



SFMTA

# Pedestrian Countdown Signals in San Francisco

EMSC Meeting, 6/27/2018

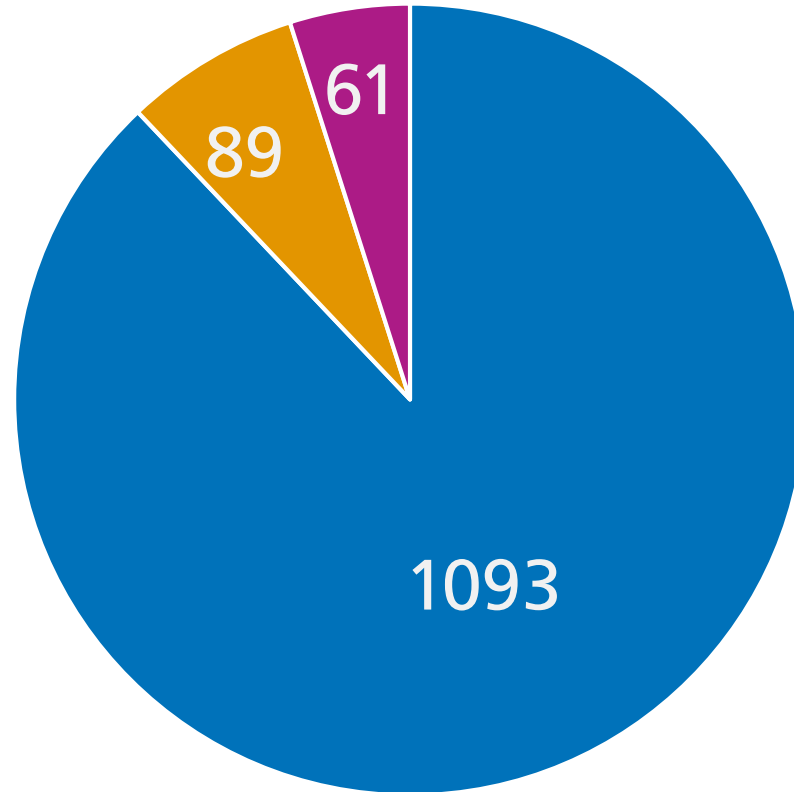
# Overview

- Which intersections have pedestrian countdown signals (PCS)?
- Terminology
- Push buttons
- Pedestrian signal timing and safety



# The State of PCS in San Francisco

All Traffic Signals (1,243)



■ Signals with PCS ■ Signals pending PCS ■ Signals missing PCS

# Pedestrian Countdown Signal Terminology

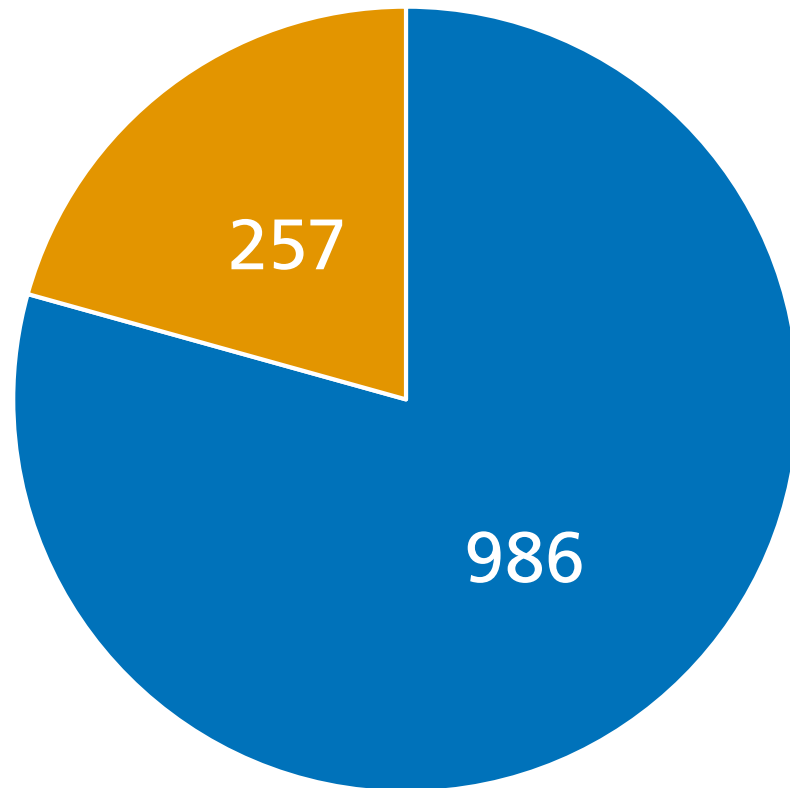
- Actuation
  - Pedestrian must push button to receive WALK signal
- Recall
  - Traffic signal automatically brings up WALK signal every cycle. No action from pedestrian necessary.

