

Redesigning the Loop *Safe Streets Downtown*

Traffic Operations &
Diversion Analysis

January 9, 2026

Fehr & Peers **H HAYWARD**



Source:
Downtown
Specific Plan

How do the options perform from a traffic operations standpoint?

Evaluation Workstream

Purpose

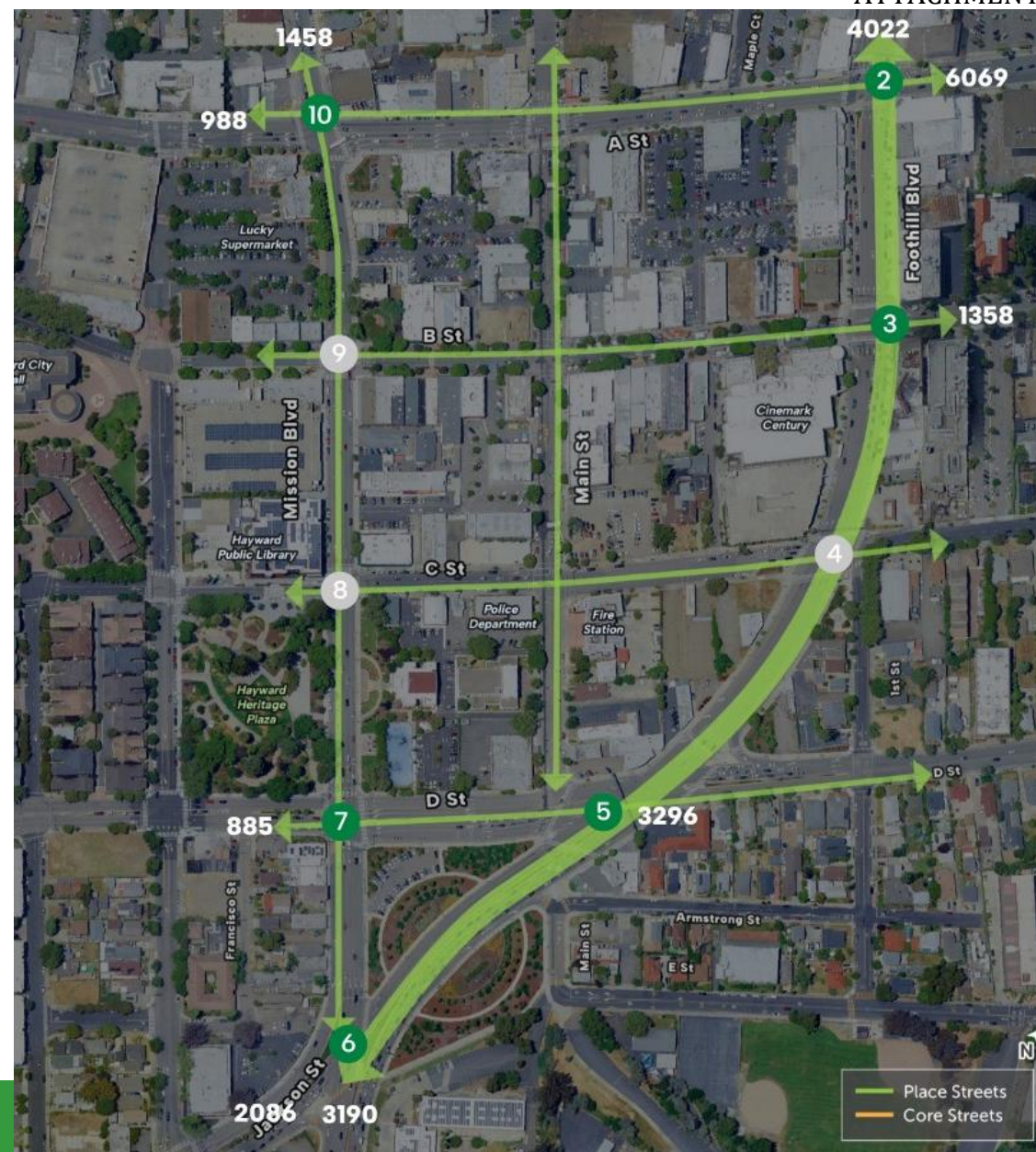
**Summarize preliminary
Synchro findings for Options
1 and 2**

**Inform next steps of
operational analysis and
alternative refinement**

Routing and Volume Assumptions

Step 1

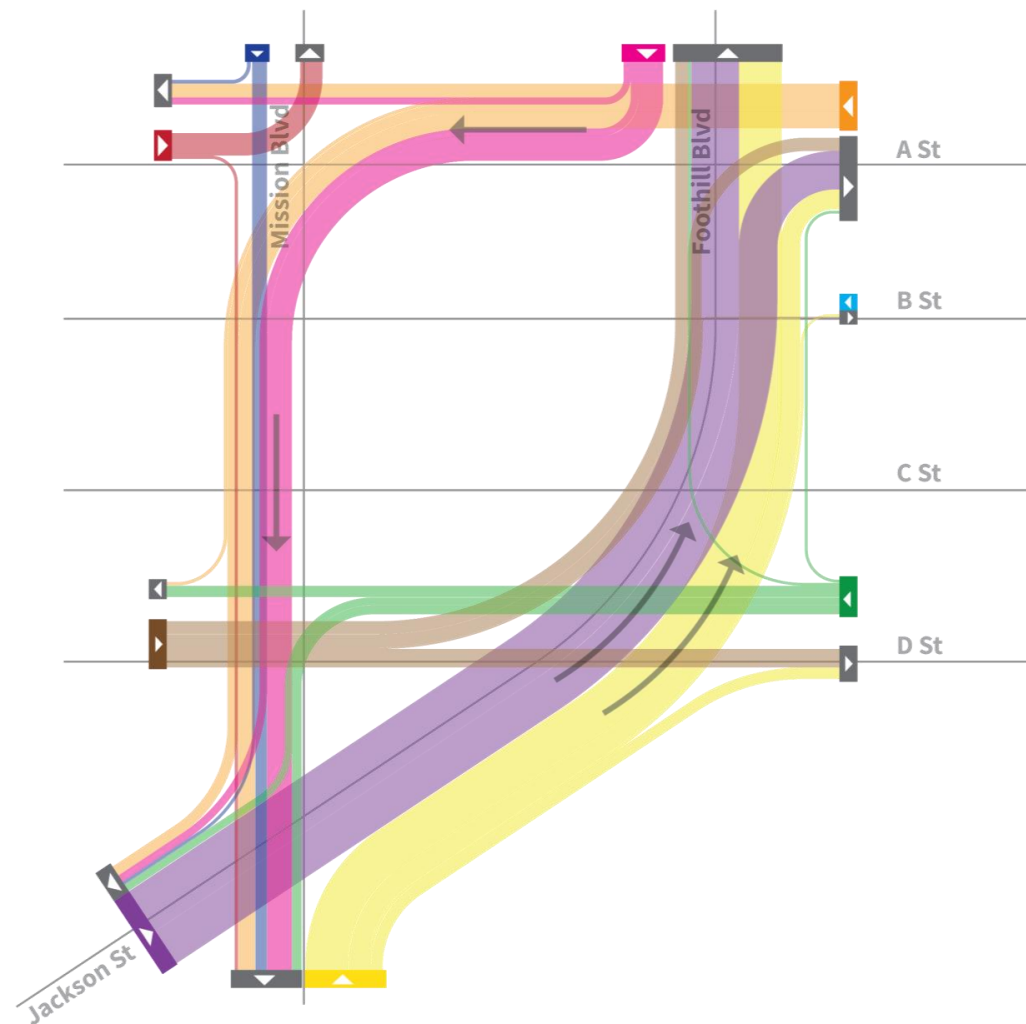
- Identify total volumes entering the Loop at key points
- Counts collected at most points - these serve as control totals
- ADT collected on parallel blocks of Foothill & Mission - these serve as control totals for the total north and south bound traffic under 2-way operation



