Kolb Road: Sabino Canyon
Road to Sunrise Drive
Project 4KSCSD

CAC Meeting
March 29, 2017
AGENDA

- Introductions
- Project Update
  - Geotechnical Analysis
- Current Activities
  - Sidewalk Alternatives
  - Traffic Analysis
- Questions
• Field work will begin soon
  • 2 week schedule, likely beginning in May/June
  • No major traffic impacts
SIDEWALK ALTERNATIVES

- 2 Alternatives
  - Alternative 1 – West side only
  - Challenges with continuity on both sides
  - Alternative 2 – Hybrid
SIDEWALK ALTERNATIVES

- Alternative 1 – West side only
  - Fits the lay of the land
  - Keeps construction costs down
  - Not as favorable for pedestrian connectivity
SIDEWALK ALTERNATIVES

- Challenges with continuity on both sides
  - Beyond Budget
  - Widest footprint
  - Retaining walls
  - Steeper driveways
  - Challenging tie-in for Snyder
SIDEWALK ALTERNATIVES

- Alternative 2 – Hybrid
  - Costs between Alts 1 and 2
  - Places pedestrian facilities in areas of highest need
SIDEWALK ALTERNATIVES

- Recommendation – Alternative 2
- Comments/Questions on Sidewalk Alternatives?
TRAFFIC VOLUMES

HISTORIC DAILY VOLUMES

EXISTING AND PROJECTED VOLUMES

<table>
<thead>
<tr>
<th>Kolb Road Segment</th>
<th>Existing (2016) Volume (veh/day)</th>
<th>Projected 2040 Volume * (veh/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabino Canyon to Snyder</td>
<td>12,618</td>
<td>14,200</td>
</tr>
<tr>
<td>Snyder to Sunrise</td>
<td>11,747</td>
<td>13,200</td>
</tr>
</tbody>
</table>

* Based upon a projected 0.5% growth rate
Most common crashes are rear-end, single vehicle and angle crashes.

Project (center turn lane, shoulders) will improve these issues.

Hot-spot – Kolb from Sunrise to Territory.

Crash rate is 3X Average County rate (3.02 vs. 1.04 crashes/MVM).
• Crash History
  • 11 total crashes
    • 6 crashes involving drivers exiting Basha’s shopping center – at least 4 making left turns
  • No apparent visibility issues
• Busy driveway
  • Territory Dr - 1,700 veh/day
  • Basha’s driveway – 4,175 veh/day
• AASHTO Highway Safety Manual
  • Provides tools to quantify effect of improvements on roadway safety
    • Based on facility type (two-lane undivided road, four-lane road with median, unsignalized intersection, signalized intersection, etc.)
    • Considers standard locations, site-specific crash history, and traffic volumes

Used HSM Analysis to evaluate safety of alternatives in year 2040
Alt 1 - Planned project improvements

- Widen/improve shoulders
- Add street lighting
- Separate bike lane and SB right turn lane
- All movements would be allowed as they are today

<table>
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<tr>
<th>Location</th>
<th>2040 Crash Reduction (compared to no project)</th>
</tr>
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<tbody>
<tr>
<td>Kolb Rd, Territory Dr. to Sunrise Dr.</td>
<td>18%</td>
</tr>
<tr>
<td>Kolb Rd/Territory Dr Intersection</td>
<td>0% (No change)</td>
</tr>
</tbody>
</table>
SUNRISE DRIVE TO TERRITORY DRIVE
ALTERNATIVES

- Alt 2 - Prohibit left turns to/from Basha’s Driveway
  - Add raised median or porkchop at driveway
  - Extend raised median to Territory Drive
  - Left turn delays on Territory would increase to ~55s
  - Too close to signalize (<800’)

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<td>34%</td>
</tr>
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<td>Kolb Rd/Territory Dr Intersection</td>
<td>6% Increase in crashes</td>
</tr>
</tbody>
</table>
Alt 3 – Prohibit left turns to/from Basha’s and build roundabout at Territory
- Would include extending median to Territory Drive
- Roundabout would be single lane
- Delays for all movements at Kolb/Territory would be <10s

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<td>33%</td>
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• Safety Principles
  • Lower travel speeds
  • Fewer conflict points
  • Reduction of delays – driver frustration
Typical concerns are construction and right-of-way costs.

In this case:
- No right-of-way needed
- Low construction/maintenance costs
ROUNDABOUT AT TERRITORY

- Provides separation of commercial/residential areas
- Traffic Calming
- Art/character opportunity

SR 179 / Schnebly Hill (Sedona)
- Similar volumes
- Same footprint
Comments/Questions?