Traffic Calming Measures

November 6, 2023







Residential Traffic Management Program

Complaint driven process; Approximately 100 annual requests

Road Requirement	Speed Hump	Multi-Way Stop
Volume		✓
Length		
Speed		
Crash Pattern		
Community Support		

Non-Compliant Installation methods exists for speed hump(s)



Measures Discussed Today

Horizontal Deflection

Forces you to slow-down because you can't drive straight.

Vertical Deflection

Forces you to slow-down due to change in height of road.

Street Width Reduction

Narrows the width of the travel lane, decreasing comfort. (Friction)

Other

 Measures that do not fall into the above or whose primary purpose may not be speed reduction.



Traffic Calming Measures

Focused on permanent traffic measures

Did not initially review:

- Signs
- Gates
- Pavement Markings

- Corner Radius Reductions
- Textured Pavements / Rumble Strips
- Streetscaping / Landscaping

Presentation format: Recommendations are most likely to least likely



Budget

Traffic Calming Budget in FY 23

Maintenance: \$25,000

Construction: \$25,000

Studies: \$ 20,000

Total: \$ 70,000

Traffic Calming Budget FY 24

Requested: \$75,000

Received: \$50,000

Encumbered: \$ (25,000)

Remaining Budget: \$25,000

Speed Hump

<u>Type</u> Vert. Def. **Location Segment**

Appropriate Road Application	
✓ Neighborhood	
☐ Major Non-Neighborhood	
☐ Main Downtown Streets	

Concern(s) Addressed

✓ Speeding ☐ Crashes/Safety

☐ Congestion ☐ Business Interest

☐ Accessibility

Cost

• Range: \$2k - \$4k

Recommendation Likelihood

☐ Low

☐ Medium

✓ High



Speed Cushion

Vert. Def.

Location Segment

Appropriate Road Application	A	DI	pro	priate	Road	App	lication
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- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ☐ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding ☐ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

- Range: \$2.5k \$6k
 - Recommendation Likelihood
 - Low

☐ Medium

☑ High



FAYETTEVILLE: Speed Table / Raised Crosswalk Vert. Def.

Location Segment

Appropriate Road Application

- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☑ Accessibility

Cost

• Range: \$4k - \$8k

Recommendation Likelihood

☐ Low

☐ Medium

✓ High**



**Where Pedestrian Activity Warrants Recommendation

Traffic Circle

Location Horiz. Def. Intersection

Appropriate Road Application

- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ☐ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☑ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

- Range: \$10k \$25k+
 - Recommendation Likelihood
 - _ Low
- ☐ Medium
- ☑ High



Median Island

Street Width

Location Segment

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☑ Accessibility

Cost

- Range: \$15k \$55k
 - Recommendation Likelihood
 - Low
- ☑ Medium



FAYETTEVILLE Corner Extension / Bulb-Out Street Width Intersection

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- ✓ Main Downtown Streets

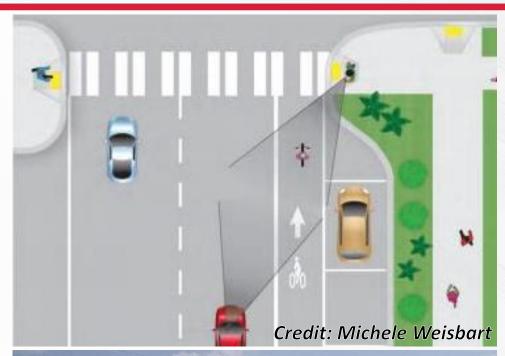
Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☑ Accessibility

Cost

- Range: \$8k \$40k
 - Recommendation Likelihood

 - ☐ Low
 ✓ Medium





On-Street Parking

Type Street Width **Location Segment**

Appropriate Road Application

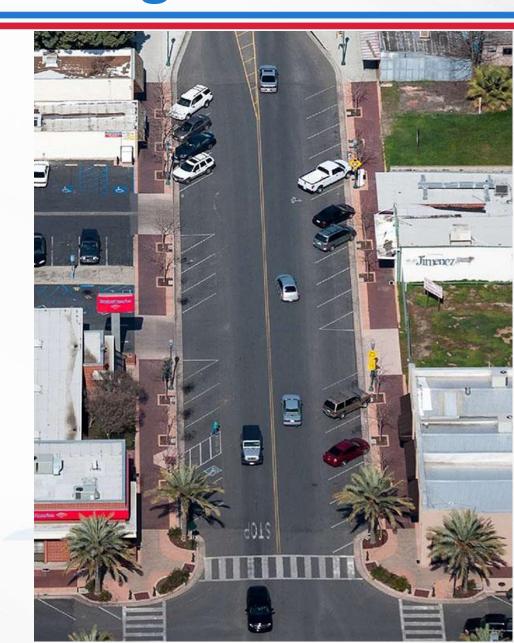
- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ☑ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding ☐ Crashes/Safety
- ☐ Congestion ☑ Business Interest
- ☐ Accessibility

