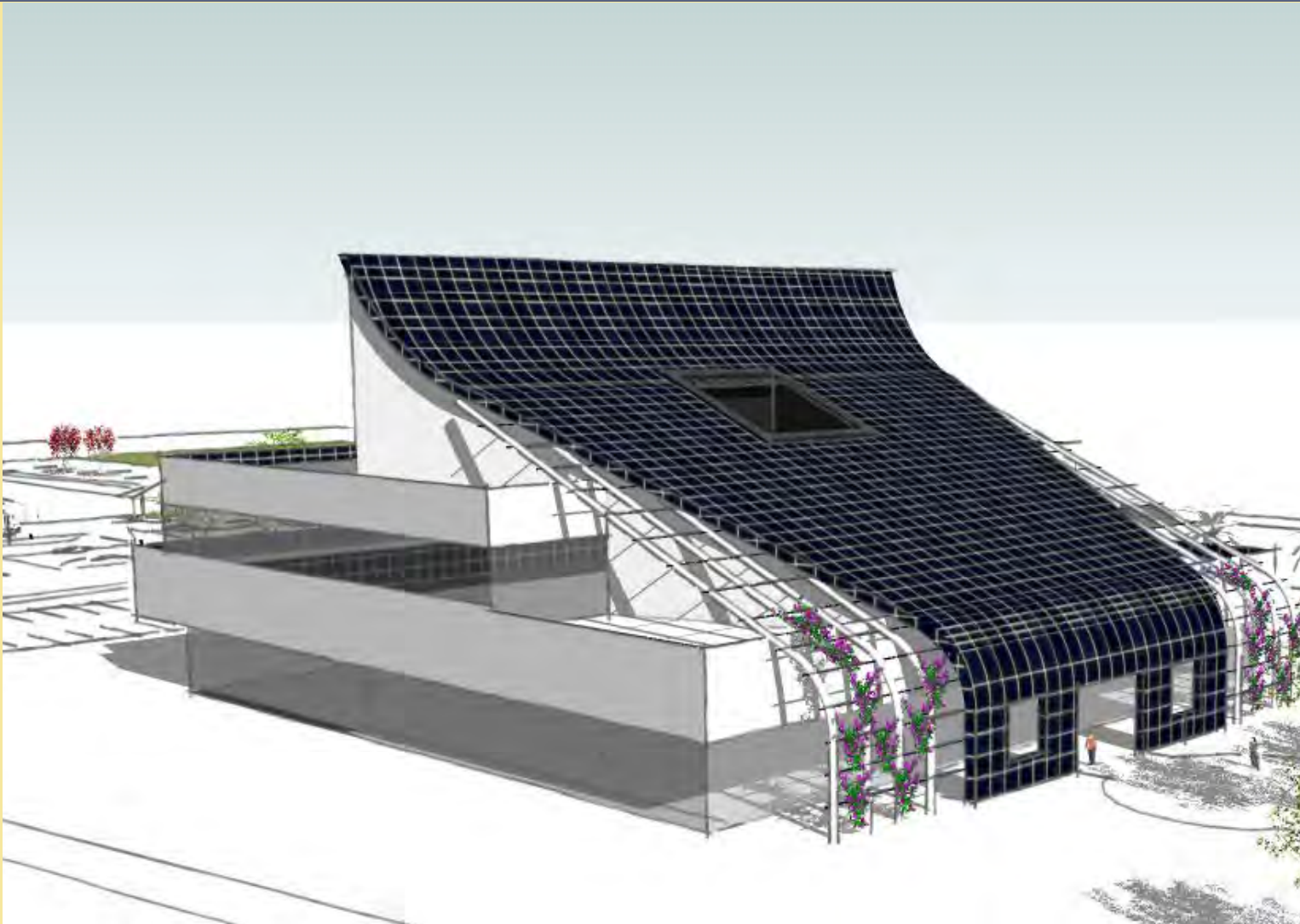


Preliminary South OMC Building Landscape Concept

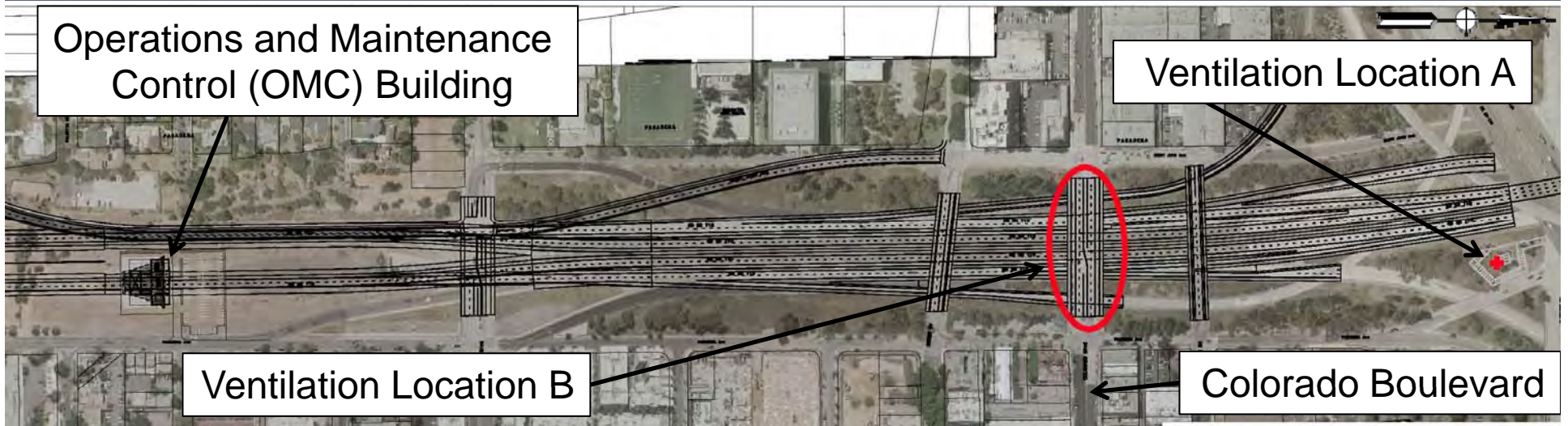


Valley Boulevard

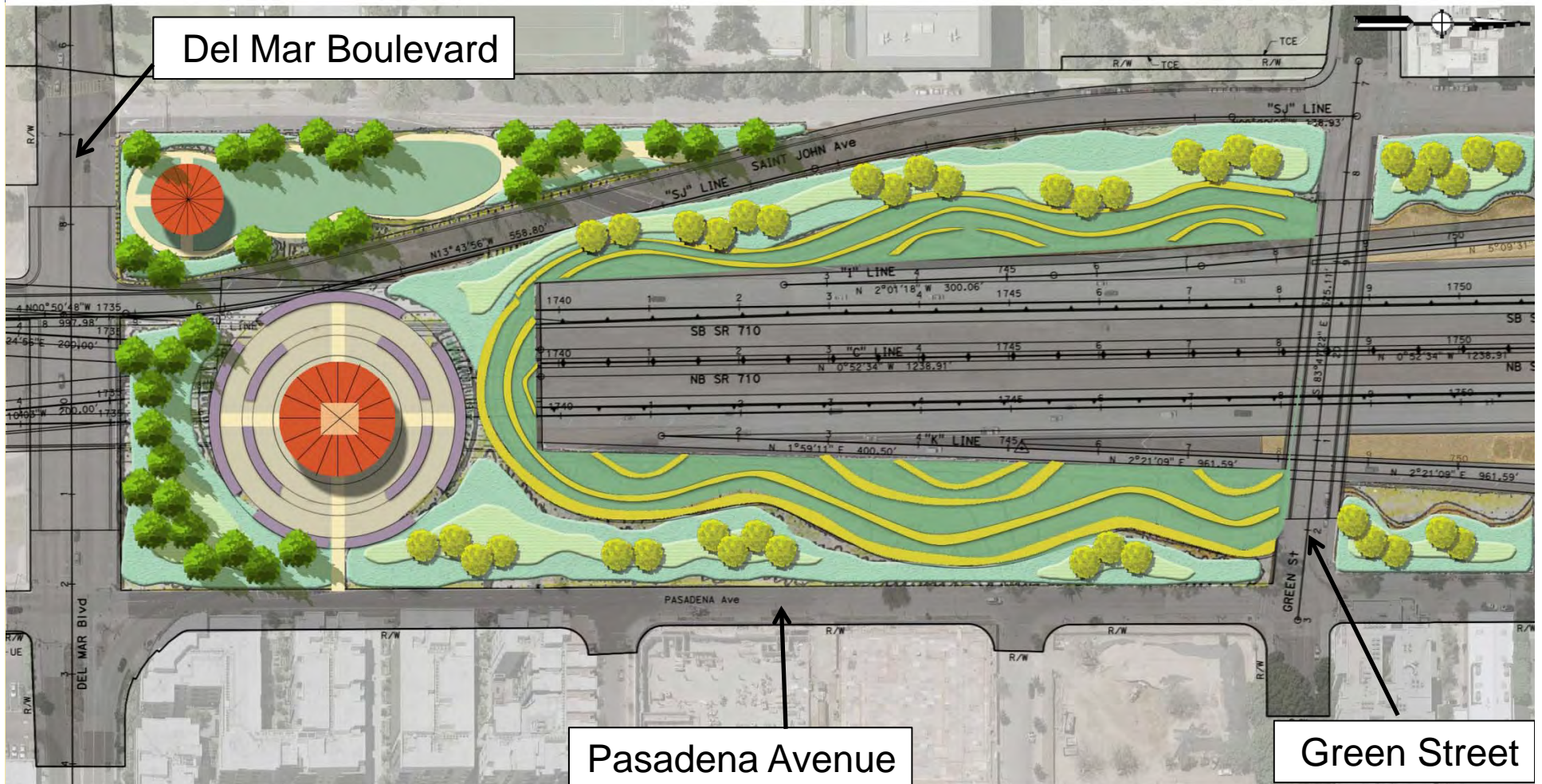
Preliminary Operations and Maintenance Control (OMC) Building Concept



