



Downtown Traffic Signals

Robin Osborne, Signal Engineer
Austin Transportation Department



Previous state of Downtown Timing

- Retimed 6+ years ago
- Very basic signal timings
- Evolution of Downtown
 - Lots of new development
 - Traffic patterns are changing
 - Special Events



2018 Retiming Changes

- Complete retiming effort, not just tweaks
- Considered context for each area's needs
- Addition of many pedestrian treatments
 - Leading pedestrian intervals (LPI)
 - Flashing yellow arrows (FYA)
- Reduction of cycle length in some places to reduce pedestrian delay



Feedback & Concerns Heard

- “Turning drivers aren’t yielding to pedestrians.”
- “Pedestrians should get a chance to start walking before vehicles go.”
- “The signals are showing a walk and a green arrow at the same time!” (this cannot happen)

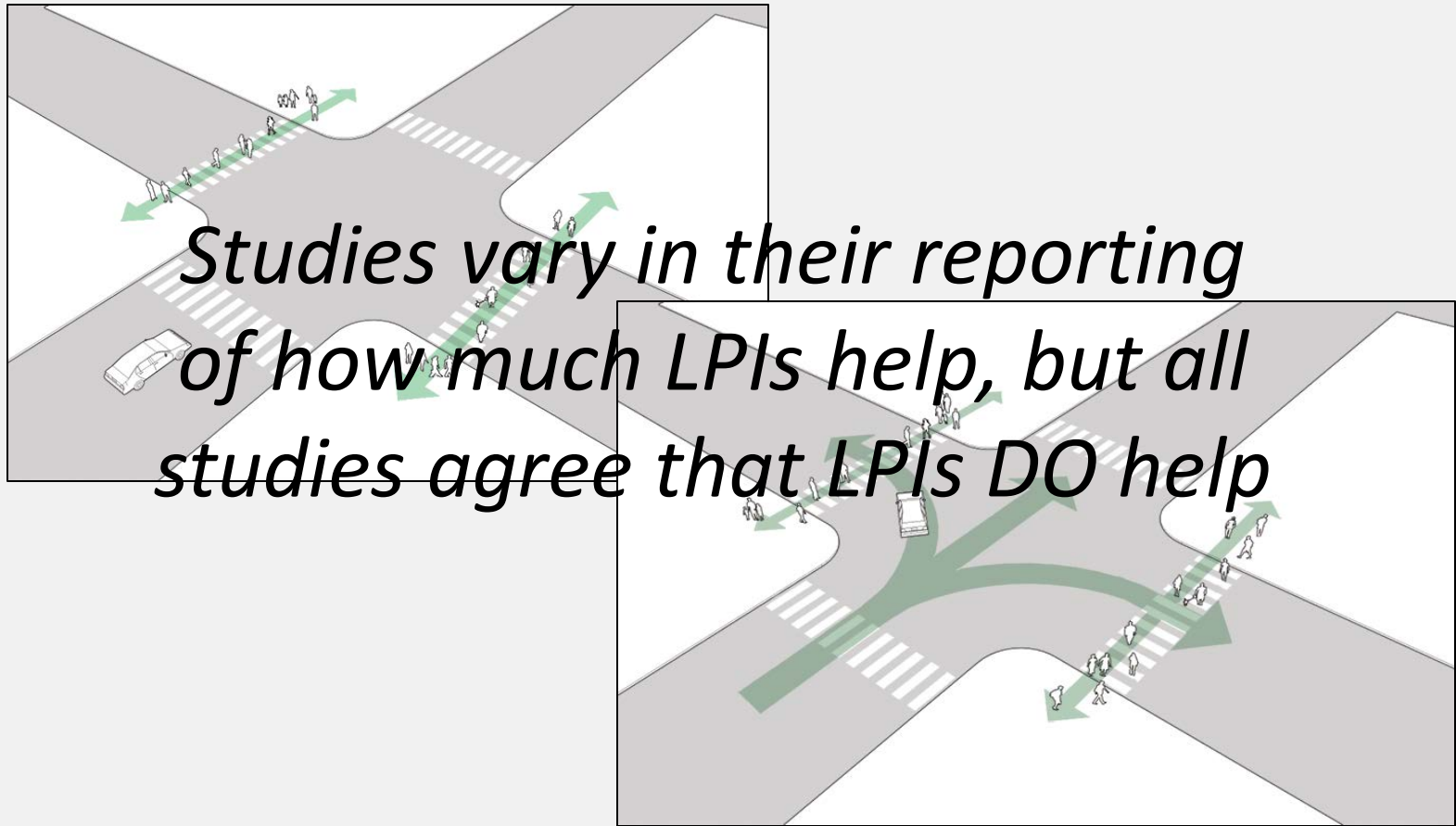


Short/Midterm Solutions

- Leading Interval
- Flashing yellow arrows (FYA) at T-Intersections
- Protected Lefts while opposing ped is active
 - Not many separated left lanes in downtown
- Education Campaign
- Enforcement



Leading Interval: What is it?



