

# California Boulevard Grade Separation Project Update

City Council  
October 25, 2021



Item 8





# Recommendations

Department of Transportation

- It is recommended that the City Council:
  1. Find this action is exempt from the California Environmental Quality Act (“CEQA”) pursuant to State CEQA Guidelines Section 15061(b)(3), Review for Exemption; and
  2. Direct the City Manager to identify potential projects, to submit to Metro for consideration in lieu of the Metro L Line California Boulevard Grade Separation Project.





# Background

Department of Transportation

**\$230.5 M in  
Measure R Mobility  
Improvement  
Program (MIP)  
funding**

- Environmental study
- Design
- ROW acquisition
- Construction

**City Staff/Metro  
Coordination  
Meetings**

- October 2019 – April 2020
- Project management options
- Tentative project schedule
- Initial conceptual alternatives
- Identified project constraints

PASADENA





# Project Constraints

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## Right of Way

- Typically 30-ft from Glenarm Street to Del Mar Boulevard
- Properties on both sides of the tracks: institutional, medical, commercial, retail and restaurants

## LRT Stations

- Fillmore Station: 600-ft south of California Blvd
- Del Mar Station: 1800-ft north of California Blvd

## Adjacent Intersections

- Raymond Avenue: 150-ft to the west
- Arroyo Parkway: 150-ft to the east

## Construction Duration

- California Boulevard closure 18-months to 4 years

## Active Rail Operation

- Parallel track (shoofly) construction
- Bus Bridge





# Project Alternatives

## Department of Transportation



### Rail Aerial

- Rail alignment would be raised 24ft at California Blvd
- Require vertical alignment to begin transition approximately 1500ft south of California Blvd
- Fillmore Station would be reconstructed and raised by 9ft



### Rail Underpass

- Rail alignment would be depressed 30ft crossing California Blvd
- Fillmore Station and Del Mar Station would not be impacted
- Significant utility impacts (45-in City storm drain and 54-in LA County storm drain)
- Estimated to have a long construction schedule



### Hybrid (rail elevated 19 ft, road depressed 3.5 ft)

- Fillmore Station would not require reconstruction
- Rail elevation would connect to existing tracks north of Fillmore Station
- Some underground utilities will still require relocation
- Alternative 3 was identified for ROW impact and ROM development



### Rail Signal Control

- Hold trains at stations until clear
- Mandatory stop at grade crossing
- Requires CPUC approval
- Significant rail operations impacts





# Metro vs Construction Authority - Assumptions

Department of Transportation

- Initial conceptual alternatives review with Metro
  - > Requires construction of shoofly
  - > Conservative Cost Estimate
- Construction Authority Assumptions
  - > Do not construct shoofly
    - Reduced construction costs
    - Reduced right-of-way acquisition/costs
    - Reduced construction duration
  - > Double shift construction





# Metro vs Construction Authority - Costs

Department of Transportation

Item Description	Rough Order of Magnitude Costs	
	Metro Estimate	Construction Authority Modified Metro Estimate
Guideway and Track Elements	\$47,571,475	\$47,571,475
Shoofly	\$117,000,000	\$0
Roadwork	\$8,000,000	\$8,000,000
Temporary Station/Crossovers	\$3,225,000	\$3,225,000
Site work and Special Considerations	\$8,500,000	\$8,500,000
<b>Construction Subtotal</b>	<b>\$184,296,475</b>	<b>\$67,296,475</b>
Construction Contingency (20%)	\$36,859,295	\$13,459,295
Overhead (20%)	\$36,859,295	\$13,459,295
Profit (10%)	\$18,429,648	\$6,729,648
<b>Construction Total</b>	<b>\$276,444,713</b>	<b>\$100,944,713</b>
Soft Costs – Planning/EIR, Design, CM, etc. (38%)*	\$105,048,991	\$38,358,991
Unallocated Contingency (15%)	\$27,644,471	\$10,094,471
Bus Bridge (8-months)	\$18,375,000	\$18,375,000
ROW Acquisition	\$150,000,000	\$15,000,000
<b>PROJECT TOTAL COSTS IN 2020 DOLLARS</b>	<b>\$577,513,175</b>	<b>\$182,773,175</b>