# Pedestrian Countdown Signal Actuation

- General SFMTA policy is not to use pedestrian actuation
- Following exceptions apply
  - State Route
  - Transit priority corridor
  - Opening closed crosswalks
  - Low volume cross streets
  - Mid-block signals

# Which signals have pedestrian actuation?

All Traffic Signals (1,243)



■ Pedestrian Recall

■ Pedestrian Actuated

# Types of Pedestrian Push Buttons



Actuated Push Button



APS Push Button

# Types of Pedestrian Push Buttons

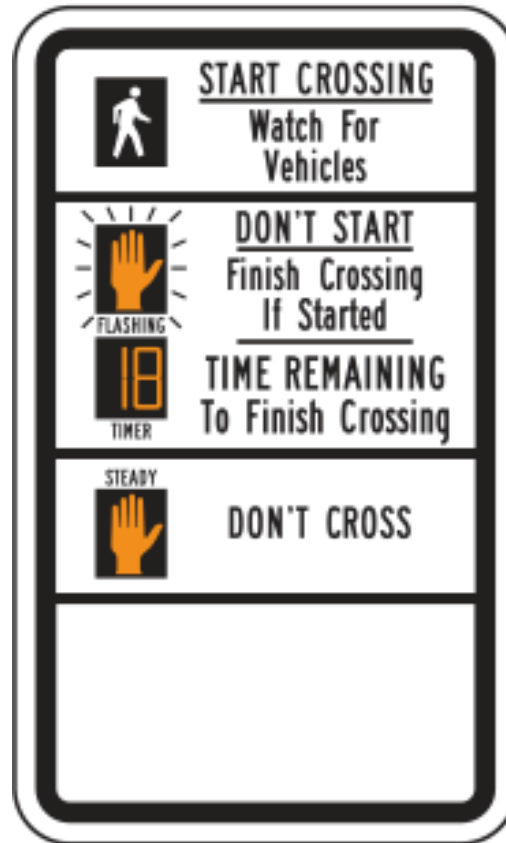
- Actuated push button
  - Must be pushed to receive WALK signal
- Accessible Pedestrian Signal (APS) push button
  - Vibro-tactile and audible message
  - Can be used for both actuated and recall crossings
  - SFMTA policy is to install APS at all new and upgraded traffic signals, as well as per public request at existing signals



# Types of Pedestrian Push Buttons



Actuated Signal/APS



APS



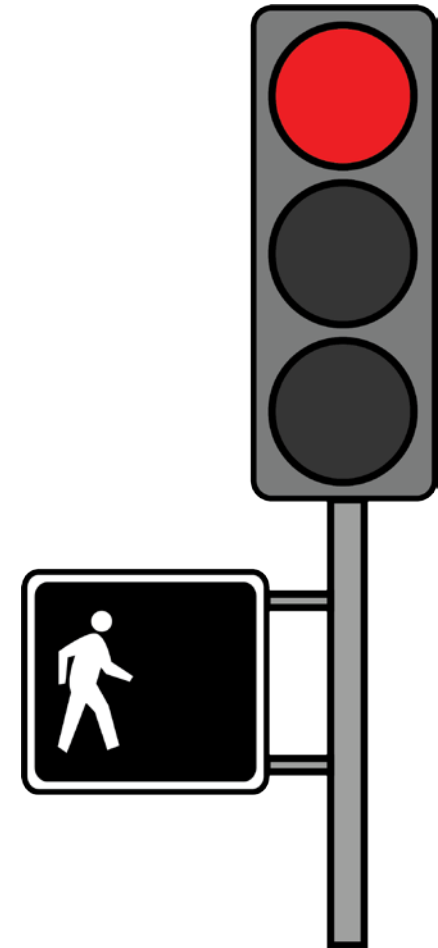
APS Pilot

# Pedestrian Signal Timing

- Leading Pedestrian Intervals (LPI)
- How pedestrian signals are timed in San Francisco