Studies vary in their reporting of how much LPIs help, but all studies agree that LPIs DO help

Leading Interval: Downtown Examples

Current

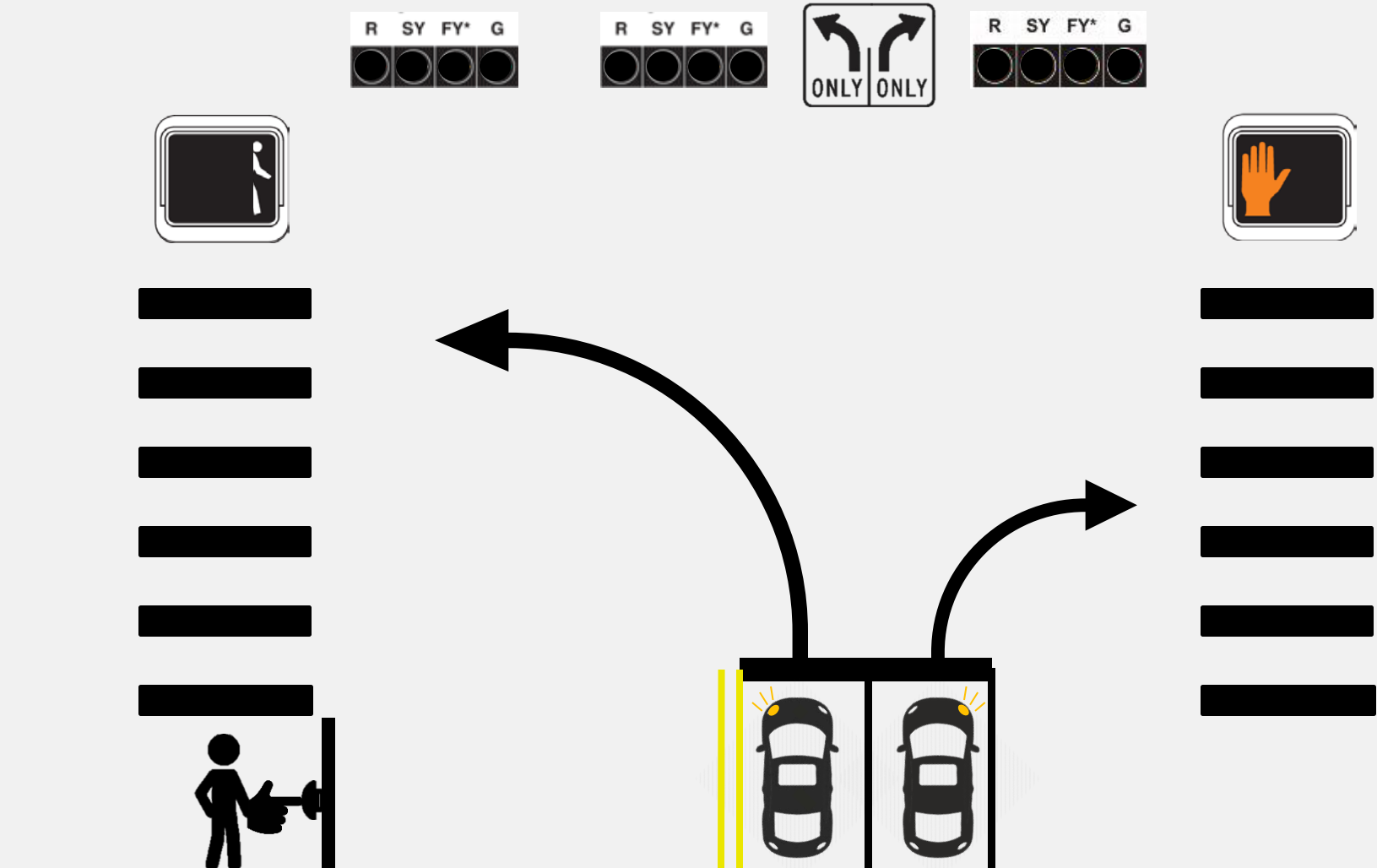
- Guadalupe & Lavaca (7th through 12th/13th)
- South Congress
- 3rd St Bikeway
- 2nd and San Antonio

Future

- Downtown Congress Ave
- UT campus area signals



FYA T-Intersection: What is it?



