



**LEWISVILLE**

Deep Roots. Broad Wings. Bright Future.

# Alley Traffic Calming Pilot Program

Brett Bourgeois, PE, PMP  
City Engineer  
Engineering

# Traffic Calming

- ▶ Using physical design features to reduce vehicle speeds
  - ▶ Narrow Streets
    - ▶ On street parking
    - ▶ Buffered Bike Lanes
  - ▶ Horizontal Design Features
    - ▶ Chicanes
    - ▶ Traffic Circles
    - ▶ Curb Extensions
  - ▶ Vertical Deflection Devices
    - ▶ Speed Bumps
    - ▶ Speed Humps
    - ▶ Speed Tables





## Current Restrictions

- ▶ City Code Section IX.4.10. Traffic Control Devices:

*“All vertical deflection traffic calming devices are prohibited in public right-of-way unless approved by the City Engineer and Fire Code Official”*



# Past Practice

- ▶ Not used on public streets
- ▶ Speeding usually related to a select few vehicles; vertical deflection devices affects every user
- ▶ Acceleration-Deceleration Cycles

# Resident Complaints

- ▶ Received complaints about speeding on alley near Piedmont Drive
  - ▶ Performed a speed study
- ▶ Received complaints about speeding on alley near Lakecrest Lane
  - ▶ Performed a speed study



# Alley Speed Limits

- ▶ Per Texas Transportation Code
  - ▶ Prima Facie Speed for Alleys is 15 mph
  - ▶ Prima Facie: “On the Face of It”



# Existing Condition

▶ Piedmont Drive Alley

Direction	50 Percentile	85 Percentile	Max Speed
Southbound	15	20	27
Northbound	14	19	23

▶ Lakecrest Lane Alleys

Direction	50 Percentile	85 Percentile	Max Speed
Southbound	16	21	25
Northbound	18	23	32





## Proposed Pilot Use of Vertical Deflection

- ▶ Alleys with documented speeding concerns
  - ▶ 50<sup>th</sup> Percentile  $\geq$  15mph, and;
  - ▶ 85<sup>th</sup> Percentile  $\geq$  20mph, and;
  - ▶ Petition with 80% signatures of residents on alley
- ▶ Special situations
  - ▶ Continued monitoring to see if effective
  - ▶ Listen to residents feedback

# Next Steps - Design Considerations

- ▶ Bolt-down vs Cast-in-place
- ▶ Openings for drainage
- ▶ Height and Width
- ▶ Trash Service
- ▶ Minimum Spacing



# Feedback & Questions

Brett Bourgeois, PE, PMP  
City Engineer