# Metro vs Construction Authority – Schedule

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<b>Estimated Construction Schedule (by Task)</b>	<b>Metro</b>	<b>Construction Authority</b>
Construct Shoofly	9 – 12 months	N/A
Cutover to Shoofly	4 – 5 months	N/A
Build Grade Separation (depress roadway and elevate tracks)	2 years (24 months)	18 months (double shifts)
Tieback to mainline / remove Shoofly	4 – 5 months	N/A
Total Closure of California Blvd between Arroyo Pkwy Raymond Ave	3.5 – 4 years	18 months





# Staff Evaluation

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- Costs and potential impacts outweigh the benefits of constructing a grade separation at California Blvd
- Completed Enhancements
  - > Preemption time modifications
  - > Signal operations modifications
  - > Adaptive traffic control
- Other transportation solutions could more effectively:
  - > Address mobility needs
  - > Reduce intersection delay
  - > Address multimodal safety





# Recommended Next Steps

Department of Transportation

- Identify projects that could be advanced in lieu of the California Blvd grade separation
- Account for multi-modal needs and opportunities along 710N corridor
- Prepare an updated project list
  - > Build on the project list approved by City Council on January 28, 2018
- Develop a project list in early 2022 and return to City Council for approval
- Coordinate with Metro for consideration of funding reallocation





# Council Policy Consideration

Department of Transportation

- Proposed action is consistent with the goals of the General Plan Mobility Element, addressing the following policies:
  - > Policy 1.6 - Continue to invest in innovative information technology and applications to help improve access to all transportation choices
  - > Policy 1.12 - Apply traffic management measures to manage vehicular speeds as a function of designated street type to ensure safe and orderly movement of all modes of travel.
  - > Policy 1.30 - Pursue funding opportunities such as grants, impact fees, or fair share contributions from development to implement programs and projects that contribute to the City's Mobility Element objectives.





# Environmental Analysis

Department of Transportation

- The project has been reviewed for compliance with the California Environmental Quality Act (CEQA) and is exempt per Section 15061 (b) (3), Review for Exemption
  - > A decision to review potential future projects does not result in a significant effect on the environment.
  - > As projects are identified and the planning process for each project starts, an environmental analysis will be conducted for each project individually.





# Fiscal Impact

Department of Transportation

- Work completed in accordance with the recommended action would be done using existing Transportation Department Operating Budget.
- Potential projects identified by staff will be presented to City Council for approval before being submitted to Metro for consideration.
- The fiscal impact of the proposed projects would be identified at that time.





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# Additional Information

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- Project Location and Volumes
- Grade Separation Options
- Project Alternatives
- Metro Cost Estimate
- Metro Construction Schedule





# Project Location and Volumes

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# California Blvd at Arroyo Pkwy: Looking West Towards At-Grade Crossing

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# California Blvd at Raymond Ave: Looking East Towards At-Grade Crossing

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# All Possible Options

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- Rail over the roadway
- Rail under the roadway
- California Blvd over the railway
- California Blvd under the railway
- A combination of Items 1-4 (Hybrid)
- Traffic synchronization/signal priority