FYA T-Intersection: Downtown Examples

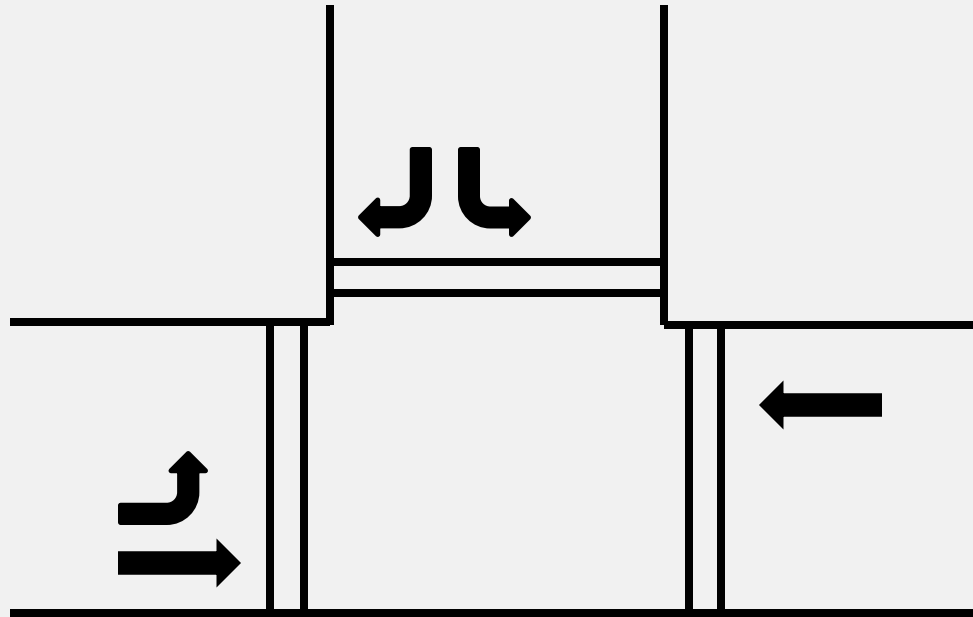
- Cesar Chavez & Colorado
- Cesar Chavez & West
- Cesar Chavez & Walter Seaholm

Researchers of one study concluded that “the FYA is a recommended indication at T-intersections where pedestrian crossings are prevalent.”

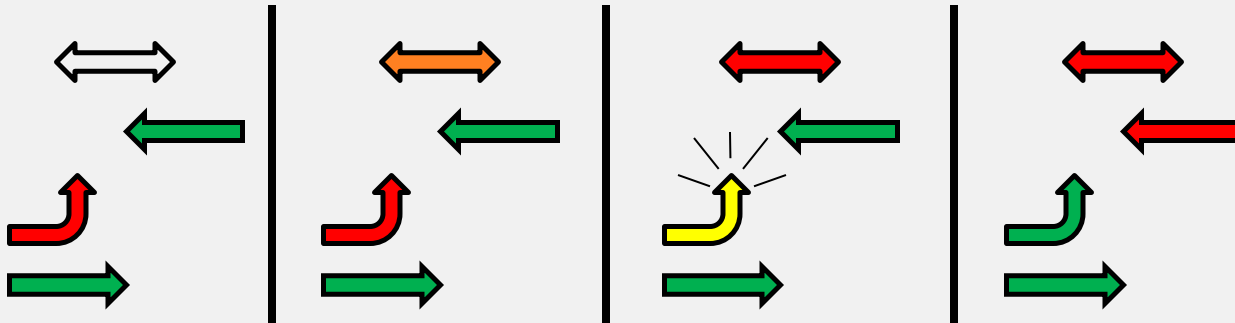
Source: <http://dx.doi.org/10.3141/1982-10>



Protected Left: What is it?



Observations show that yielding to bikes, peds, and scooters increased



Long Term Solutions

- Intersection redesign
- Converting one-way streets to two-way
- Vision Zero crash investigation and action
- Austin Strategic Mobility Plan



City of Austin Research Efforts

- We are currently partnered with CTR to use video camera feeds to better understand pedestrian/driver interactions, and eventually detect near-misses
- We just began a partnership with Toole Design Group to scan best practices and develop signalization strategies to improve pedestrian safety/priority



National Practices

- Many cities in the nation are experiencing the same issues in areas with heavy vehicle and pedestrian volumes
- City of Austin works to stay ahead as a leader in the industry and participate in the national conversation on these issues
- Bike signal experimentation study with the FHWA. Data still being collected.



Final Comments

- No one solution will fix the overall problem
- Smart design helps us be proactive, but not all situations are predictable
- ATD is committed to using crash data and citizen feedback to prioritize sites that have the highest likelihood of crash prone situations and apply the most appropriate countermeasure to reduce risk of crashes



Questions?

