

Traffic Calming Applications

“the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.”

Lockwood, Ian. ITE Traffic Calming Definition. ITE Journal, July 1997, page 22.



Why are they needed?

- Speeding ?
 - Safety ?
 - Perception of a problem ?
 - Traffic Volumes ?
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- Typically, it's a combination of all the above.



- Rubber Speed humps and speed cushions
- Overall they didn't meet residents goals
- Durability was an issue
- Removing or replacing when paving is costly
- Neighborhood not satisfied with results
- Increases Emergency response times
- Asphalt are difficult to build

Location	Volume Before	Volume After	85th % Speed Before	85th % Speed After
Bahama Loop	1427	1976	34 MPH	29 MPH
Beta Drive	1021	1168	35 MPH	29 MPH
Glenwood Drive	476	431	34 MPH	30 MPH
McFayden Drive	1571	2927	37 MPH	30 MPH



Speed humps and Cushions

- This hump is 5 years old.
- It has failed due to UV making it brittle and the steel bolts and subframe deteriorating.
- It could not be fixed.
- We could have replaced it with asphalt but the residents wanted something different.
- Speed cushions were considered ineffective and we were petitioned to remove them.
- We needed an alternative that met residents objectives



Our Successes

- Mini-roundabouts
 - Reduced volumes
 - Accommodates our Transit system
 - Reduced speeds

- Lane Narrowing / Multi-use Lane
 - Provides a perception of safety
 - Moves the vehicles away from residents
 - Adds a buffer



Mini- Roundabout



- Benefits
 - Reduced volumes
 - Reduced speed
 - Reduced crashes
 - It can improve aesthetics
 - It can improve pedestrian safety at the intersection
- Negatives
 - Cost slightly more than a speed hump



Road Narrowing/ Multi-use Lanes



- Benefits
 - Safety complaints dropped to zero at all locations
 - Community believed it to be effective and saw additional benefits from it.
- Negatives
 - Cost more than a speed hump
 - No Change in volumes, speed or crashes



City of Fayetteville North Carolina



In conclusion, most traffic calming policies make it a straightforward process to install a traffic calming device, the challenge is installing one that is effective and creates safe and attractive streets.

This is an opportunity to install a treatment that fits into the community and is recognized as a benefit. It should enhance the street environment and encourage multi-modal use.





Questions

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