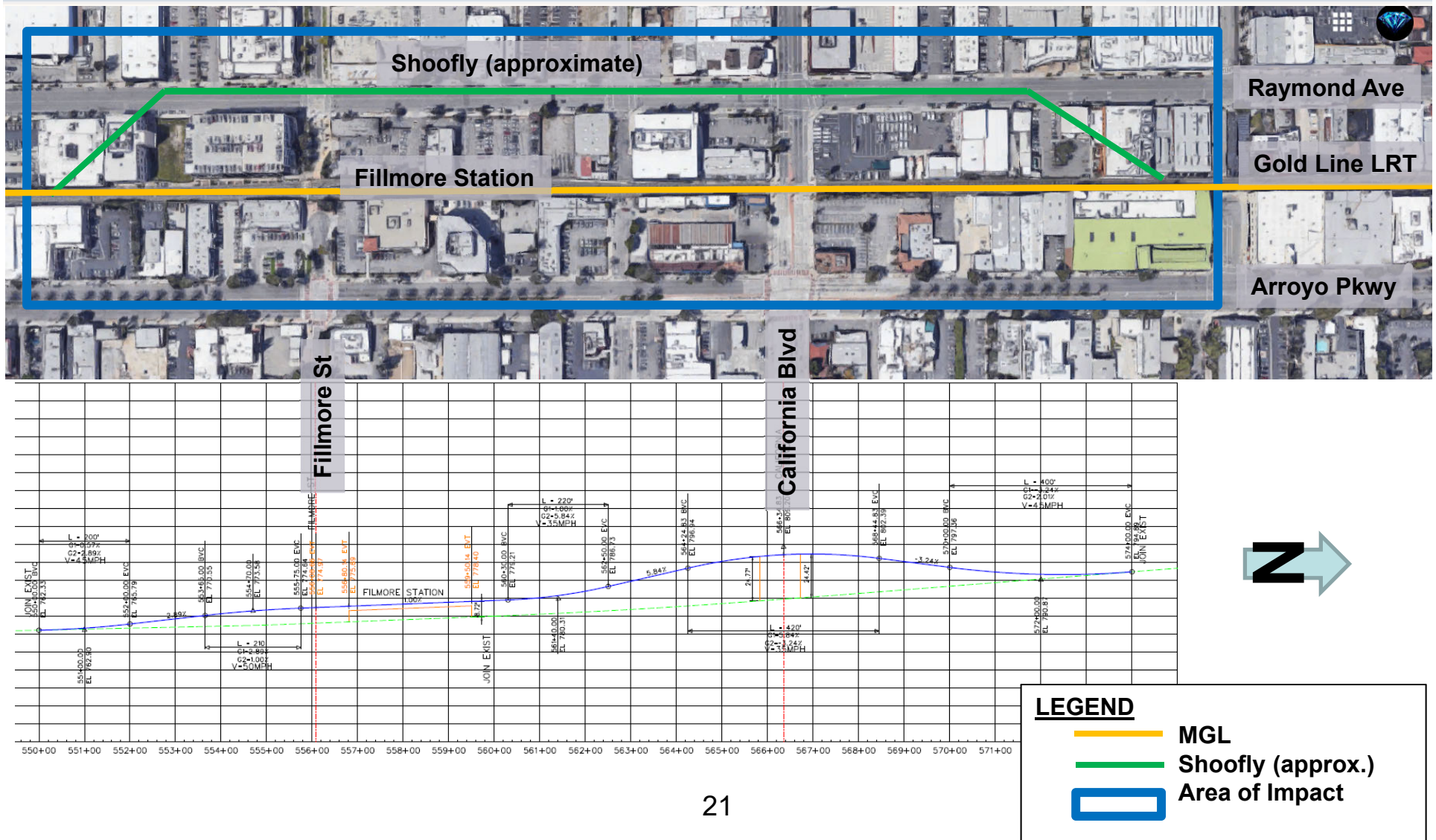






# Alternative 1: Aerial

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# Alternative 1: Aerial

Department of Transportation

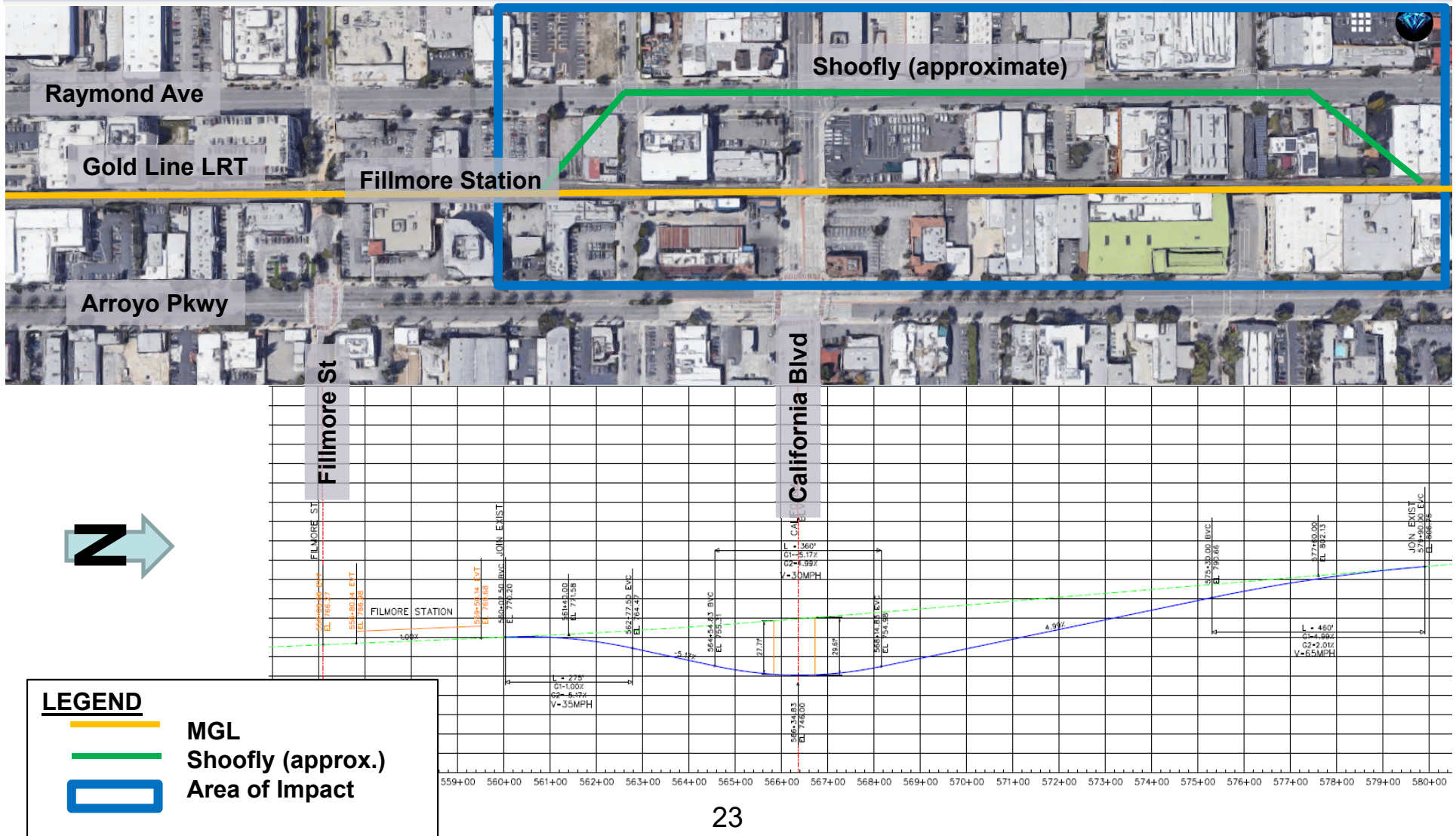
- Vertical profile of California Blvd remains nominally unchanged
- Rail alignment would be raised 24ft at California Blvd
- Require vertical alignment to begin transition approximately 1500ft south of California Blvd
- Fillmore Station would be reconstructed and raised by 9ft
- Anticipated that raising Fillmore Station would impact passenger ingress/egress to the station and impact access to cul-de-sac that provides access to businesses east of the station