Routing and Volume Assumptions

Step 2 - Route Traffic

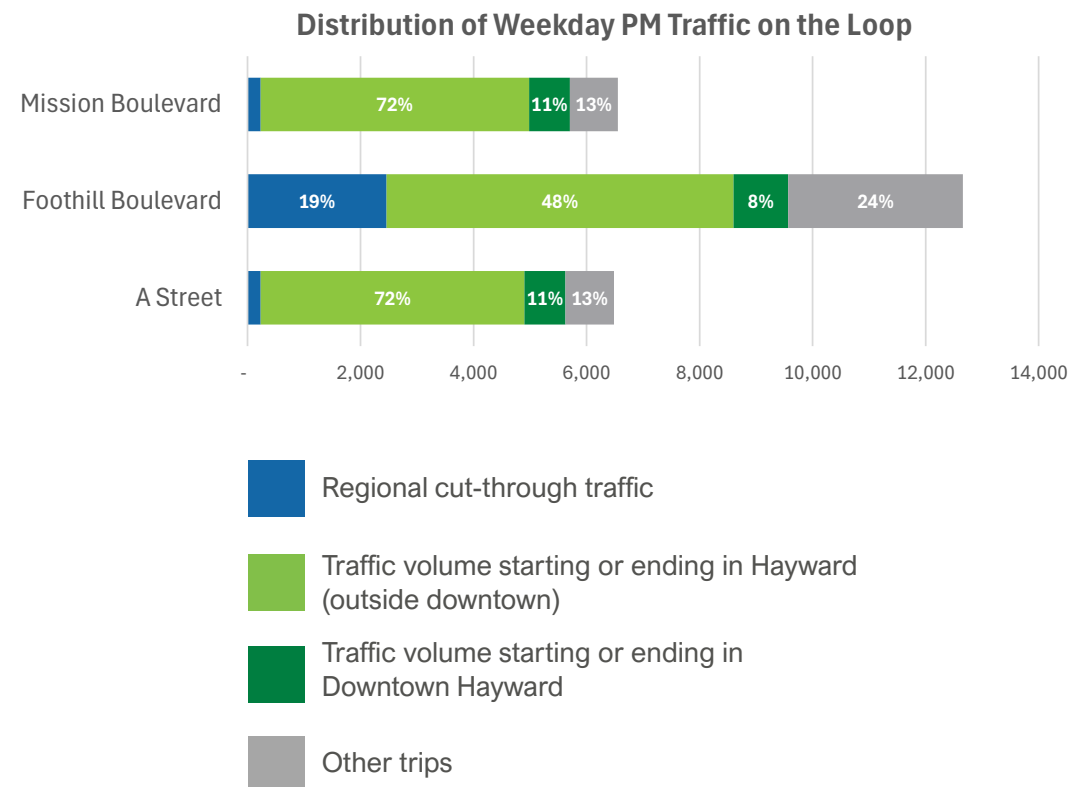
- Route traffic onto the network using the OD pattern from Streetlight
- Balance volumes across road (e.g., split Foothill NB onto Foothill & Mission considering available capacity)
- Assumed drivers prefer the most direct/least cost path (i.e., people don't go out of their way)



Routing and Volume Assumptions

Step 3 - Through Traffic Reduction

- Evaluate potential for through traffic to use other routes
 - About 20% of traffic is through
 - Also evaluated 10% reduction
- Removed traffic traveling between Foothill Blvd/A St and Jackson/Mission/Foothill
 - No changes to traffic entering on B, C, or D streets)



Other Signal Assumptions

Signal Timing

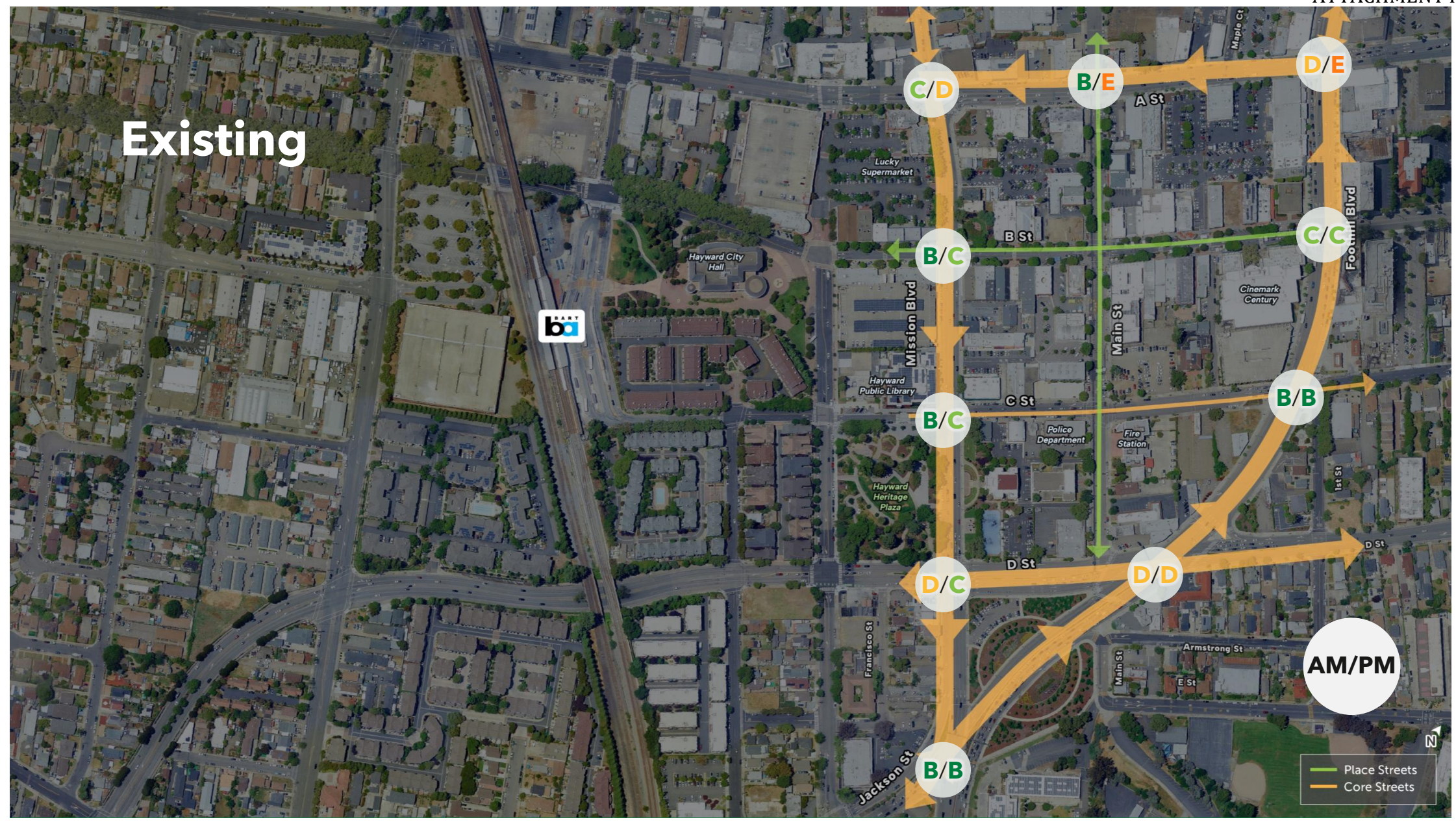
- Revise cycle lengths to 90/120 seconds where it can be accommodated with the additional phases
- Does not account for shorter pedestrian crossings to show a conservative analysis
- Coordination along Mission and Foothill

Protected Phasing

- Implement protected left turn phasing where there is a left turn pocket
- Implement protected right turn phasing with overlap where there is a right turn pocket
- Split phasing on B/C Street intersections for pedestrian safety