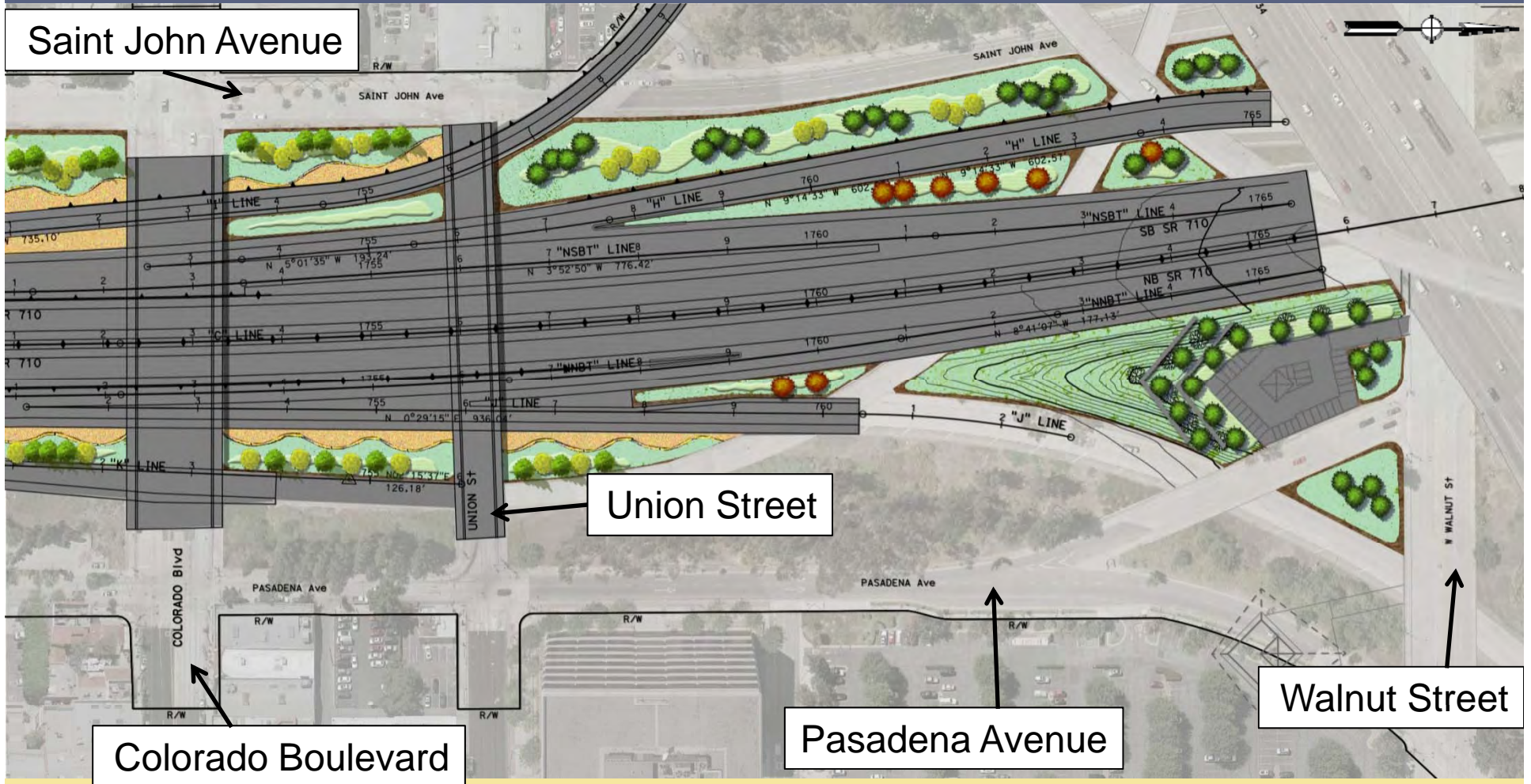
North Portal Ventilation Locations



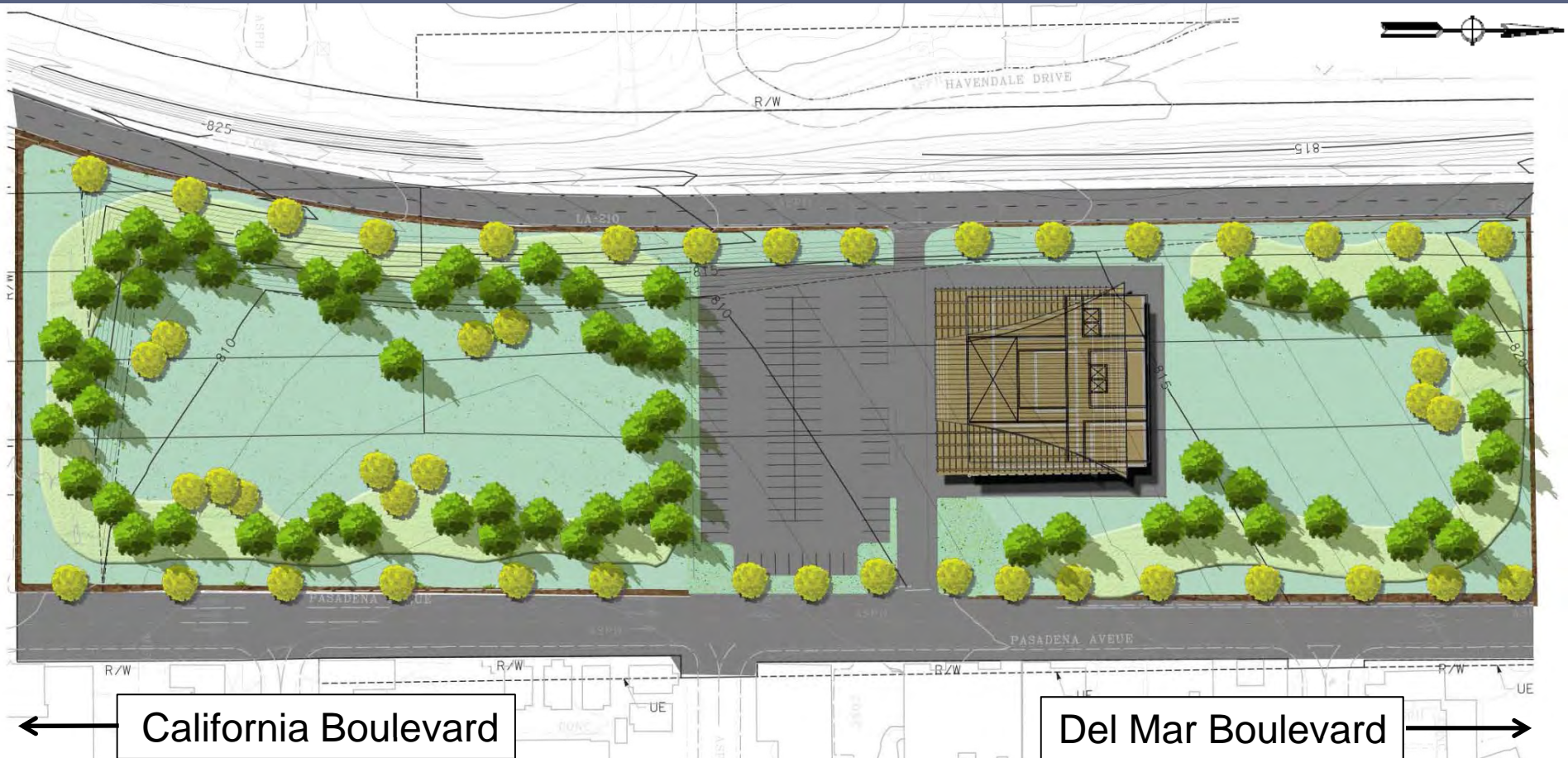
Preliminary North Portal Landscape Concept



Preliminary North Portal Landscape Concept



Preliminary North OMC Building Landscape Concept



Status Update on Environmental Studies Documentation



Environmental Studies Support the EIR/EIS

ENVIRONMENTAL STUDIES

- Property Acquisition
- Community/Neighborhood
- Cultural Resources
- Parks & Facilities
- Air & Water Quality
- Noise
- Environmental Justice
- Health Risk Assessment
- Tolling
- Traffic
- Economic
- Tunnel Fire/Life Safety
- Construction



Environmental Technical Studies

- Baseline data gathering (including field surveys) is ongoing
- Technical study teams are currently reviewing plans of the build alternatives for analysis
- Working with engineering team to verify construction assumptions for each build alternative

Environmental Technical Studies

- Noise measurements were conducted in Alhambra, Pasadena, South Pasadena, La Cañada Flintridge and Los Angeles/East Los Angeles in late July, August and September
- Team met with SCAQMD to discuss emission requirements

