



TRANSPORTATION & CAPITAL IMPROVEMENTS (TCI)

Improving Safety at Signalized Intersections

June 15, 2018

San Antonio
Vision Zero Summit

Marc Jacobson, P.E., PTOE
Transportation Systems Management & Operations (TSMO)
Program Manager



- Crashes at Signalized Intersections
- Techniques to improve pedestrian safety
- Impacts of signal timing on safety
- Smart City applications
- Highway Safety Improvement Program



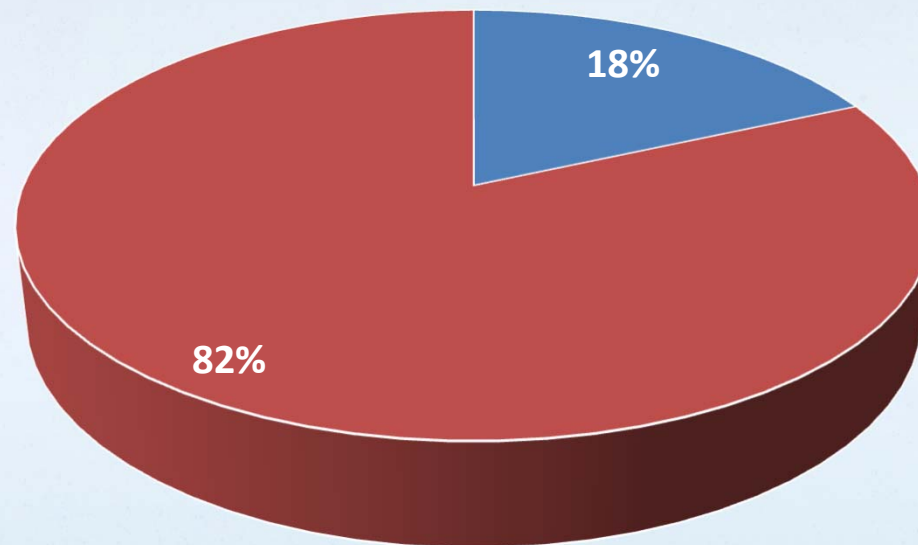


Your Route Guidance is Starting Now....



WHY DO SIGNALIZED INTERSECTIONS MATTER?

2017 Statewide KAB Crashes

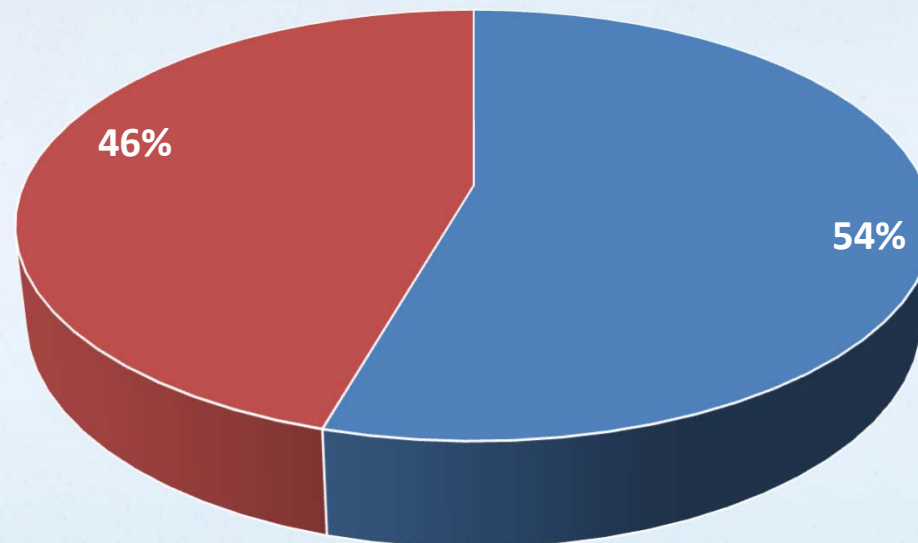


■ Signalized ■ Other



WHY DO SIGNALIZED INTERSECTIONS MATTER?