Operations Results

Existing

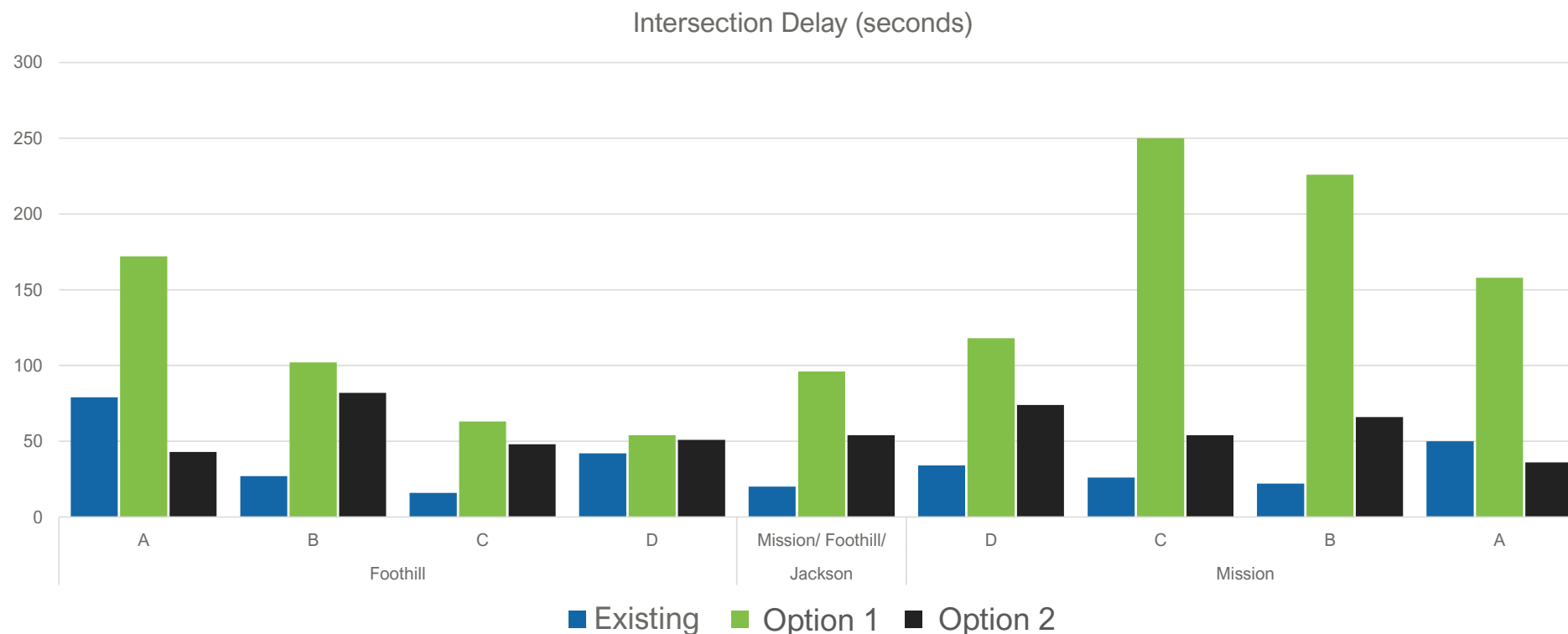


AM/PM

- Place Streets
- Core Streets

Operations Results with 0% Cut-through Traffic Reduction

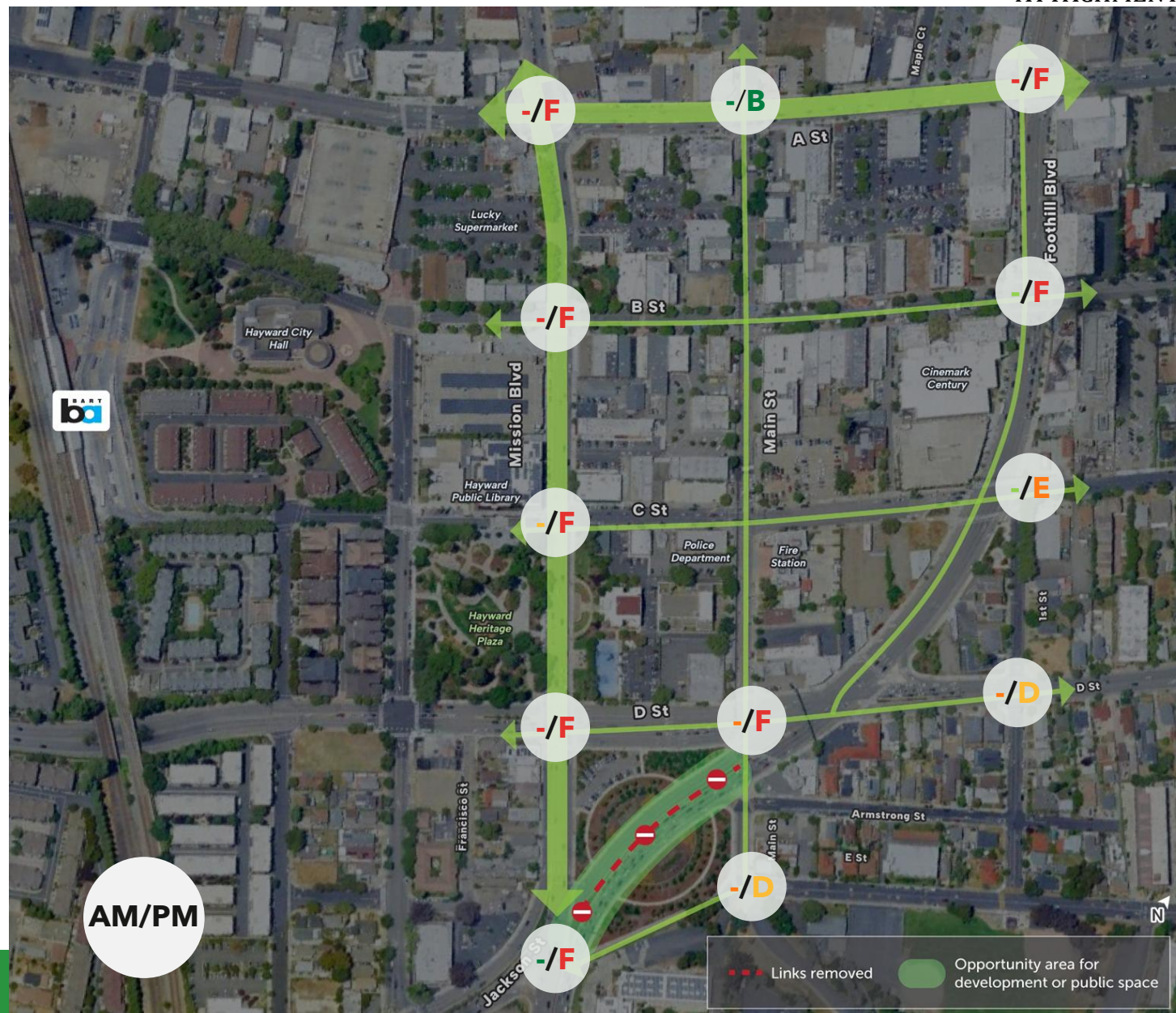
Option 2 Is Better Able to Handle the Current Traffic Volumes on the Loop



Note: Delay at new intersection at Main St and D St (added in Option 1) is not shown but is expected to experience nearly 600 seconds of delay. 11

Option 1: Downtown Grid (0% Reduction)

- Most intersections perform at LOS F in the PM peak hour
- Mission Blvd is especially challenged to carry the traffic with Foothill Blvd reduced to less capacity
- The new connection from Jackson St to E St attracts substantial traffic, creating significant delay at Main St and D St



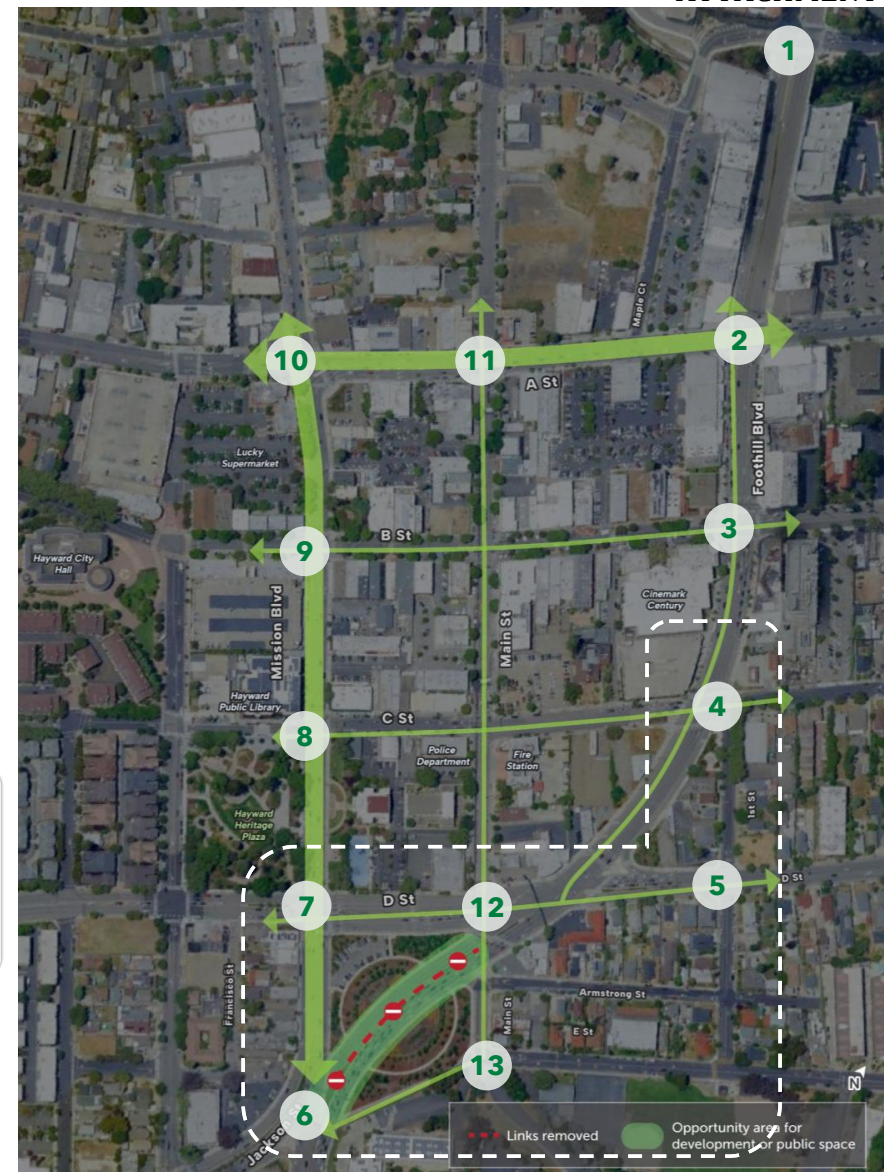
Option 1: Downtown Grid (0% Reduction)

1. Foothill Blvd/City Center Dr	2. Foothill Blvd/A St	3. Foothill Blvd/B St	4. Foothill Blvd/C St	5. Foothill Blvd/D St
6. Jackson St/Mission Blvd	7. Mission Blvd/D St	8. Mission Blvd/C St	9. Mission Blvd/B St	10. Mission Blvd/A St
11. Main St/A St	12. Main St/D St	13. Main St/E St		