Status Update on Traffic Analysis



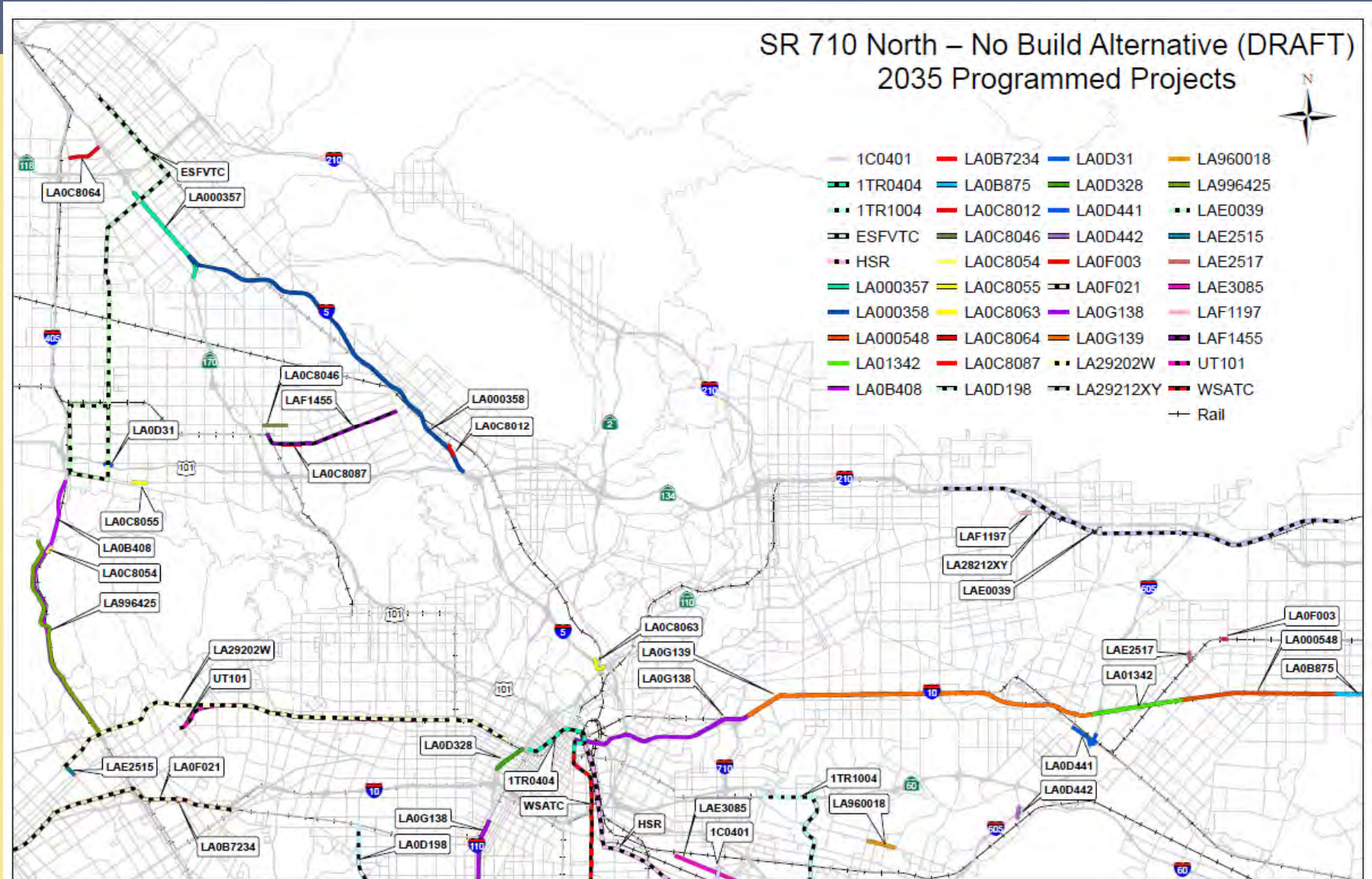
Traffic Analysis Status

- Existing Conditions (2012) Travel Demand Model Validation Complete
- Existing Conditions Operations Models (for Level of Service) Nearing Completion
- Extensive Model Runs with Alternatives (No Build and Build) Underway
- Preliminary Results for 2035 Assessed

Upcoming Traffic Analysis Steps

- Complete 2035 Model Runs (Input to Environmental Analysis)
- Conduct Traffic Analysis (LOS) for Freeway and Surface Streets
- Transit, Parking, Bike/Ped Assessments

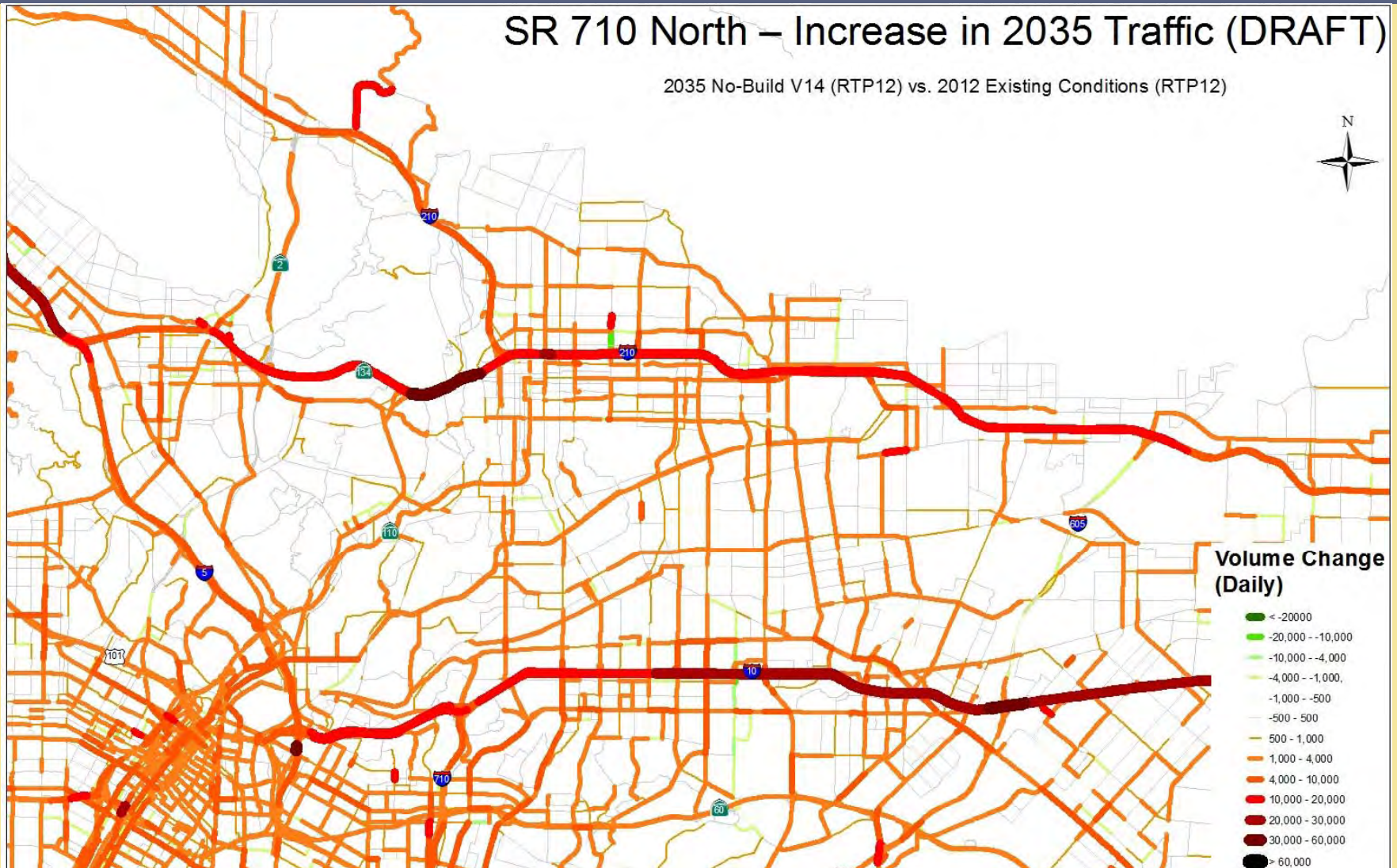
Updated No Build Projects Map



No Build Vs. Existing – Daily

SR 710 North – Increase in 2035 Traffic (DRAFT)

