Mace Boulevard
Community Meeting
October 24, 2019
Study Overview

Where:
• Mace Boulevard between Montgomery Avenue and Interstate 80

When:
• Thursday and Friday afternoons and evenings

What:
• Understand multimodal traffic operations and identify potential modifications
Evaluation Criteria

• Travel time savings
  – Local travel within Davis
    (Montgomery Ave to Chiles Rd)
  – Local travel to I-80
    (Montgomery Ave to Freeway)
  – Regional cut through to I-80
    (1200 ft. south of Montgomery to Freeway)

• Emergency vehicle access
• Construction impacts
• Cost
12 Alternatives Evaluated

• Three primary improvement strategies
  – New traffic signals to improve access from side streets and to control flow of through traffic
  – Additional lanes to increase capacity at intersections and allow drivers to bypass queues
  – Modifications to the Mace/I-80 Interchange ramp metering
# Evaluation Criteria

<table>
<thead>
<tr>
<th>Existing Congested Conditions</th>
<th>Corridor Alternatives</th>
<th>Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy traffic with higher delay</td>
<td>Alt. 1: Signalize Montgomery Ave</td>
<td><strong>Cost</strong> $</td>
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<tr>
<td></td>
<td>Alt. 2: Signalize San Marino Dr</td>
<td><strong>Cost</strong> $</td>
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<tr>
<td></td>
<td>Alt. 3: Signalize N El Macero Dr</td>
<td><strong>Cost</strong> $</td>
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<tr>
<td></td>
<td>Alt. 4: Alt. 1 and Alt. 2</td>
<td><strong>Cost</strong> $</td>
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<td>Alt. 5: Alt. 1 and Alt. 3</td>
<td><strong>Cost</strong> $</td>
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<td></td>
<td>Alt. 6: Change Mace Blvd to prior configuration</td>
<td><strong>Cost</strong> $$</td>
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<tr>
<td></td>
<td>Alt. 7: Construct NB right-turn lane at Cowell Blvd</td>
<td><strong>Cost</strong> $$$</td>
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<td>Alt. 8: Construct two NB lanes north of N El Macero Dr</td>
<td><strong>Cost</strong> $$$</td>
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<td>Alt. 9: Alt. 7 and Alt. 8</td>
<td><strong>Cost</strong> $$$</td>
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<tr>
<td></td>
<td>Alt. 10: Alt. 7 and Alt. 8</td>
<td><strong>Cost</strong> $$$</td>
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<td></td>
<td>Alt. 11: Install HOV ramp meters for EB I-80</td>
<td><strong>Cost</strong> $</td>
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<tr>
<td></td>
<td>Alt. 12: Alt. 8 and Alt. 11</td>
<td><strong>Cost</strong> $</td>
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</tbody>
</table>

## Corridor Travel Time Change (mm:ss)

- **Local travel to Davis destinations (Montgomery Ave to Chiles Rd)**
  - 6:08: +0:41
  - 11:51: -1:25
  - 12:32: +0:41

- **Local travel to I-80 (Montgomery Ave to I-80)**
  - 6:08: -1:26
  - 11:51: -1:26
  - 12:32: -1:26

- **Regional cut through travel to I-80 (1200 ft south of Montgomery Ave to I-80)**
  - 6:08: -1:26
  - 11:51: -1:26
  - 12:32: -1:26

## Evaluation Criteria

- **SB Emergency Vehicle Access**
  - --

- **Construction Impacts**
  - -- Low
  - -- Low
  - -- Med.
  - -- Low
  - -- Med.
  - -- High
  - -- Med.
  - -- Med.
  - -- High
  - -- High
  - -- Low
  - -- High

- **Cost**
  - -- $
## Corridor Travel Times

<table>
<thead>
<tr>
<th>Existing Conditions</th>
<th>Corridor Alternatives</th>
<th>Alt. 1</th>
<th>Alt. 2</th>
<th>Alt. 3</th>
<th>Alt. 4</th>
<th>Alt. 5</th>
<th>Alt. 6</th>
<th>Alt. 7</th>
<th>Alt. 8</th>
<th>Alt. 9</th>
<th>Alt. 10</th>
<th>Alt. 11</th>
<th>Alt. 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Flow</td>
<td>Light traffic</td>
<td>1:00</td>
<td>0:45</td>
<td>0:56</td>
<td>0:57</td>
<td>2:01</td>
<td>2:05</td>
<td>2:05</td>
<td>2:54</td>
<td>1:56</td>
<td>1:06</td>
<td>1:55</td>
<td>2:07</td>
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<tr>
<td></td>
<td>with minimal delay</td>
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<td>with higher delay</td>
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</table>

- **I-80 EB Ramps**
  - 1:00
  - 0:45
- **Chiles Rd**
  - 0:45
  - 0:56
  - 1:05
  - 1:01
  - 1:45
  - 1:05
  - 1:05
  - 1:45
  - 2:01
  - 2:05
  - 2:05
  - 2:54
  - 1:56
  - 1:06
  - 1:55
  - 1:22
  - 1:22
  - 1:22
  - 2:21
- **Cowell Blvd**
  - 0:30
  - 1:42
  - 1:37
  - 1:41
  - 1:22
  - 2:03
  - 3:15
  - 1:46
  - 0:58
  - 2:37
  - 2:21
  - 2:21
  - 2:21
- **N El Macero Dr**
  - 0:28
  - 1:43
  - 1:30
  - 1:58
  - 0:49
  - 2:04
  - 0:44
  - 1:43
  - 0:53
  - 0:42
  - 0:53
  - 1:01
  - 1:53
  - 1:01
- **San Marino Dr**
  - 0:47
  - 0:57
  - 1:00
  - 1:37
  - 1:05
  - 1:46
  - 1:26
  - 0:54
  - 1:05
  - 0:57
  - 0:57
  - 1:04
  - 1:53
  - 1:01
- **Montgomery Ave**
  - 0:37
  - 0:41
  - 2:47
  - 0:40
  - 0:40
  - 3:24
  - 3:08
  - 0:40
  - 0:41
  - 0:41
  - 2:53
  - 0:40
  - 0:41
- **1,200 ft south of Montgomery Ave**
  - 0:37
  - 0:41
  - 2:47
  - 0:40
  - 0:40
  - 3:24
  - 3:08
  - 0:40
  - 0:41
  - 0:41
  - 2:53
  - 0:40
  - 0:41
General Findings

• Three primary improvement strategies
  – A new traffic signal at Montgomery Ave would be most effective at creating gaps in NB traffic
  – An additional NB lane would improve local access, but may induce additional regional cut through traffic
  – Modifications to the Mace/I-80 interchange ramp metering would slightly increase travel times on Mace Boulevard, but has the potential to reduce freeway congestion and lessen regional cut through traffic
Existing Conditions

**Existing Conditions Diagram**

- **Sidewalk:** 8’
- **Bikeway:** 8’
- **Lane:** 13.5’
- **Planted Median:** 14.5’
- **Lane:** 8’
- **Bikeway:** 8’
- **Sidewalk:** 7.5’
- **Painted Buffer:**
Implementation

• How to add a second northbound lane and provide a low-stress bikeway
Next Steps

• Receive feedback regarding congestion improvements tonight

• Staff & consultants to continue working on options for
  – removing vertical curbs and replacing with mountable curbs to improve emergency vehicle access,
  – intersection design at Mace/Cowell,
  – intersection design and signal improvements at Mace Blvd / San Marino Dr.,
  – bikeway changes along entire corridor.

• Make recommendations to council in upcoming meeting, tentatively scheduled for mid November