LEGEND

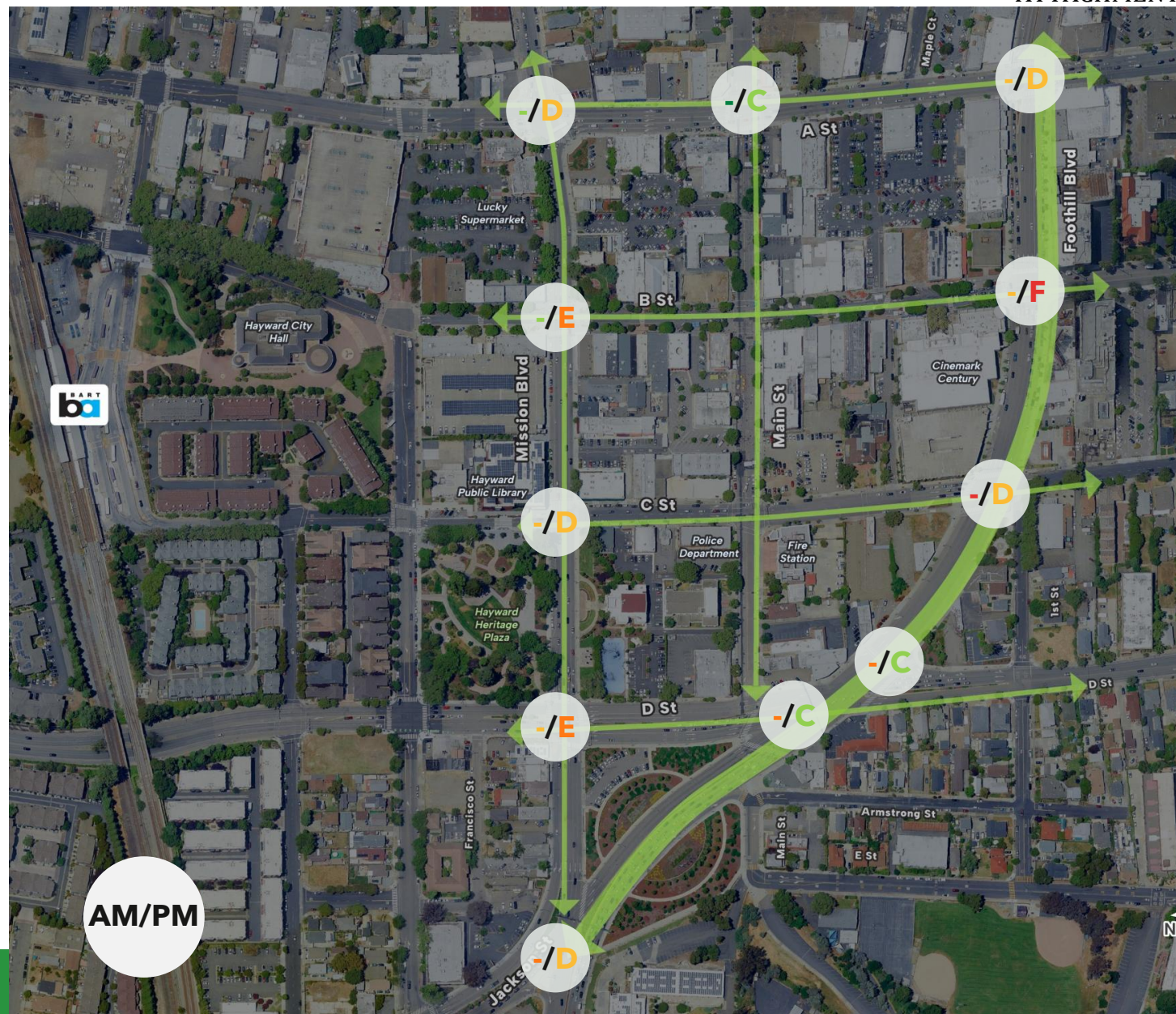
- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- ↑ Lane Configuration
- Stop Sign
- 🚦 Signalized

Intersection locations and geometries may change based on design sub-options



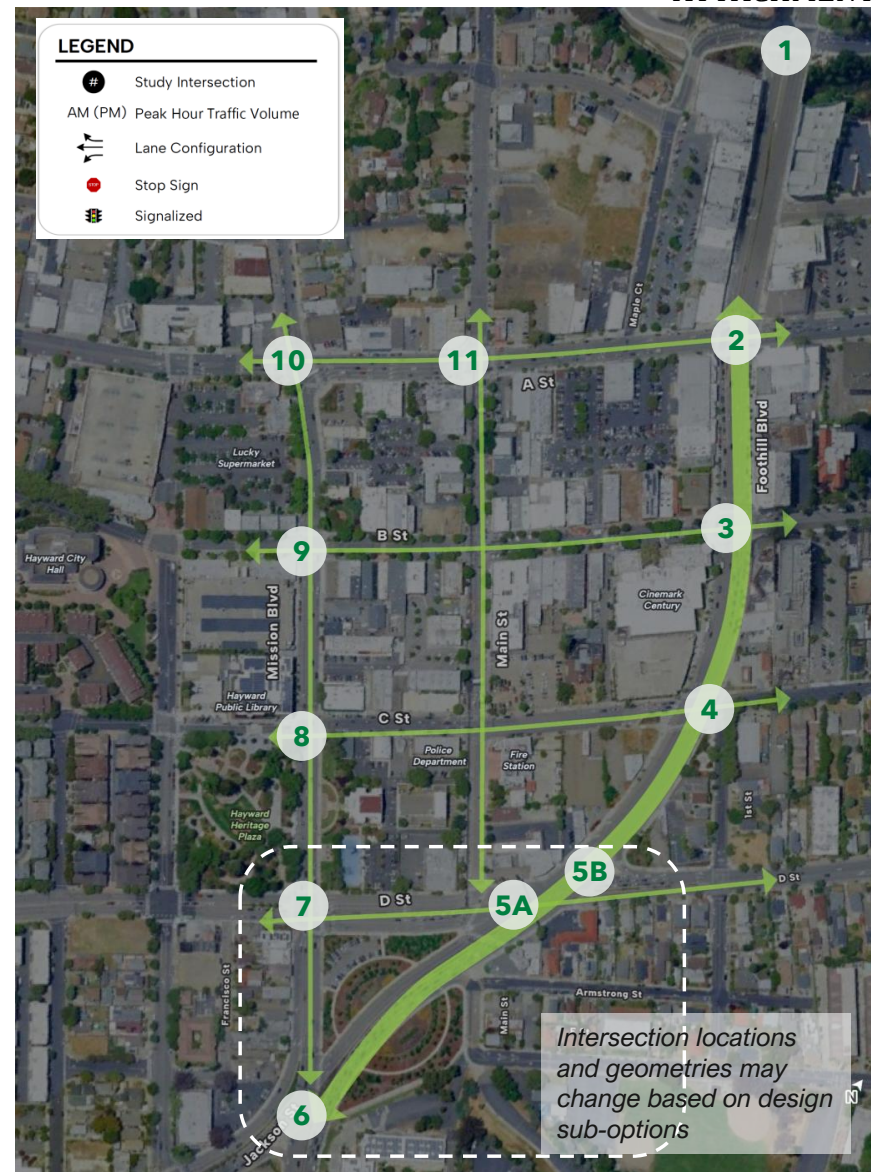
Option 2: Current Alignment (0% Reduction)

- Most intersections operate at an acceptable level of service (LOS D/E) in the PM peak hour.
- Foothill Blvd and B St operates at LOS F, but is just above the delay threshold for LOS F.
- Delay can be managed with signal design.



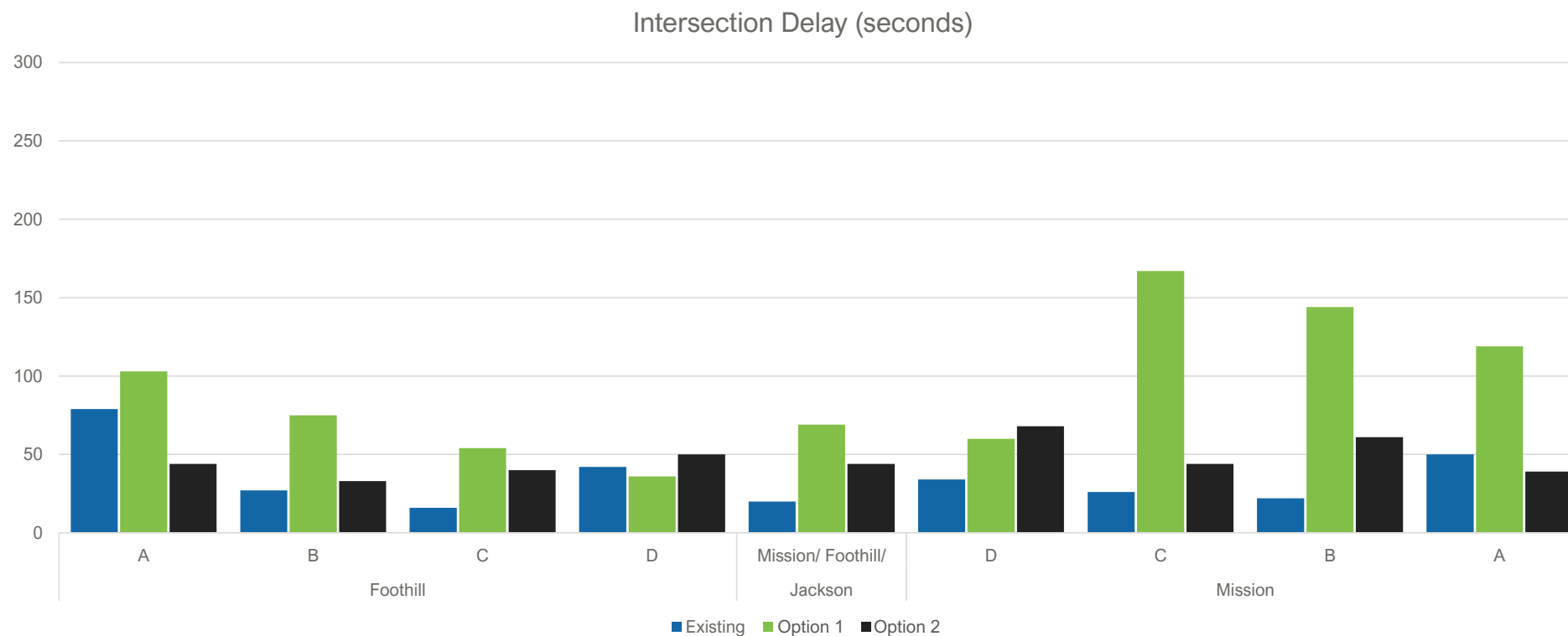
Option 2: Current Alignment (0% Reduction)