2035 No-Build V14 (RTP12) vs. 2012 Existing Conditions (RTP12)

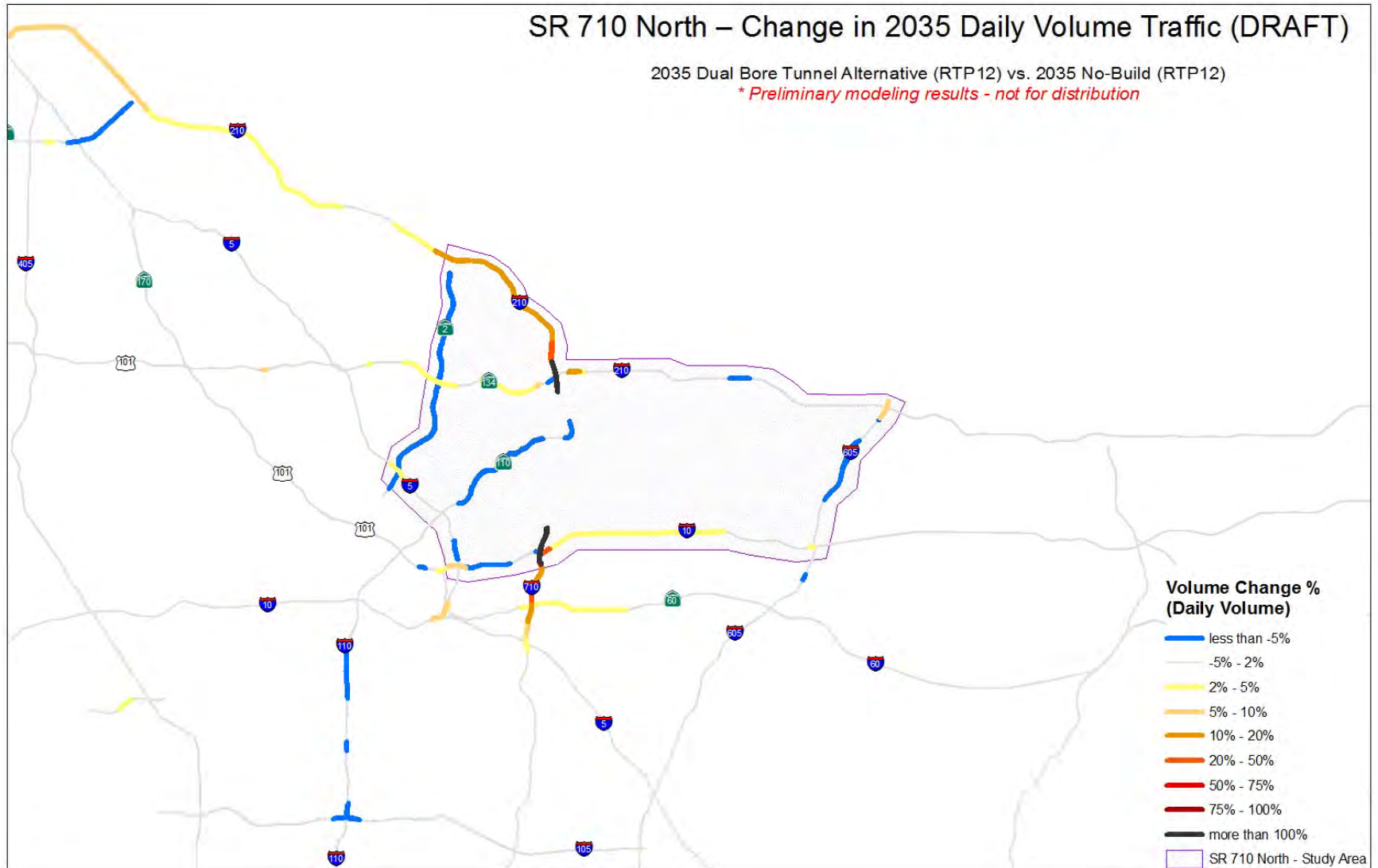


Traffic Analysis Impact Area Daily

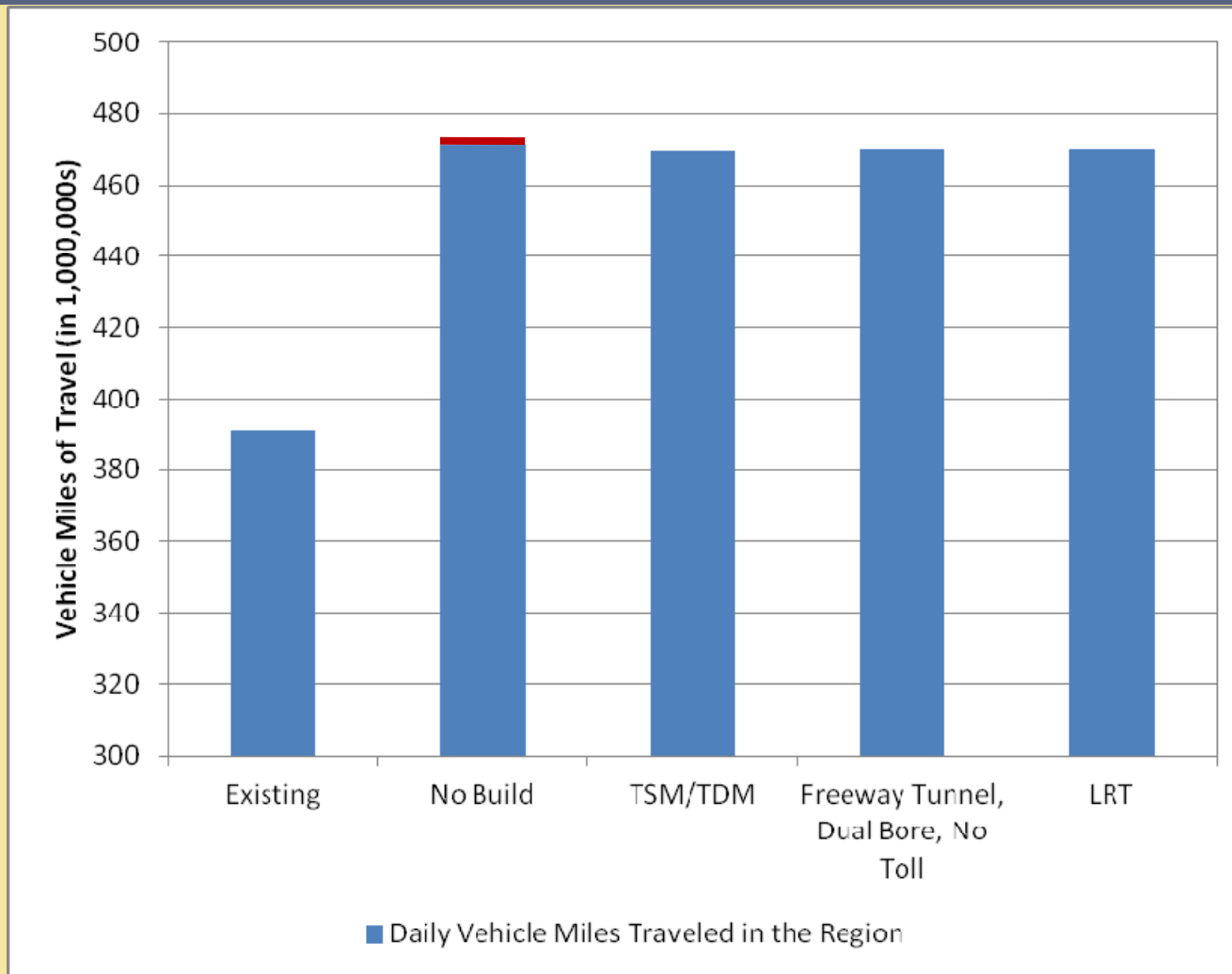
SR 710 North – Change in 2035 Daily Volume Traffic (DRAFT)

2035 Dual Bore Tunnel Alternative (RTP12) vs. 2035 No-Build (RTP12)

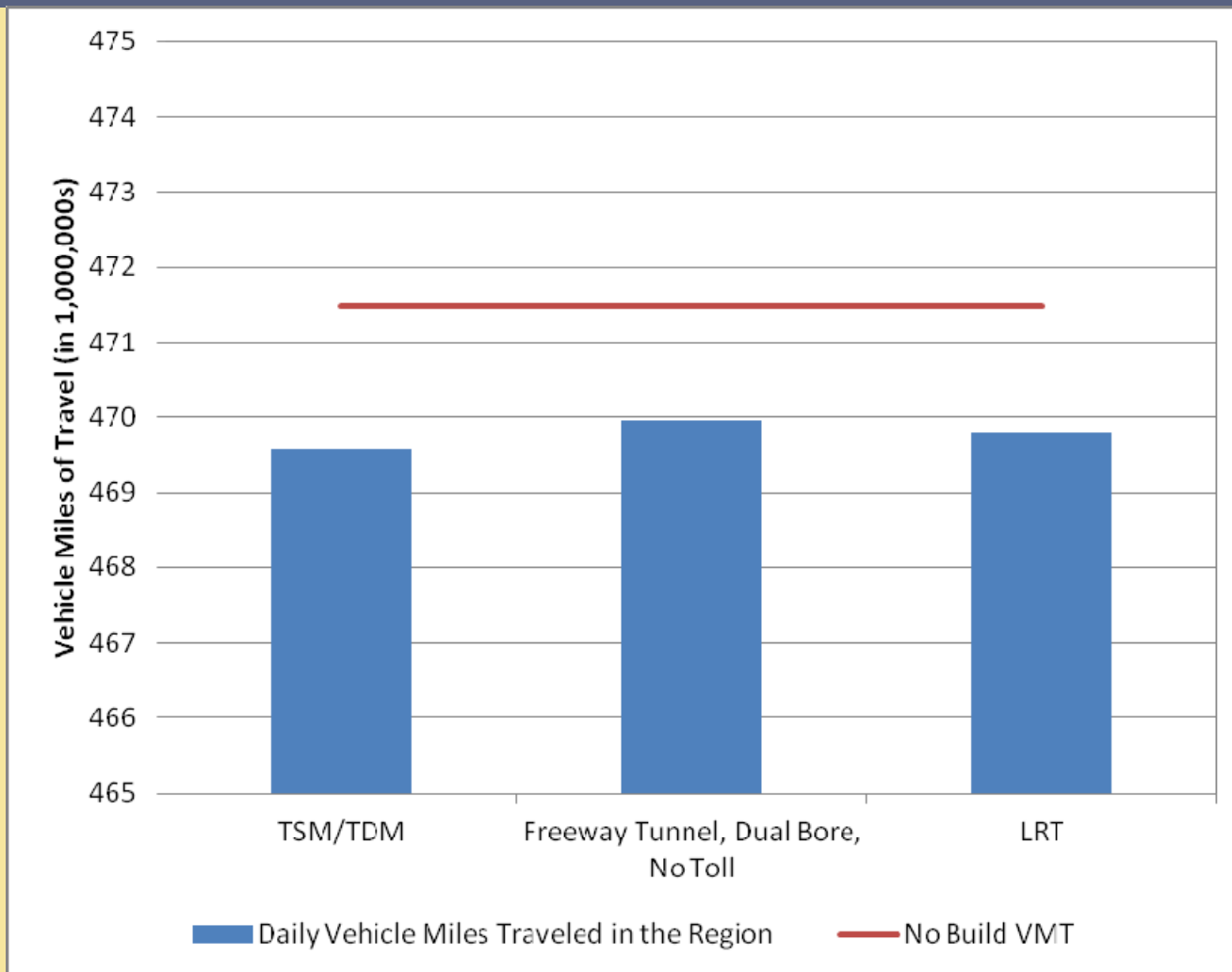
** Preliminary modeling results - not for distribution*