# Leading Pedestrian Intervals (LPI)

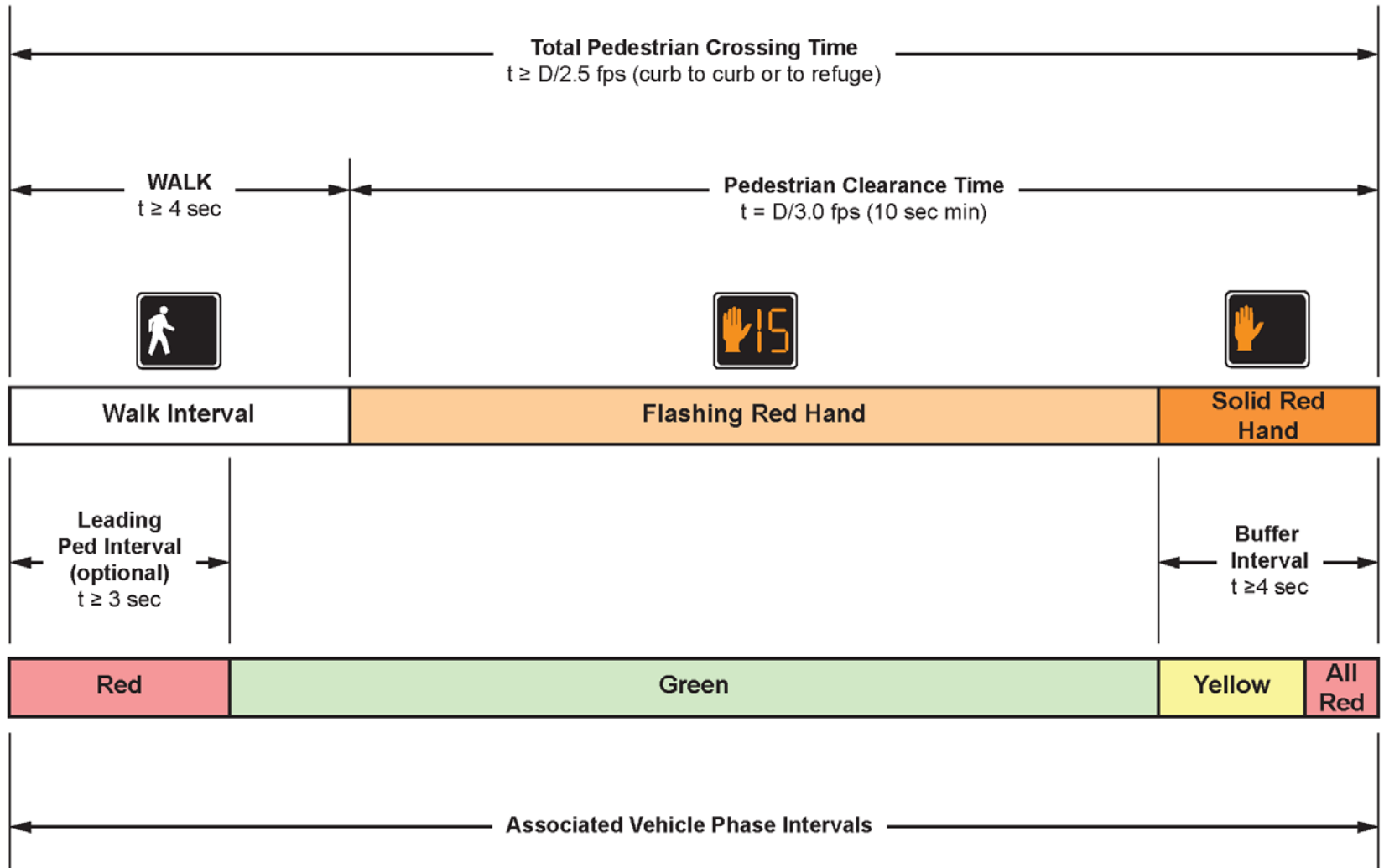
- Displays a brief advance WALK indication before parallel traffic receives a green
- Helps pedestrians establish themselves in crosswalk
- Can reduce conflicts between pedestrians and turning vehicles
- San Francisco has developed an LPI policy that encourages engineers to install LPI's at most signalized intersections



# How Pedestrian Signals are Timed in San Francisco

- WALK interval
  - 4 second minimum
- Pedestrian clearance interval
  - Start of countdown to cross street green
  - State requires walk speed of 3.5 feet per second
  - San Francisco recently adopted a slower speed of 3.0 feet per second
- Total pedestrian crossing time
  - Start of WALK through cross street green
  - State requires walk speed of 3.0 feet per second
  - San Francisco uses a walk speed of 2.5 feet per second, adopted in 2000

# Pedestrian Countdown Signal Timing



t = time  
 D = crossing distance

# Thank you

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