<p>1. Foothill Blvd/City Center Dr</p>	<p>2. Foothill Blvd/A St</p>	<p>3. Foothill Blvd/B St</p>	<p>4. Foothill Blvd/C St</p>
<p>5A. Foothill Blvd/D St</p>	<p>5B. Foothill Blvd/D St</p>	<p>6. Jackson St/Mission Blvd</p>	<p>7. Mission Blvd/D St</p>
<p>8. Mission Blvd/C St</p>	<p>9. Mission Blvd/B St</p>	<p>10. Mission Blvd/A St</p>	<p>11. Main St/A St</p>



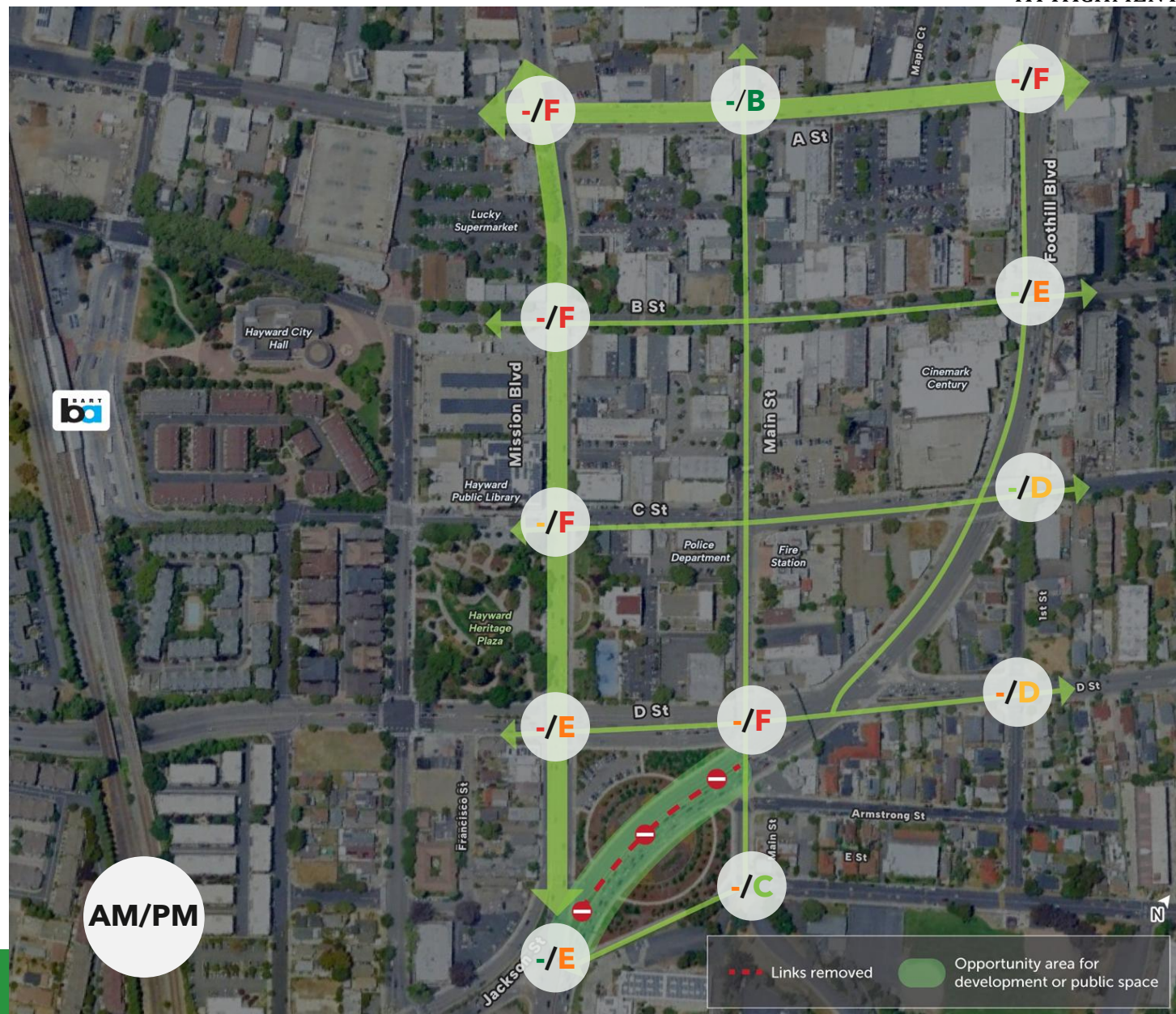
Operations Results with 20% Cut-through Traffic Reduction

Option 2 Continues to Show Significantly Less Delay Under the 20% Reduction Scenario



Option 1: Downtown Grid (20% Reduction)

- Multiple intersections perform at LOS E/F; operations degrade due to additional phases.
- Mission Blvd continues to perform much worse than Foothill Blvd, even with travel balanced across the corridors.
- Main St and D St continues to show significant delay.



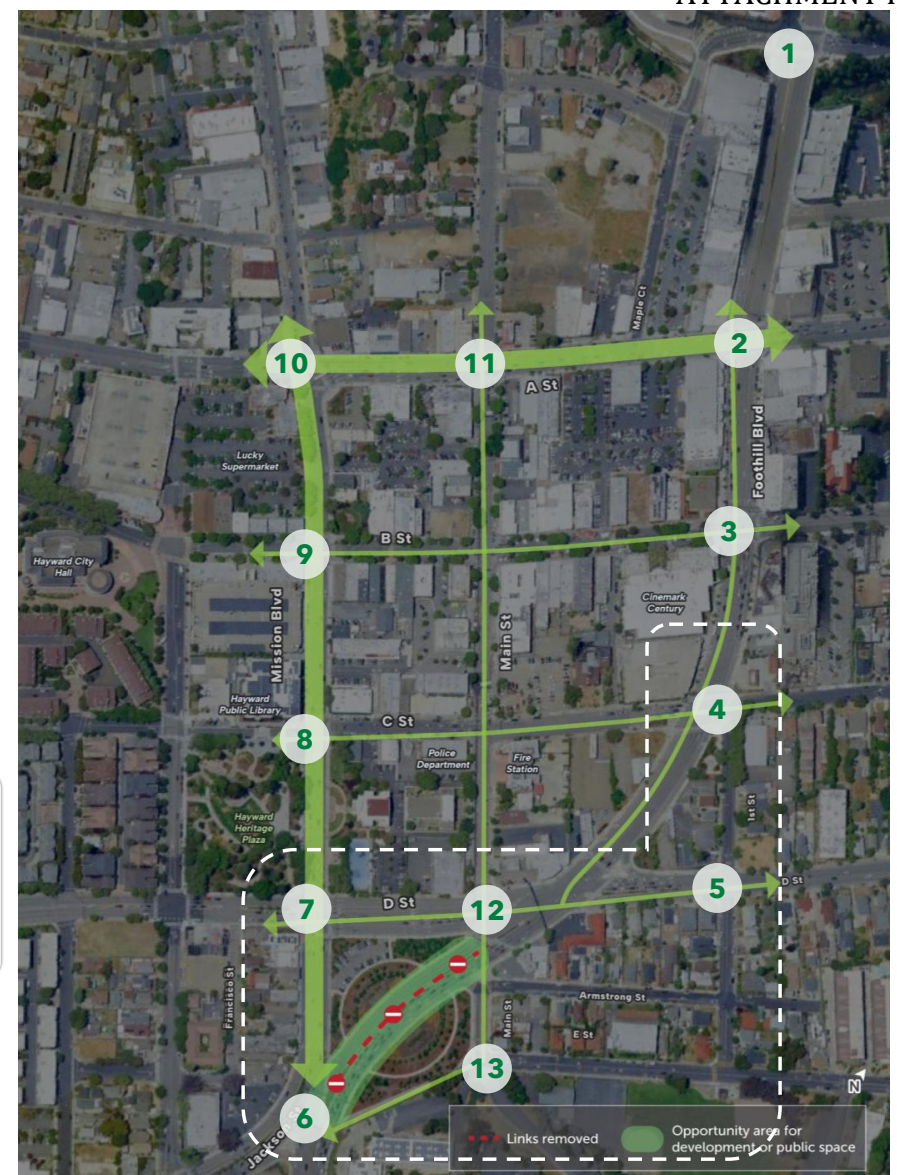
Option 1: Downtown Grid (20% Reduction)