# Alternative 2: Underground

Department of Transportation







## Alternative 2: Underground

Department of Transportation

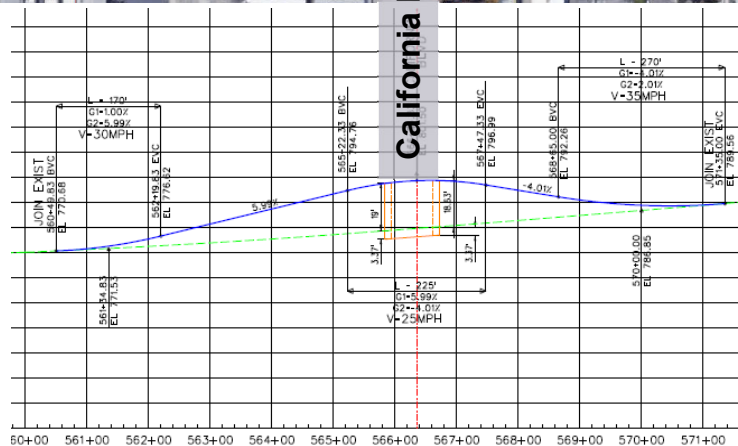
- Vertical profile of California Blvd remains nominally unchanged
- Rail alignment would be depressed 30ft crossing California Blvd in an underground configuration
- North of California Blvd, track will require approximately 1300ft to join current elevation
- Fillmore Station would not require reconstruction
- Del Mar Station would not be impacted
- Lowering the track would have significant utility impacts – including relocation of 45-in City storm drain and 54-in LA County storm drain
- Estimated to have a long construction schedule