2017 Statewide KAB Crashes at Intersections



■ Signalized ■ Other Intersections



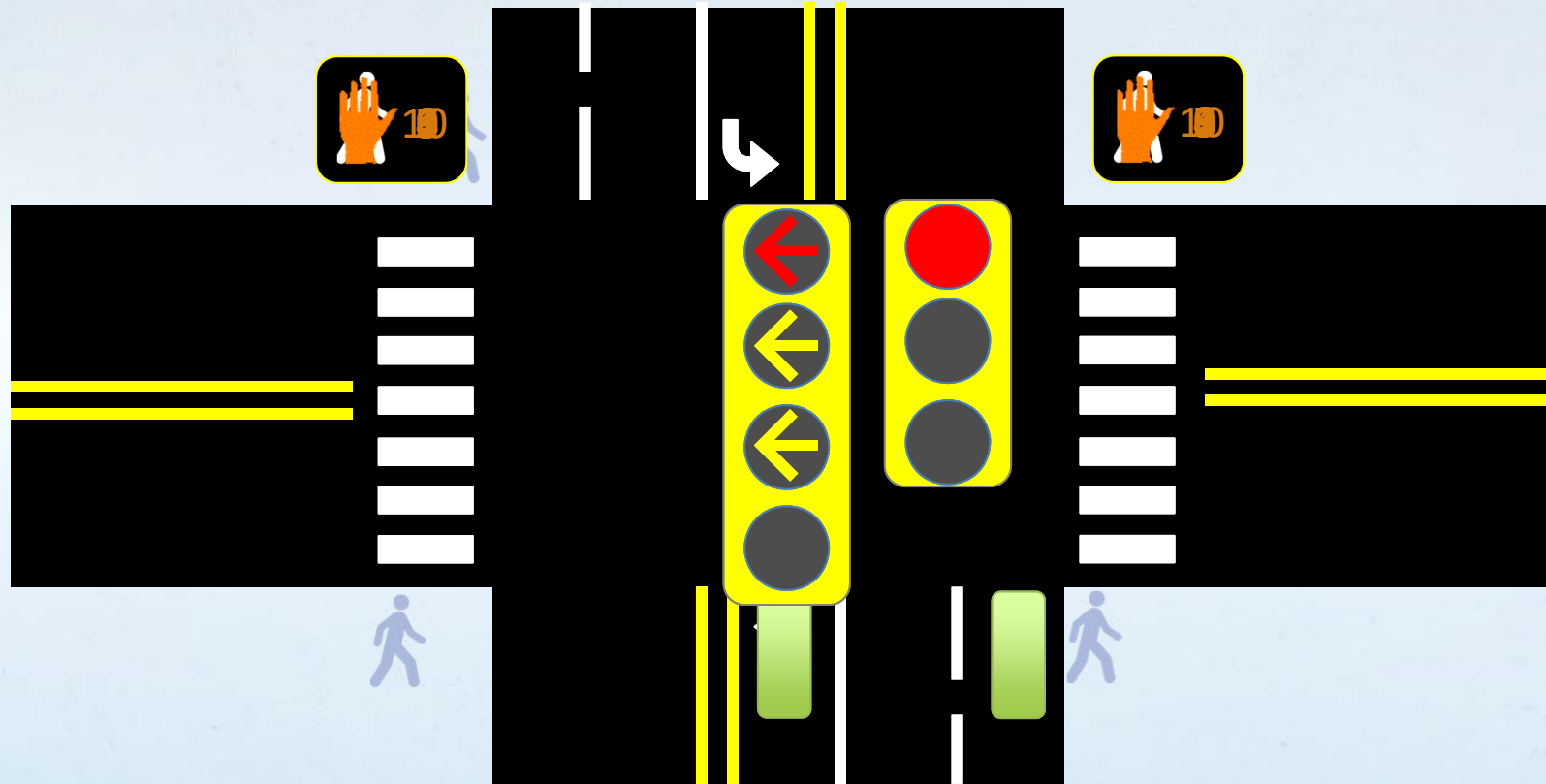
IMPROVING PEDESTRIAN SAFETY

- Leading Pedestrian Intervals (LPIs)
- Modified Flashing Yellow Arrow Operation
- Other Treatments