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11. Main St/A St 	12. Main St/D St 	13. Main St/E St 		

LEGEND

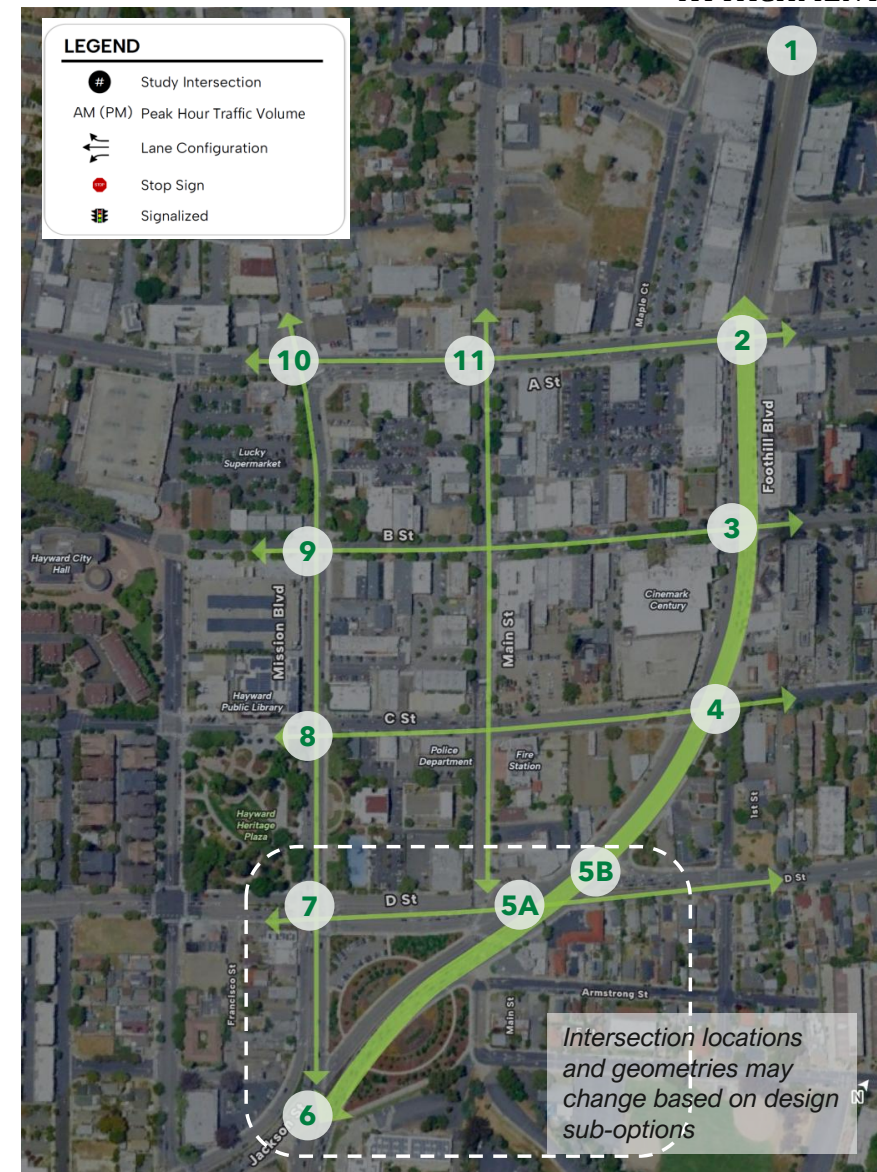
- # Study Intersection
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- Lane Configuration
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Intersection locations and geometries may change based on design sub-options



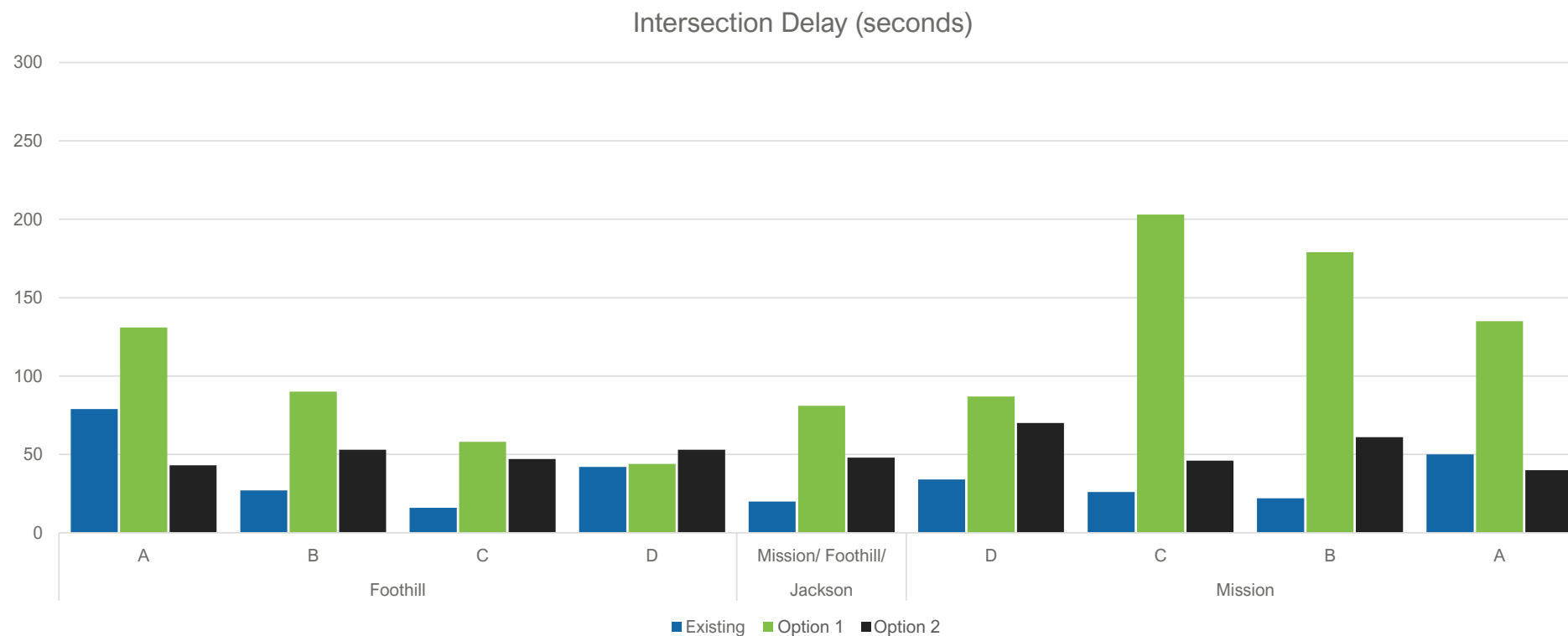
Option 2: Current Alignment (20% Reduction)