# Alternative 3: Hybrid

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## LEGEND

- MGL
- Shoofly (approx.)
- Area of Impact





## Alternative 3: Hybrid

Department of Transportation

- Vertical profile of California Blvd would be lowered 3.5 ft at the grade crossing
- Rail alignment would be raised 19ft above existing grade
- By lowering California Blvd, the length of transition for the elevated tracks is shortened
- Fillmore Station would not require reconstruction
- Rail elevation would connect to existing tracks north of Fillmore Station
- Some underground utilities will still require relocation
- Alternative 3 was identified for ROW impact and ROM development





# Operational Constraints

Department of Transportation

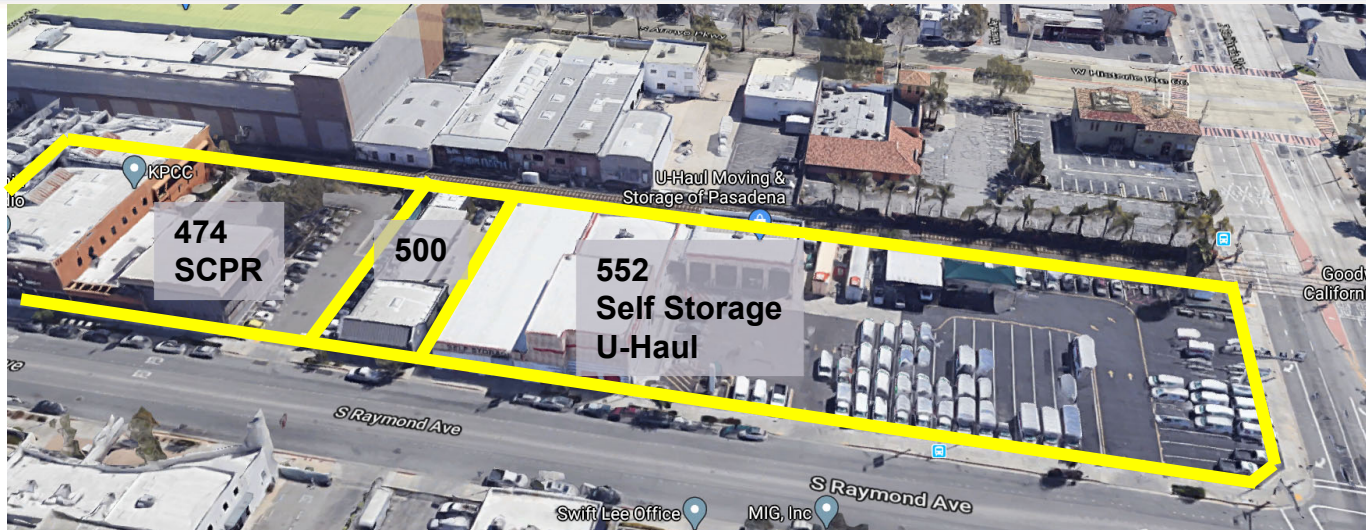
- **Single track operation not an option**
  - > Long-term bus bridge or adjacent rail alignment (Shoofly) is required
- **Bus Bridge**
  - > High Ridership
  - > Del Mar Station to South Pasadena Station
  - > Eliminates Access to Monrovia Rail Yard
- **Shoofly – adjacent rail alignment**
  - > Raymond Ave – Fillmore Station to Bellevue Dr
  - > Requires property acquisition
  - > Requires lane reduction on Raymond Ave
  - > Includes temporary crossings for businesses
  - > Bus bridge would be needed during cutover to Shoofly





# Potential Property Impacts – Alternative 3

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Potential properties impacts for Shoofly and Construction Staging

## North End

- 474 S Raymond (SCPR)
- 500 S Raymond
- 552 S Raymond (Self Storage) (U-Haul)



## South End

- 630 S Raymond (Medical Bldg)
- 650 S Raymond
- Parking Lots

Efforts will be made to reduce property acquisition