Cost

- Range: \$250 \$10k per spot
 - Recommendation Likelihood
- ✓ Medium



Radar Feedback Signs

Type Other **Location** Segment

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding ☐ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☐ Accessibility

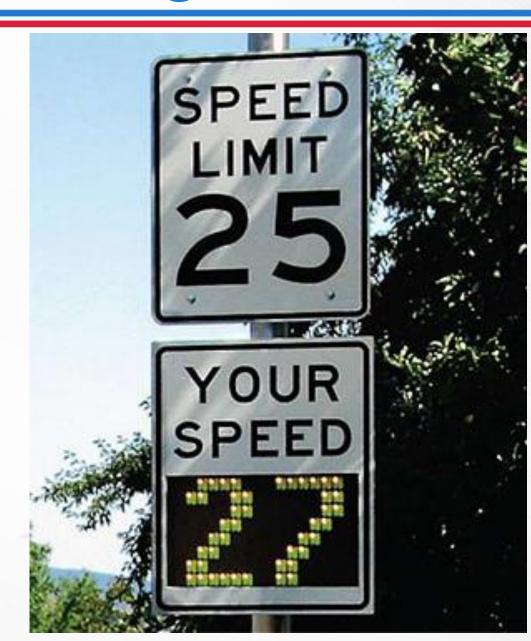
Cost

• Range: \$3k - \$6k

Recommendation Likelihood

✓ Low

☐ Medium



Road Diet

Type **Street Width**

Location Segment

Appropriate Road Application

- ☐ Neighborhood
- ☑ Major Non-Neighborhood
- ☑ Main Downtown Streets

Concern(s) Addressed

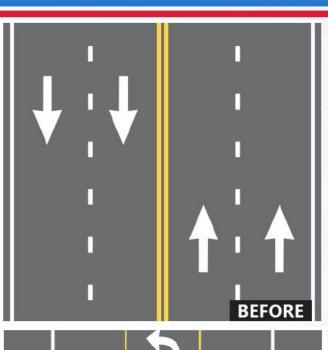
- ✓ Speeding
 ✓ Crashes/Safety
- ☑ Congestion ☑ Business Interest
- ☑ Accessibility

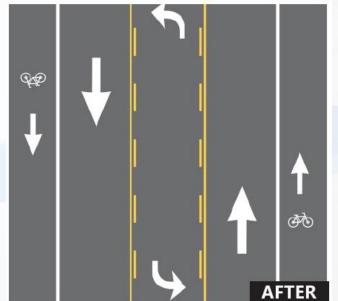
Cost

• Range: \$10k - \$100k+ (per mile) Recommendation Likelihood

- ✓ Low*
 □ Medium
- ☐ High

*Low recommendation in relation to traffic calming for neighborhoods







Roundabout

Location Horiz. Def. Intersection

Appropriate Road Application

- □ Neighborhood
- ☑ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ✓ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

• Range: \$250k - \$2M+

Recommendation Likelihood

✓ Low*

☐ Medium

☐ High



*Low recommendation in relation to traffic calming for **neighborhoods**

Mini-Roundabout

Location Horiz. Def. Intersection

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ✓ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

- Range: \$15k \$60k+
 - Recommendation Likelihood
 - **✓** Low
- ☐ Medium





Chicane

Type Horiz. Def.

Location Segment

Appropriate Road Application

- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ☑ Main Downtown Streets

Concern(s) Addressed

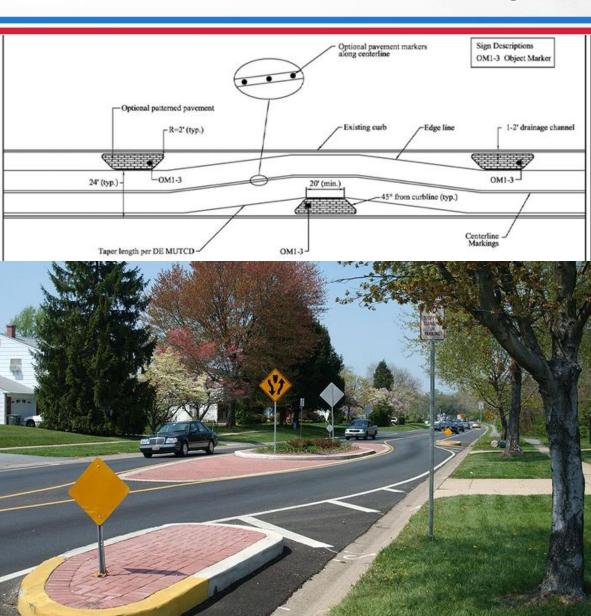
- ✓ Speeding ☐ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