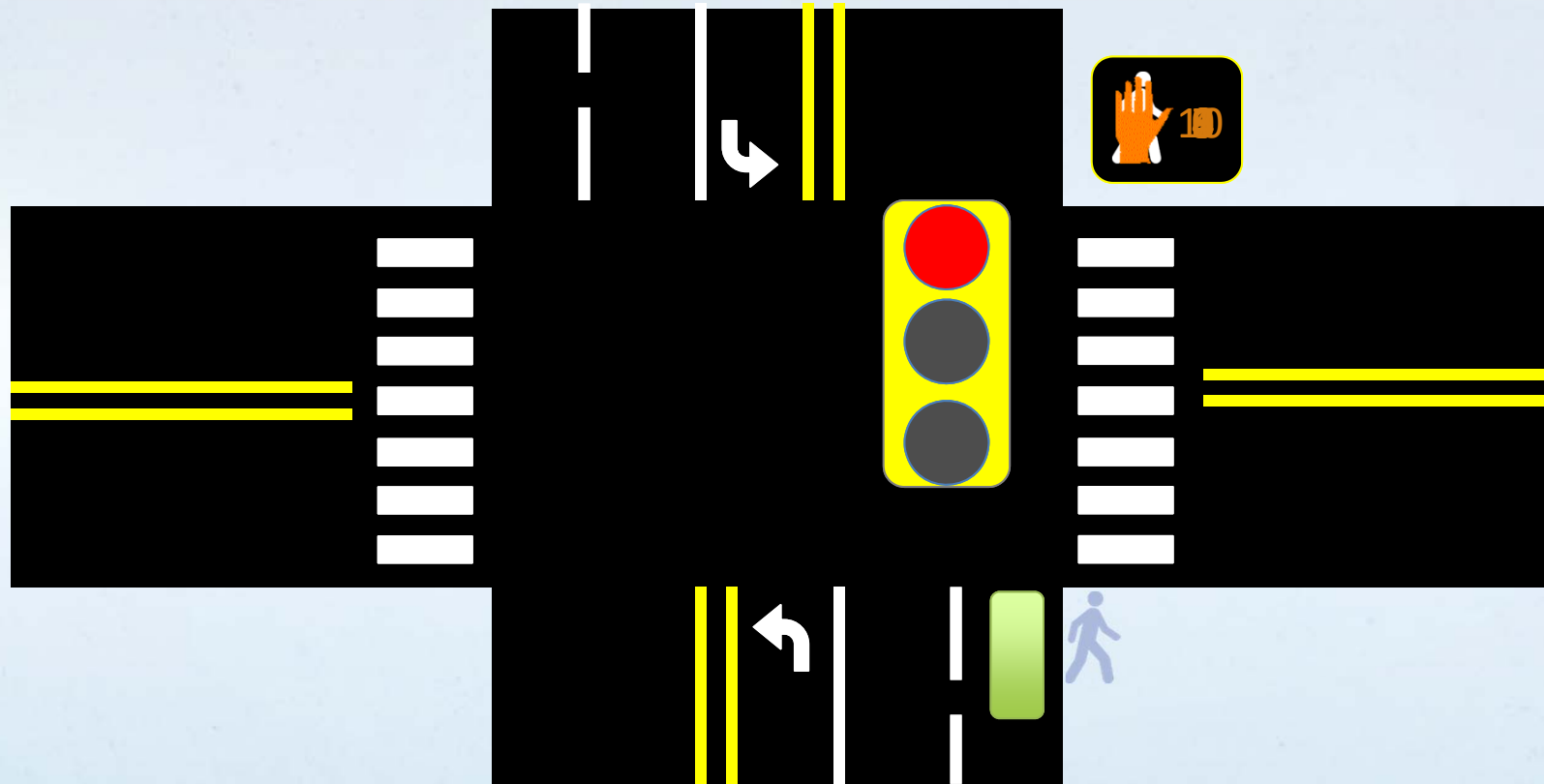


CONFLICTING TURNS





LEADING PEDESTRIAN INTERVAL



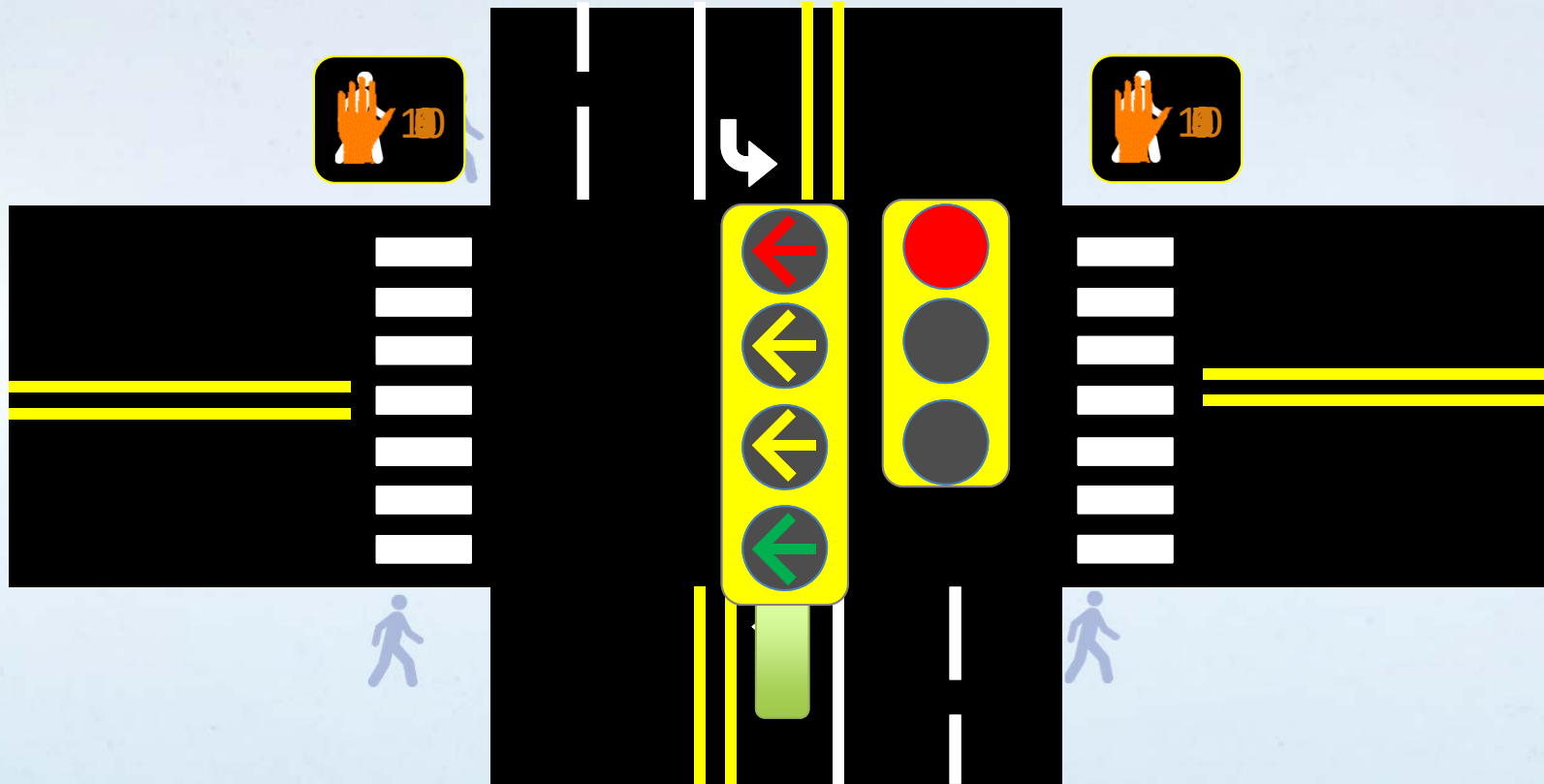


LEADING PEDESTRIAN INTERVAL





MODIFIED FYA FOR LEFT TURNS





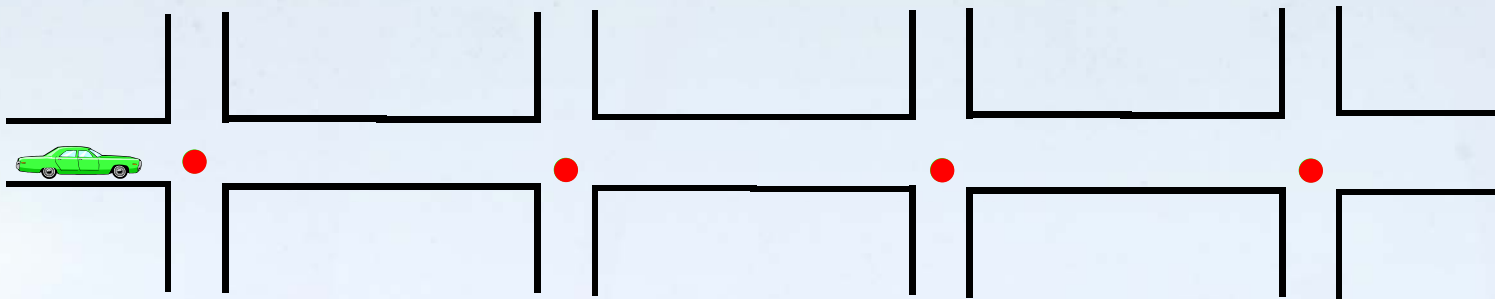
OTHER TREATMENTS

- Exclusive Pedestrian Phase
- Pedestrian Hybrid Beacons (HAWKs)
- Rectangular Rapid Flashing Beacons (RRFBs)
- Audible Pedestrian Signals (APS)
- Bicycle Signals





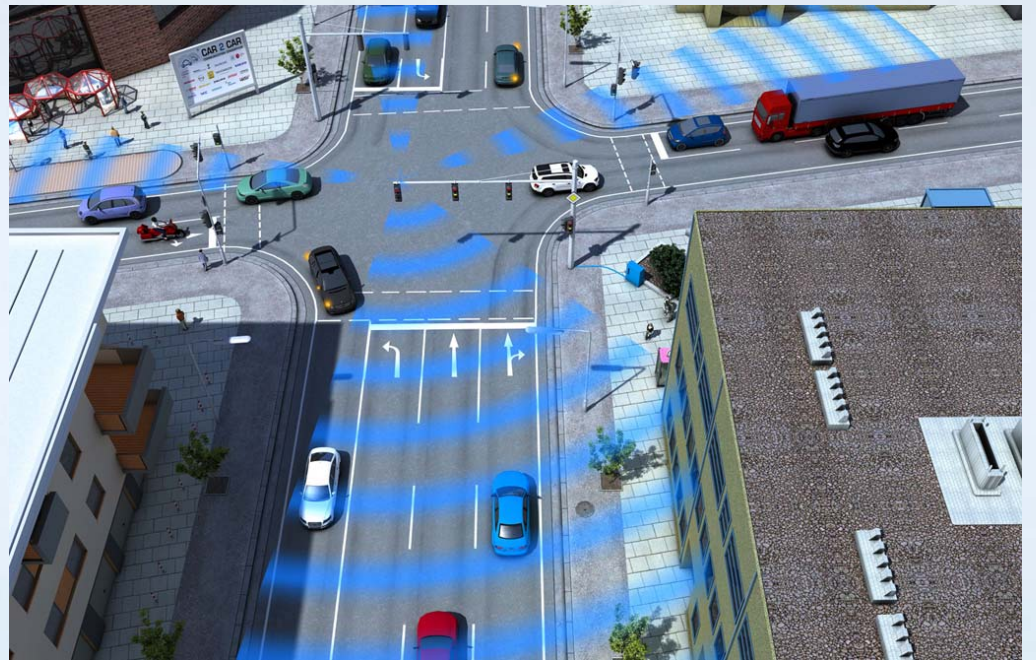