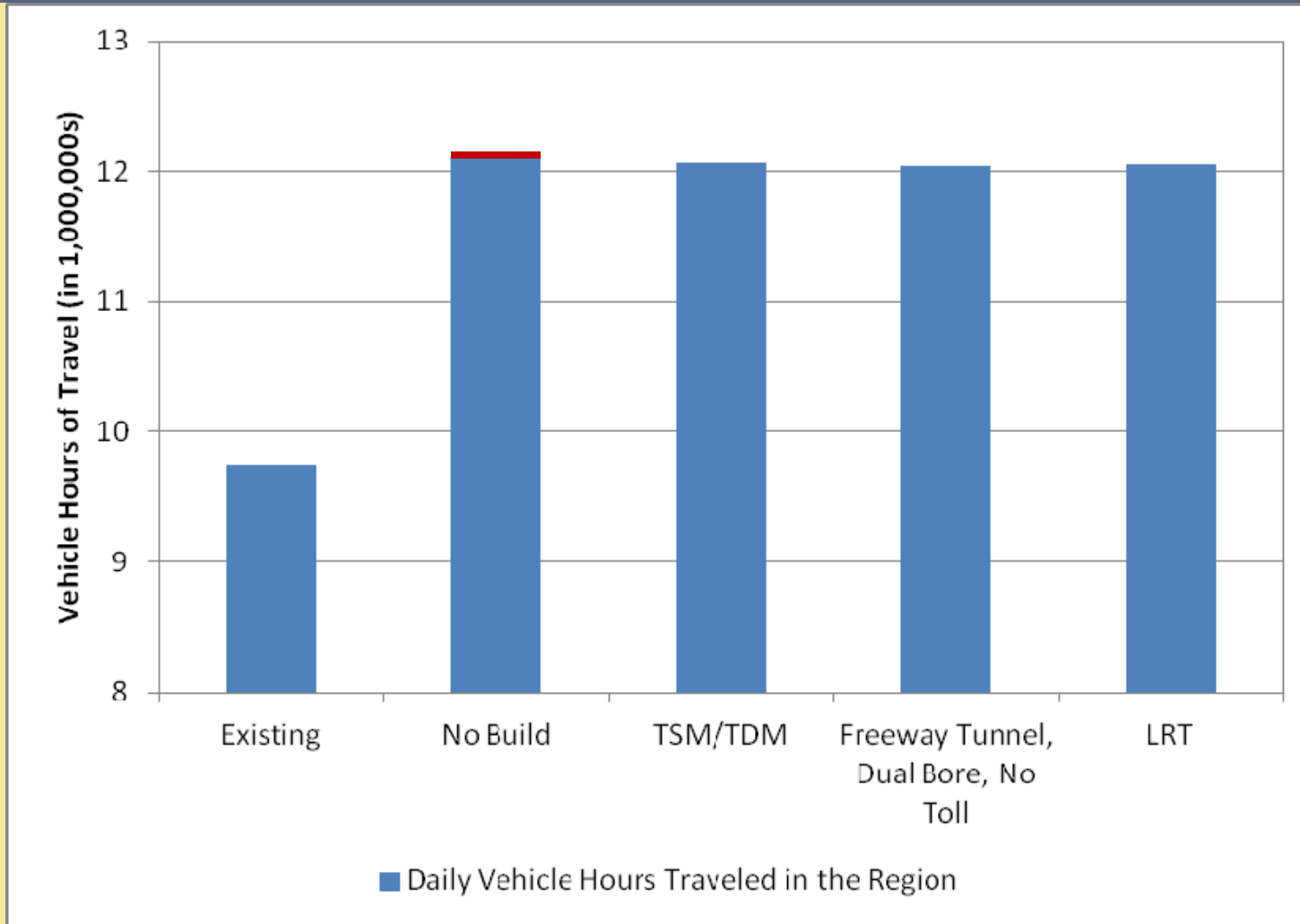
Daily Vehicle Miles Traveled (VMT) in the Region



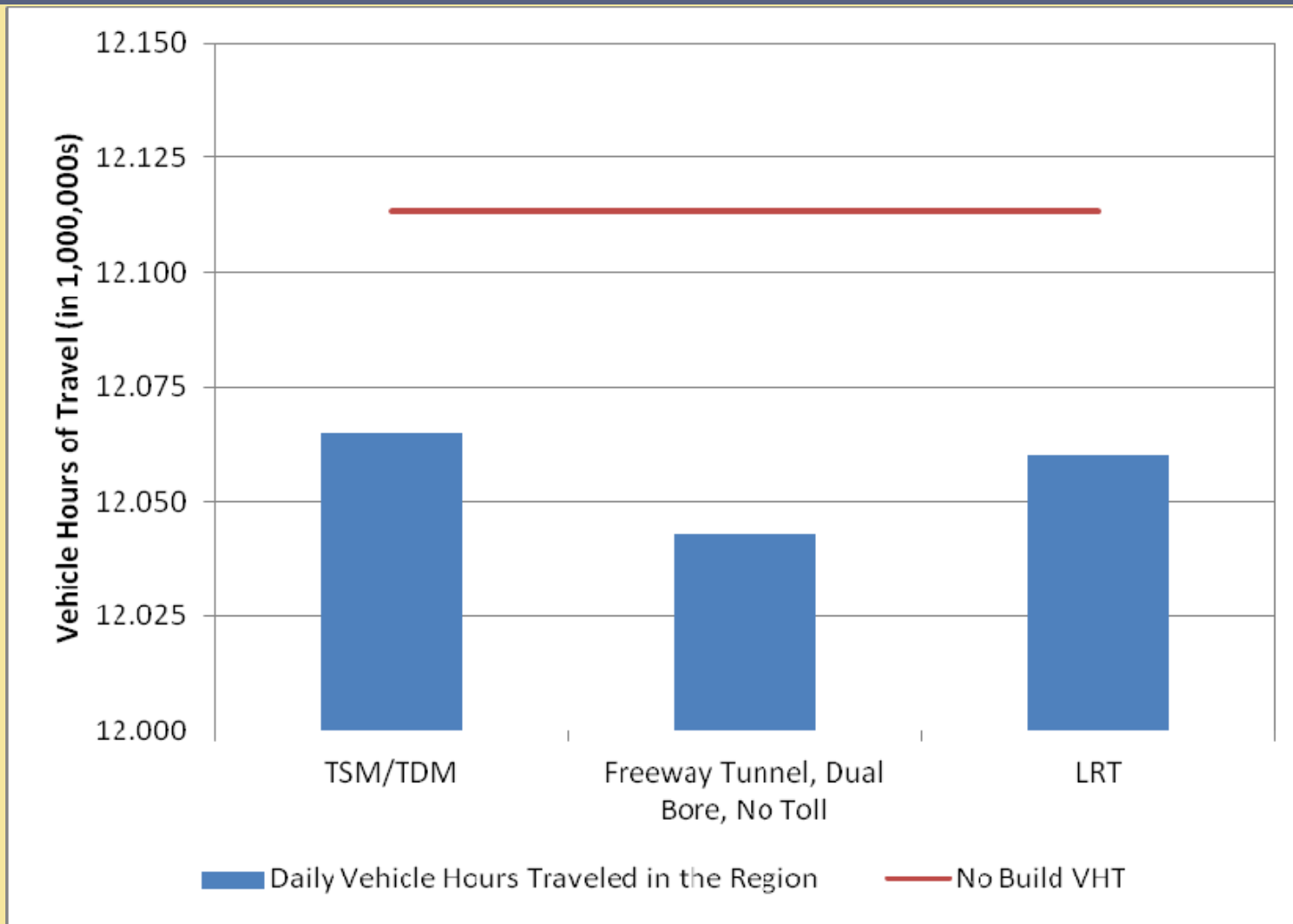
Build Alternatives Daily VMT in the Region