• Range: \$8k - \$25k

Recommendation Likelihood

✓ Low
□ Medium



Choker

Street Width

Location Segment

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☑ Accessibility

Cost

- Range: \$10k \$25k
 - Recommendation Likelihood
 - **✓** Low
- ☐ Medium



Raised Intersection

Location Vert. Def. Intersection

Appropriate Road Application

- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☑ Accessibility

Cost

- Range: \$15k \$60k
 - Recommendation Likelihood
 - **✓** Low
- ☐ Medium



FAYETTEVILLE: Realigned Intersection

Location Horiz. Def. Intersection

Appropriate Road Application

- ✓ Neighborhood
- ☐ Major Non-Neighborhood
- ☐ Main Downtown Streets

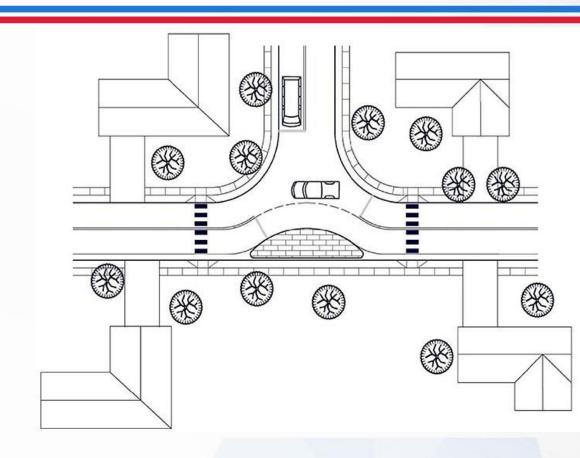
Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

- Range: \$15k \$60k
 - Recommendation Likelihood
 - **✓** Low

☐ Medium



Lateral Shift

Type Horiz. Def. **Location** Segment

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- ☑ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding ☐ Crashes/Safety
- ☐ Congestion ☐ Business Interest
- ☐ Accessibility

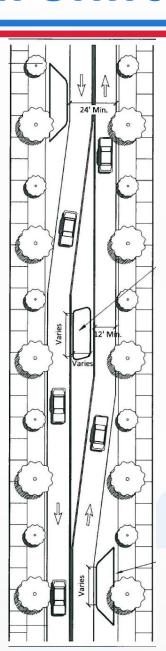
Cost

• Range: \$8k - \$25k

Recommendation Likelihood

✓ Low

☐ Medium





FAYETTEVILLE: Multi-Use Lines / Lanes

Location Segment

Appropriate Road Application

- ✓ Neighborhood
- ☑ Major Non-Neighborhood
- ✓ Main Downtown Streets

Concern(s) Addressed

- ✓ Speeding
 ✓ Crashes/Safety
- ☐ Congestion ☑ Business Interest
- ☑ Accessibility

Cost

- Range: \$5k \$21k (per mile) Recommendation Likelihood

 - ✓ Low
 □ Medium
- ☐ High



FAYETTEVILLE: Rumble Strips / Stripes

Type Other Location Segment

Appropriate Road Application

- □ Neighborhood
- ☑ Major Non-Neighborhood
- ☐ Main Downtown Streets

Concern(s) Addressed

- ☐ Congestion ☐ Business Interest
- ☐ Accessibility

Cost

• Range: \$500 - \$6k (per mile)

Recommendation Likelihood

Not Recommended as Speeding Countermeasure







Measures Comparison

Traffic Calming Measure	Average Cost Range			Equivalent Num. Recommendation		Comment	
<u></u>		<u>Low</u>		<u>High</u>	Speed Humps	<u>Likelihood</u>	<u></u>
Speed Hump	\$	2,000	\$	4,000	1	High	
Speed Cushion	\$	2,500	\$	6,000	1.4	High	
Speed Table / Raised Crosswalk	\$	4,000	\$	8,000	2	High	Where pedestrian activity warrants installation
Traffic Circle	\$	10,000	\$	25,000	5.8	High	
Median Island	\$	15,000	\$	55,000	11.7	Medium	
Corner Extension / Bulb-Out	\$	8,000	\$	40,000	8	Medium	
On-Street Parking	\$	250	\$	10,000	1.7	Medium	
Radar Feedback Sign	\$	3,000	\$	6,000	1.5	Low	Better suited as police speed enforcement tool
Road Diet	\$	10,000	\$	100,000	18.3	Low	
Roundabout	\$	250,000	\$ 2	2,000,000	375	Low	Not recommended for neighborhoods
Mini-Roundabout	\$	15,000	\$	60,000	12.5	Low	
Chicane	\$	8,000	\$	25,000	5.5	Low	
Choker	\$	10,000	\$	25,000	5.8	Low	
Raised Intersection	\$	15,000	\$	60,000	12.5	Low	
Realigned Intersection	\$	15,000	\$	60,000	12.5	Low	
Lateral Shift	\$	8,000	\$	25,000	5.5	Low	
Multi-Use Lines / Lanes	\$	5,000	\$	21,000	4.3	Low	
Rumble Strips / Stripes	\$	500	\$	6,000	1.1	Not for Speeding	Viewed more as a safety measure



Budget

Traffic Calming Budget FY 24

Requested: \$ 75,000

Received: \$50,000

Encumbered: \$ (25,000)

Remaining Budget: \$25,000





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