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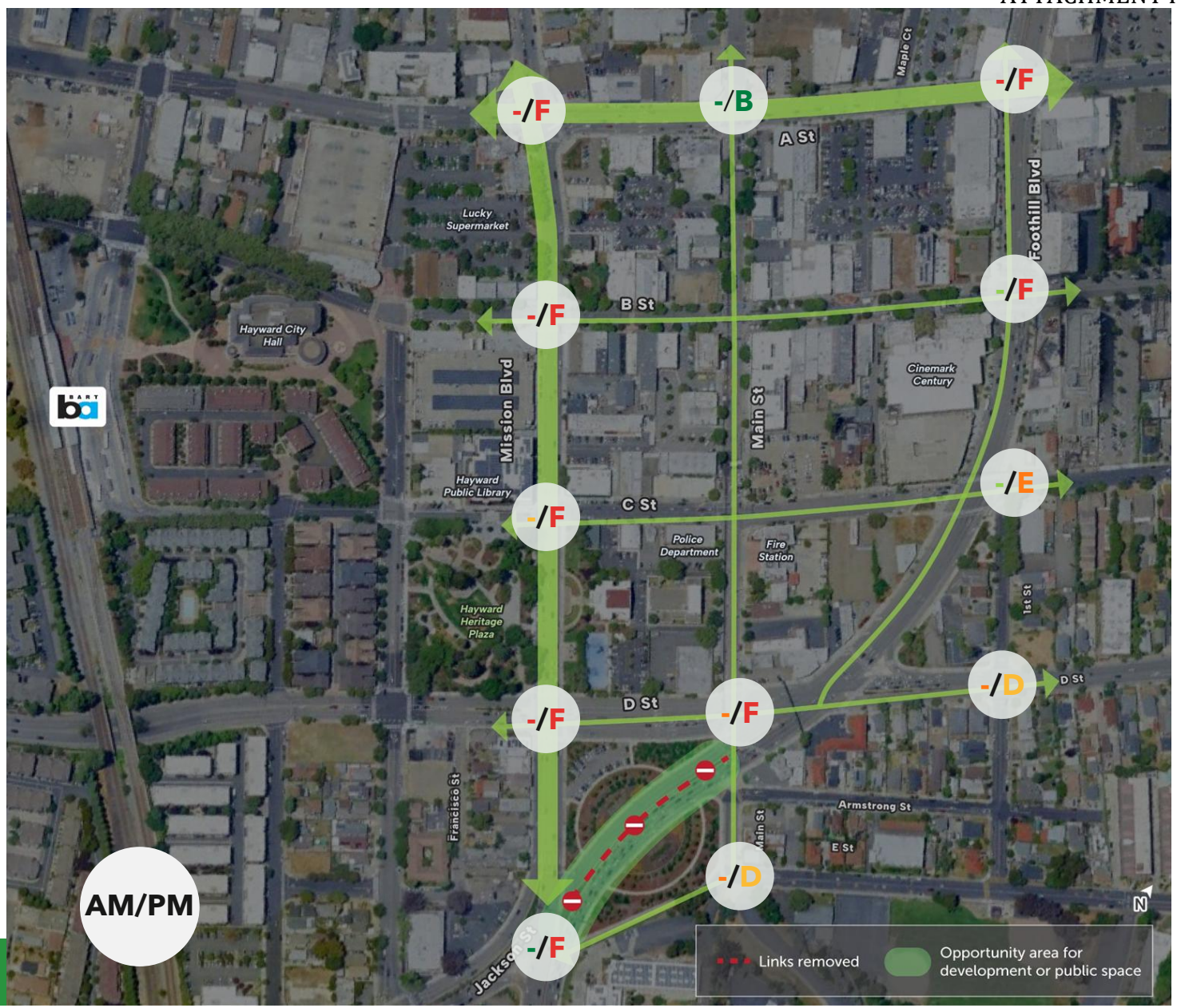
Operations Results with 10% Cut-through Traffic Reduction

Option 2 Continues to Show Significantly Less Delay Under the 10% Reduction Scenario



Option 1: Downtown Grid (10% Reduction)

- No difference from 20% reduction



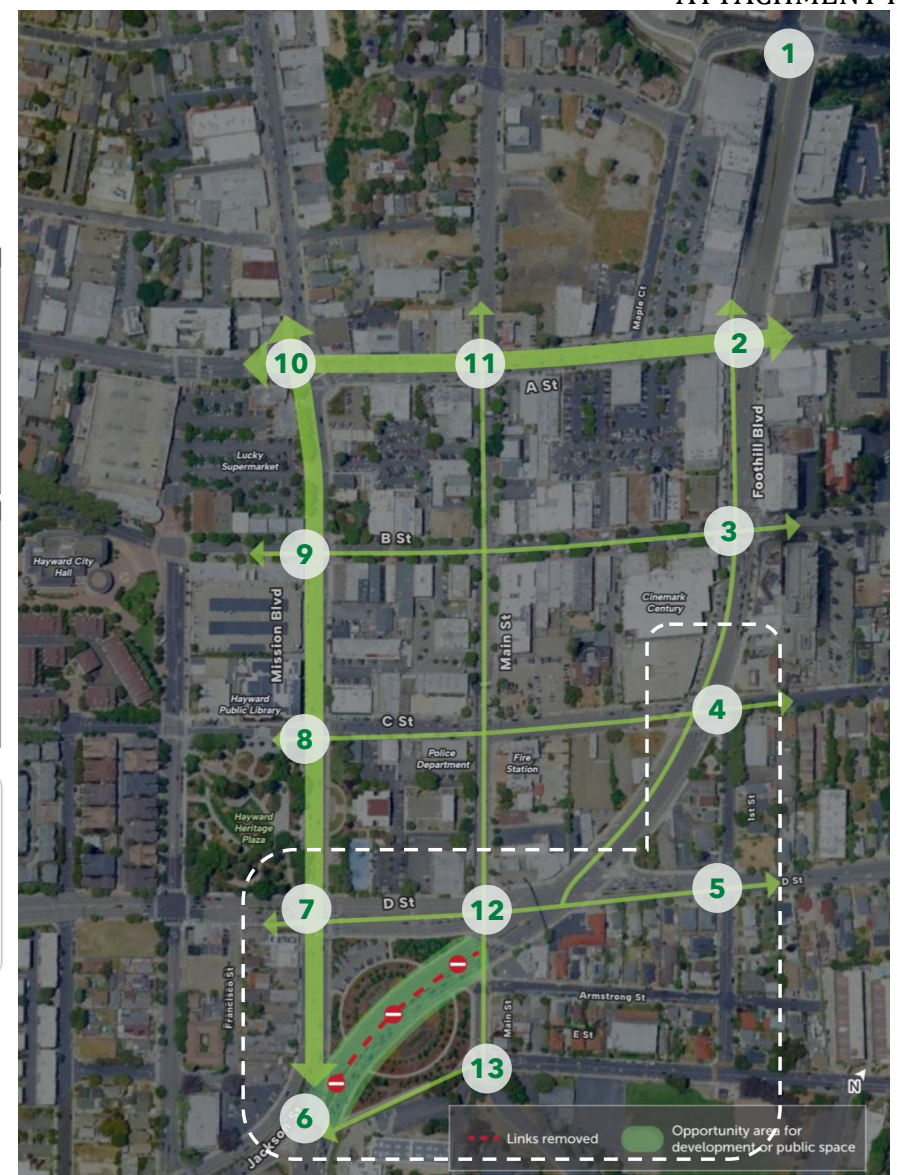
Option 1: Downtown Grid (10% Reduction)

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11. Main St/A St	12. Main St/D St	13. Main St/E St		