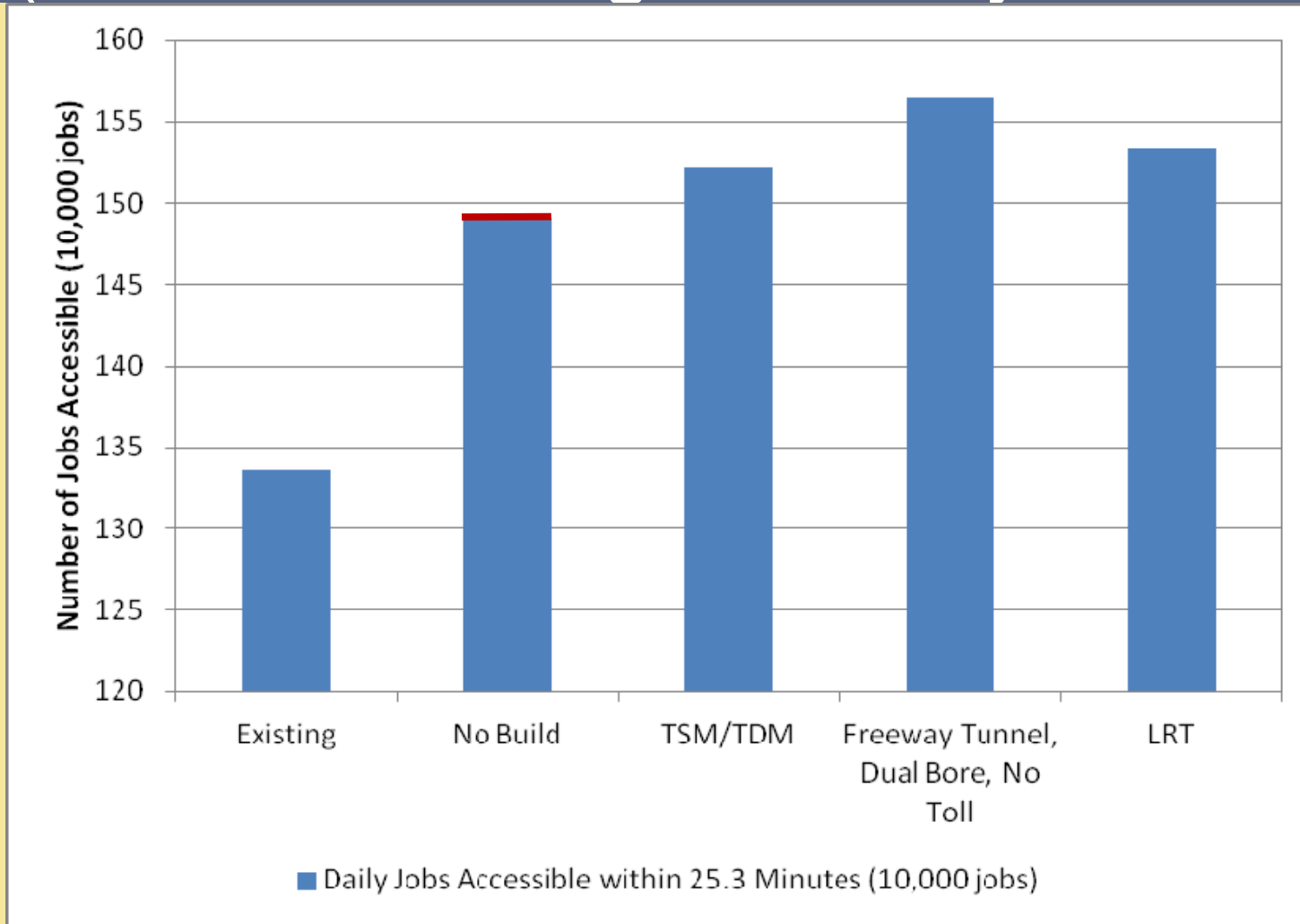
Daily Vehicle Hours Traveled (VHT) in the Region



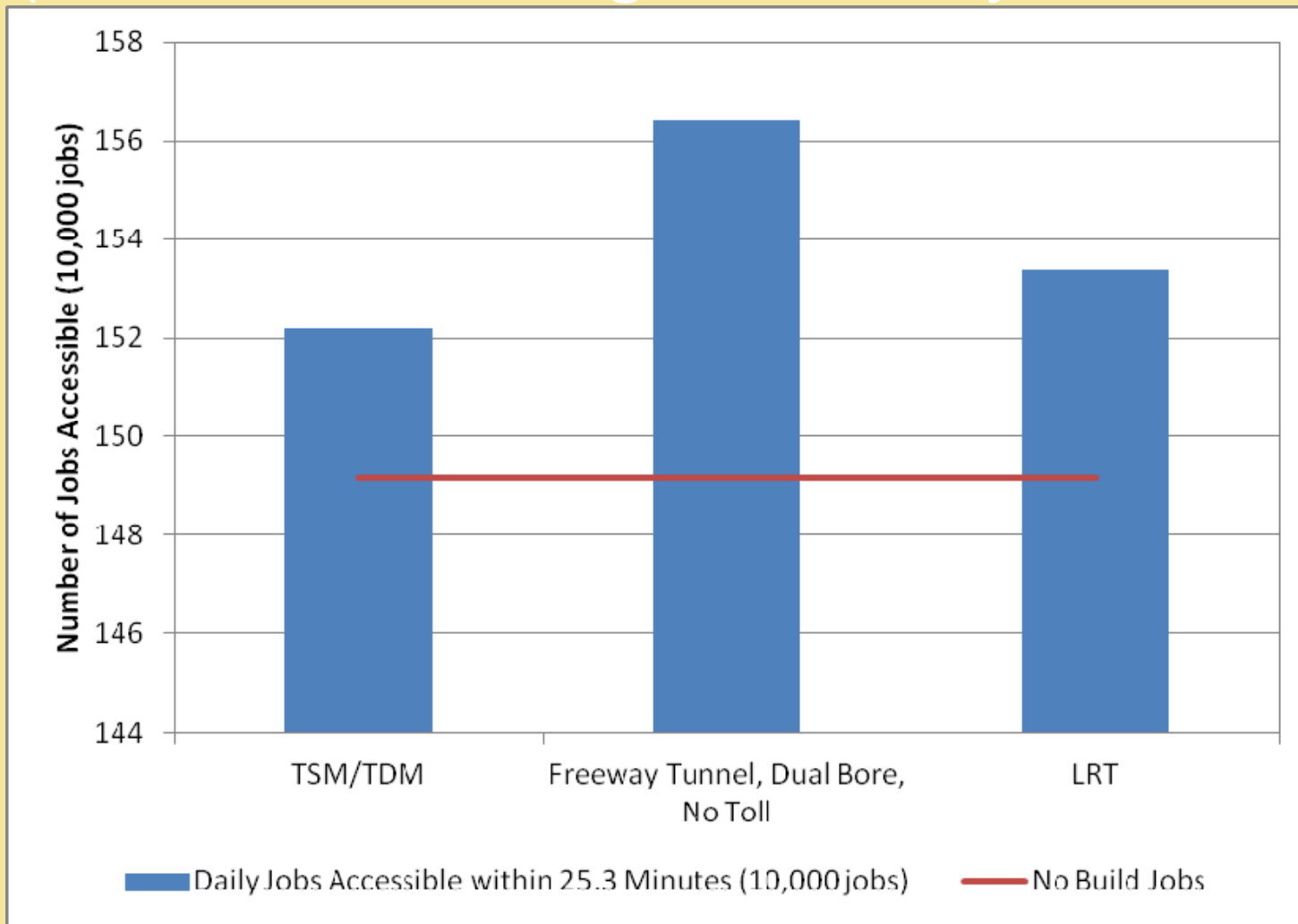
Build Alternatives Daily VHT in the Region



Number of Jobs Accessible within 25.3 Minutes (National Average Journey to Work)