CORRIDOR TIMING



- Assumed Speed
- The Racing Effect
- Traffic Control – Not Traffic Calming



SMART SIGNALS FOR A SMART CITY





HIGHWAY SAFETY IMPROVEMENT PROGRAM

- Applicable HSIP Categories
 - 107 – Install Traffic Signal
 - 108 – Improve Traffic Signals
 - 110 – Install Pedestrian Signals
 - 131 – Improve Pedestrian Signals
 - 138 – Install Flashing Yellow Arrow
- City of San Antonio is currently constructing or designing 24 HSIP funded traffic signals! (16 on-system, 8 off-system – 1 new, 23 rebuilds)





**You Have Arrived at Your
Destination.**



CITY OF SAN ANTONIO
TRANSPORTATION & CAPITAL IMPROVEMENTS

THROUGH **INNOVATION** AND **DEDICATION**, WE **BUILD AND MAINTAIN**
SAN ANTONIO'S INFRASTRUCTURE

Marc Jacobson
(210) 207-4574
marc.jacobson@sanantonio.gov

CONNECT WITH US!    

#TCIbuildsSA | @SanAntonioTCI | www.sanantonio.gov/tci

INTEGRITY ♦ TEAMWORK ♦ INNOVATION ♦ PROFESSIONALISM