LEGEND

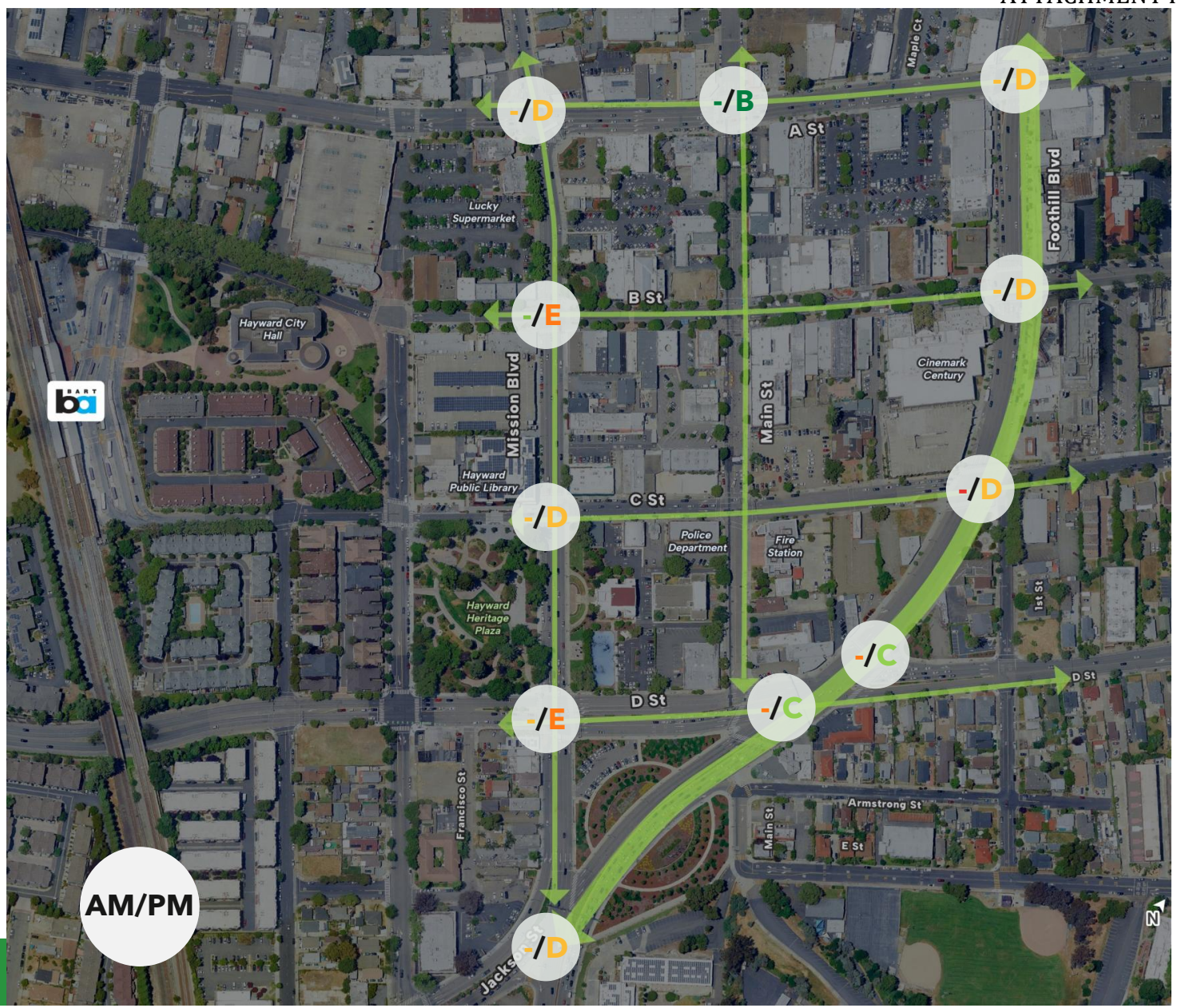
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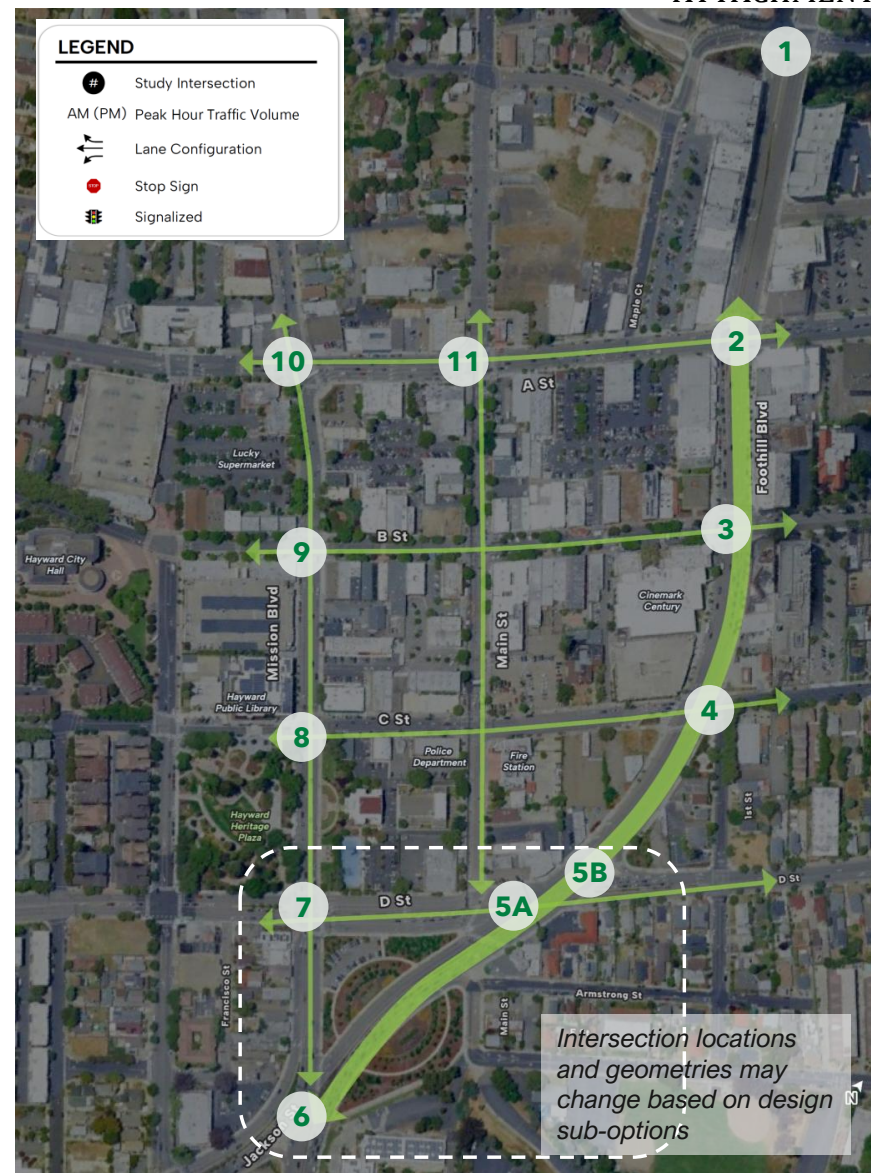
Option 2: Current Alignment (10% Reduction)

- No difference from 20% reduction



Option 2: Current Alignment (10% Reduction)

<p>1. Foothill Blvd/City Center Dr</p>	<p>2. Foothill Blvd/A St</p>	<p>3. Foothill Blvd/B St</p>	<p>4. Foothill Blvd/C St</p>
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**What is the risk of traffic
diversion with Safe
Streets Downtown?**

Diversion Risk Process

Process

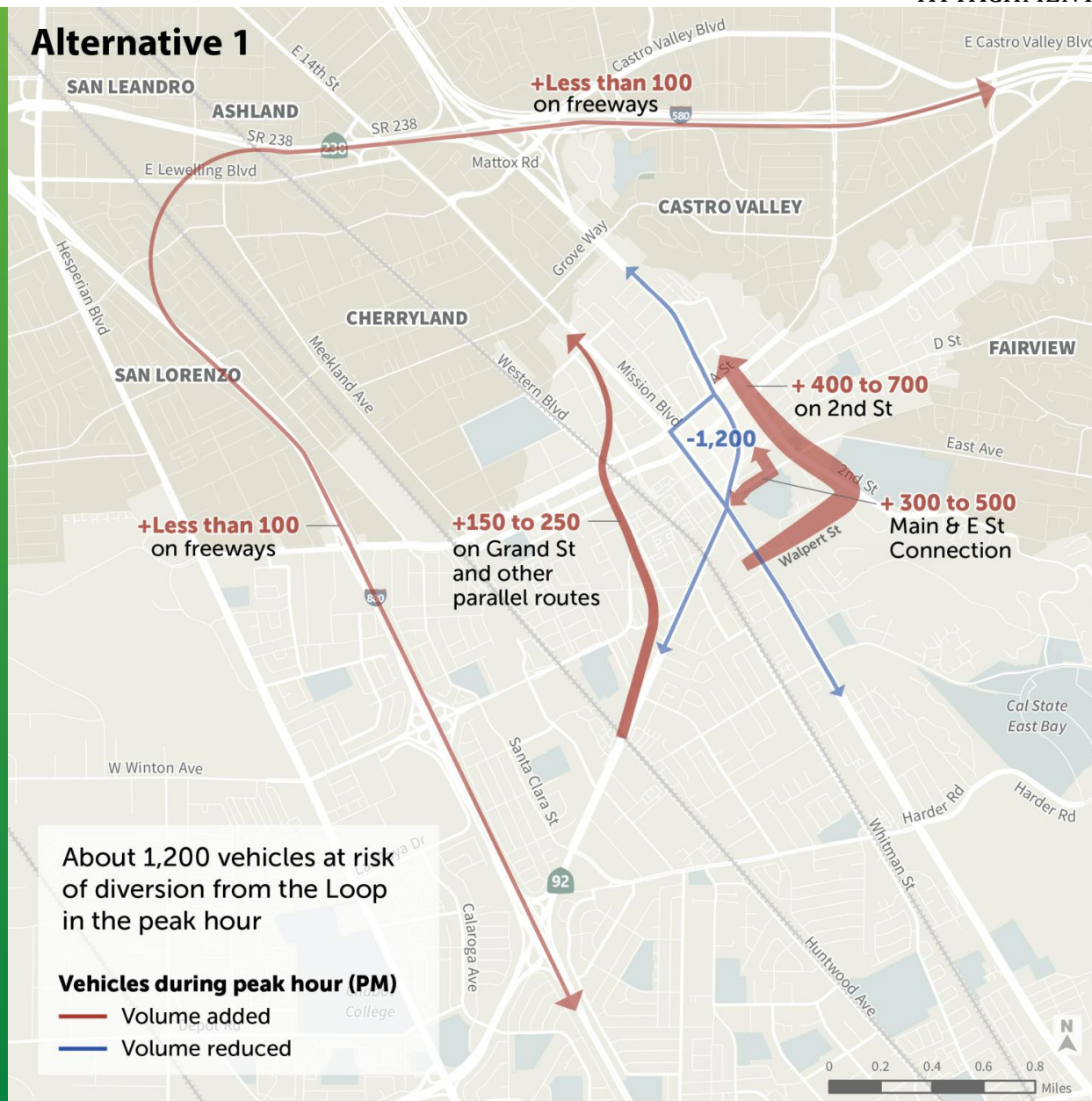
- AlaCC Travel Demand model used to evaluate potential diversion risk
- Scenario based on today
- Each option coded as defined
- Does not include potential changes to B St and C St, except for making them 2-way

Model Limitations

- Does not consider intersection operations
- Identifies general travel pattern changes, but is less accurate at estimating volume changes on specific streets

Option 1

- Potential diversion risk of up to 1,200 vehicles (NB peak)
- Most uses new grid connection from Jackson to E St
- Large increase in traffic expected on 2nd St (or nearby streets)
- Diversion risk is high due to poor intersection performance of the loop



Option 2

- Potential diversion risk of up to 1,200 vehicles (NB peak)
- 2/3 on streets west of the Loop (mostly Grand Ave)
- 1/3 on 2nd St (east)
- Significant need for complete streets on 2nd and Grand - Option 3 can handle today's traffic