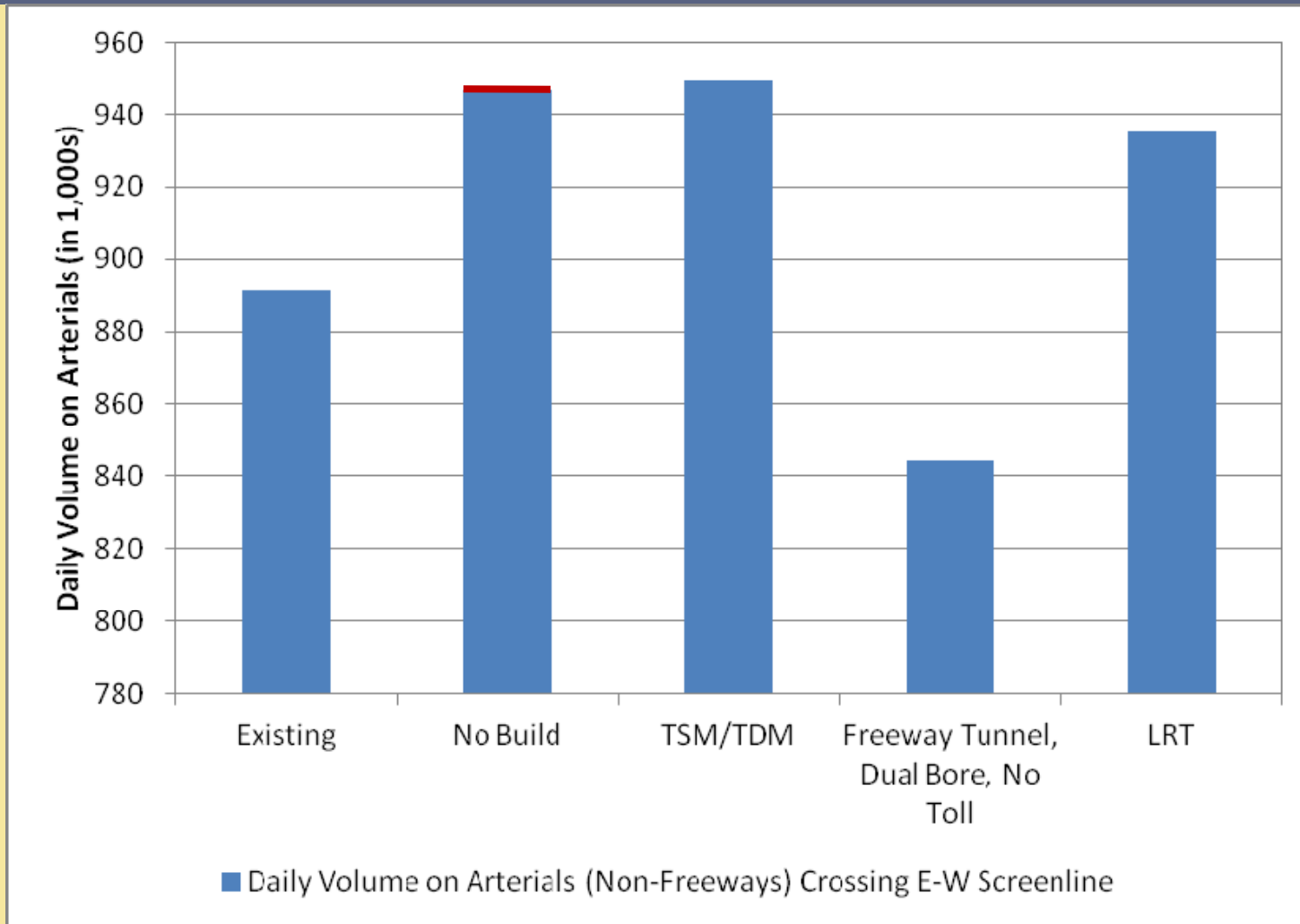
Build Alternatives Daily Jobs Accessible within 25.3 Minutes (National Average Journey to Work)



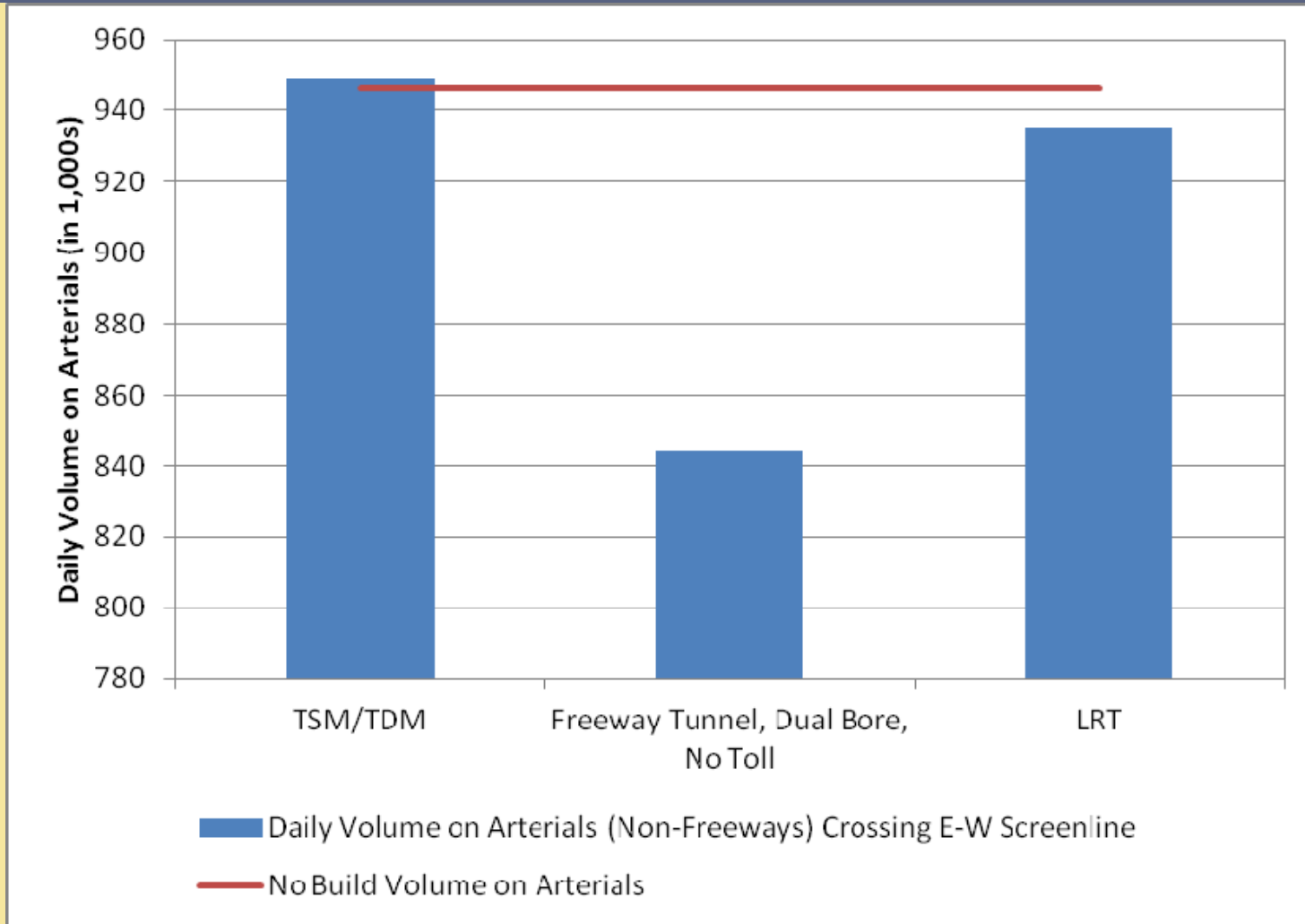
Daily Volume on Arterials (Non-Freeways) Crossing East-West Screenline



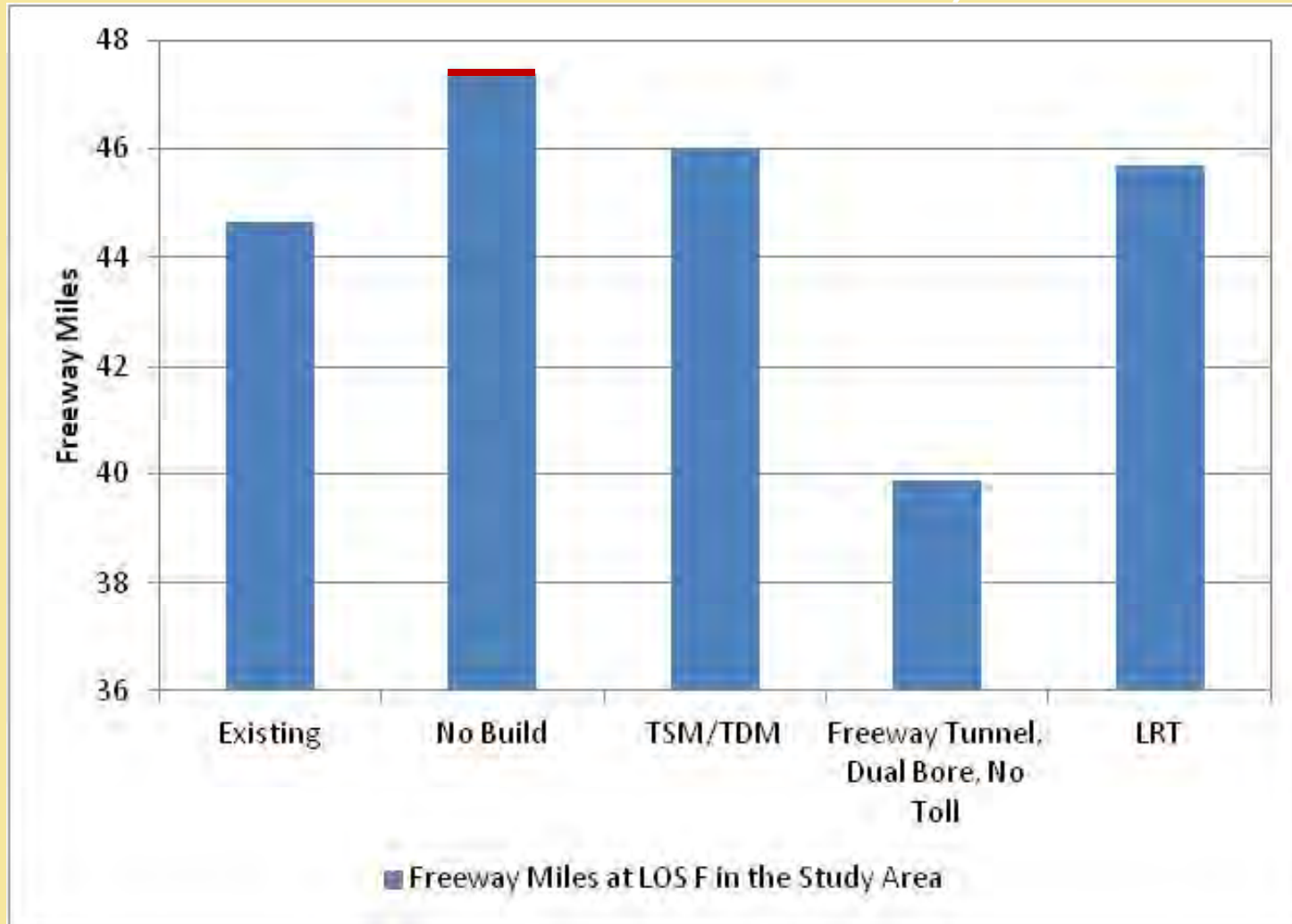
Daily Volume on Arterials (Non-Freeways) Crossing East-West Screenline



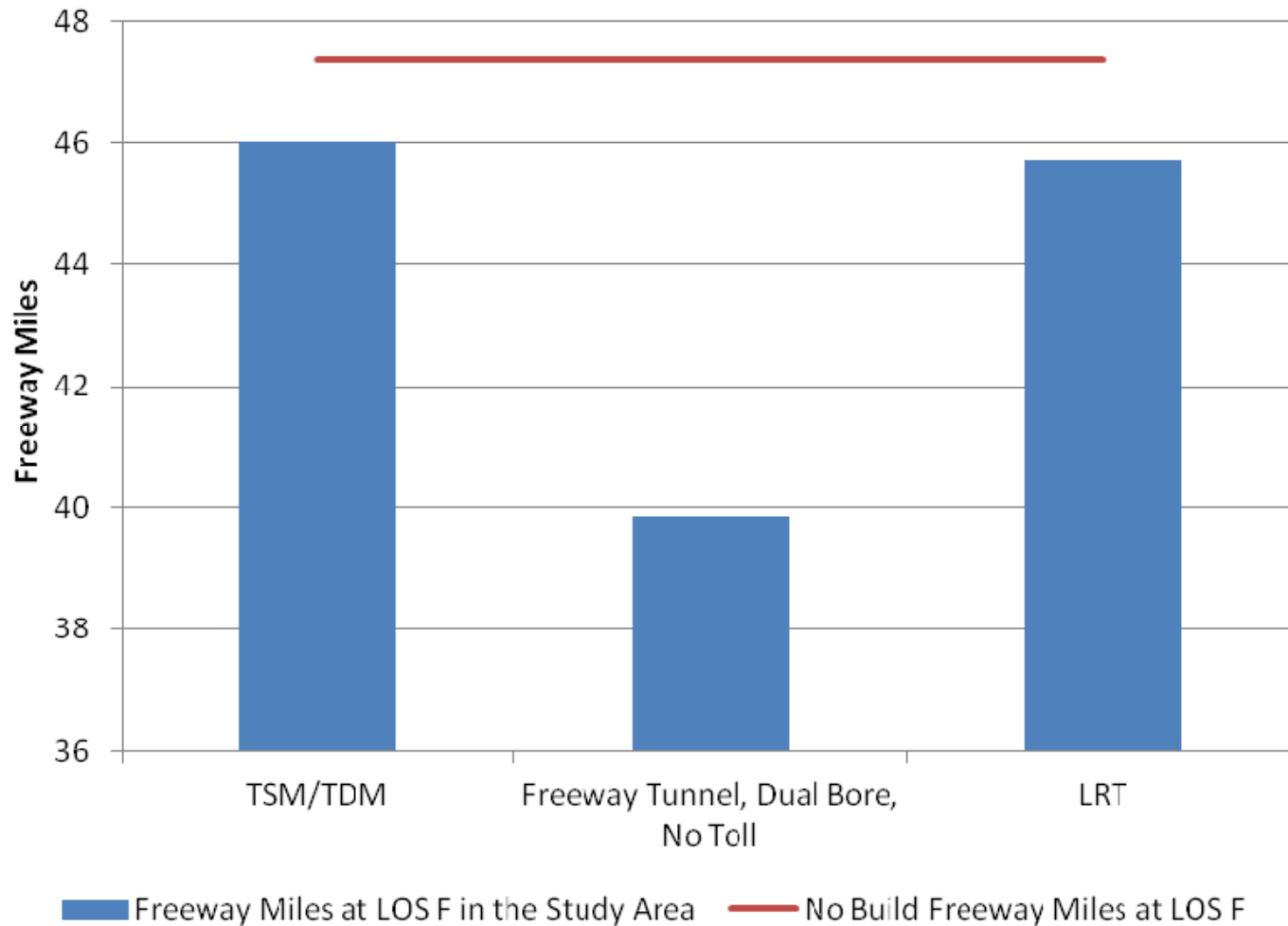
Build Alternatives Daily Volume on Arterials (Non-Freeways) Crossing East-West Screenline



Freeway Miles with LOS F in the Study Area (Greatest Between AM and PM Peak)



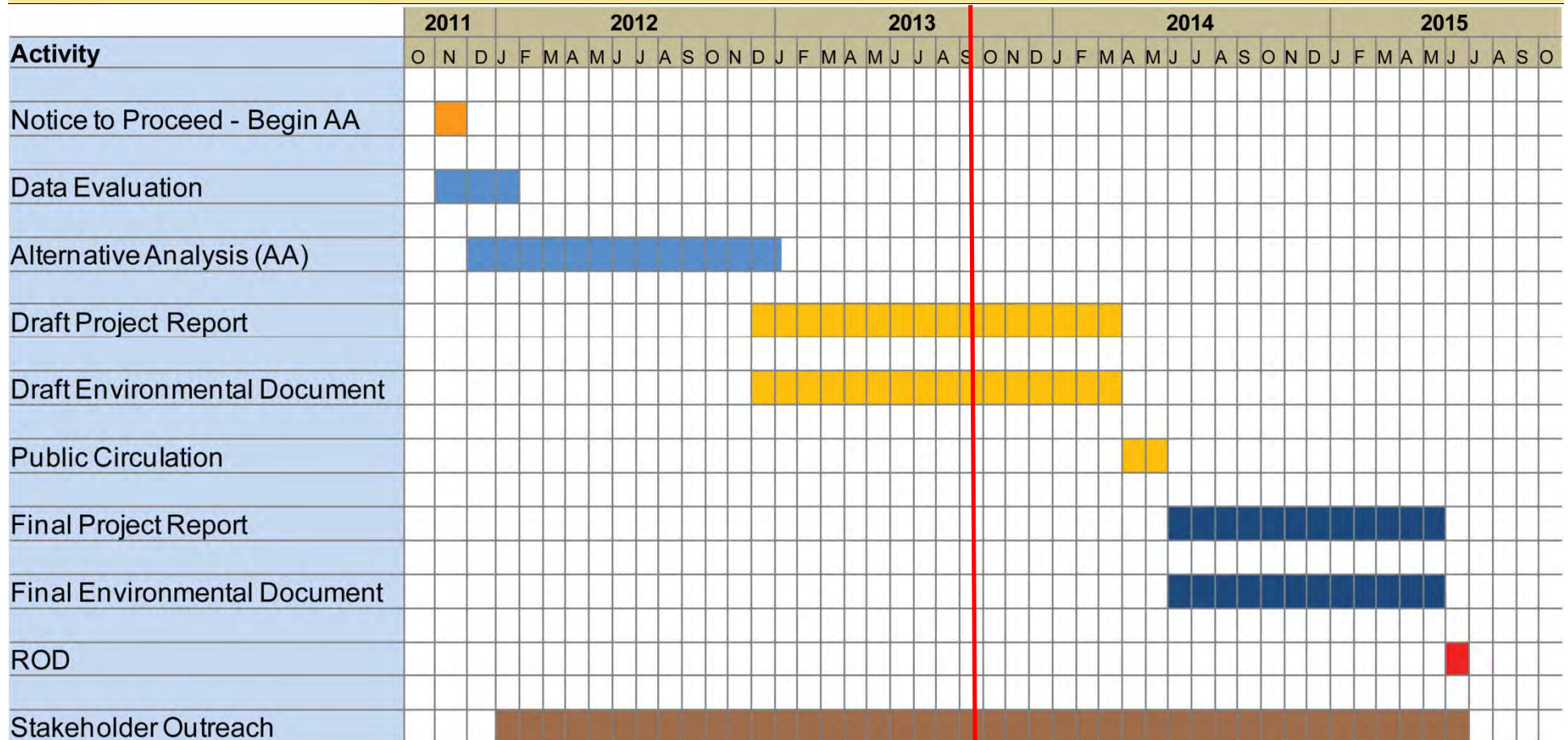
Build Alternatives Freeway Miles with LOS F in the Study Area (Greatest Between AM and PM Peak)



Next Steps



Study Schedule



Next Steps

- VA Study recommendations will be presented at the next meeting
- Evaluate performance of build alternatives
- Continue with Technical Studies
- Continue with Preliminary Engineering
- Begin preparation of the Draft Environmental Document

Tentative Meeting Dates for TAC/SOAC

- 2013 TAC/SOAC Meeting Schedule
 - November 13/14

Open Discussion

