

# TRANSPORTATION

## Preliminary Traffic Calming Design & Public Comment





# How do we approach the traffic calming design?

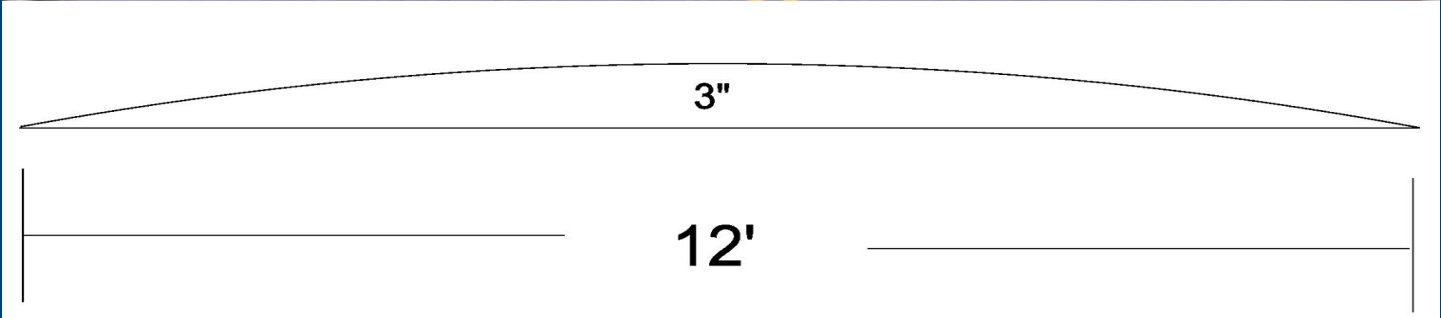
- Consistent treatment placement along entire street
  - 400' – 700' spacing of treatments
  - Close spacing is used for streets with a higher speed compliance issue
  - Target pedestrian heavy amenities to increase safety, such as Fred A Olds Elementary, NCSU, and commercial spaces along Hillsborough St
- Targeted placement to fix a speed related crash issue
  - If a pattern of speed related crashes is identified, targeted treatment placement can eliminate that crash pattern
  - If no pattern is identified locationally, but multiple speed related crashes have occurred, consistent treatment spacing can help eliminate crashes along an entire street



# Treatment Limitations

- Your street's width will determine what types of treatments can be placed
  - Dixie Trl is approximately 41' wide
  - Based on this street width, horizontal and vertical traffic calming elements are appropriate and are being proposed as part of this project

# Speed Humps (vertical)





# Speed Humps (vertical)

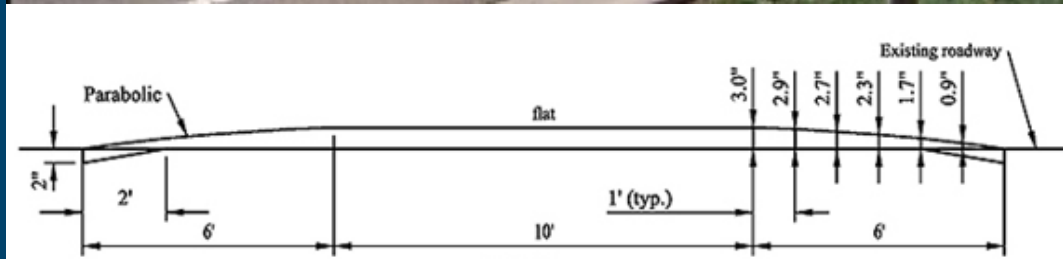
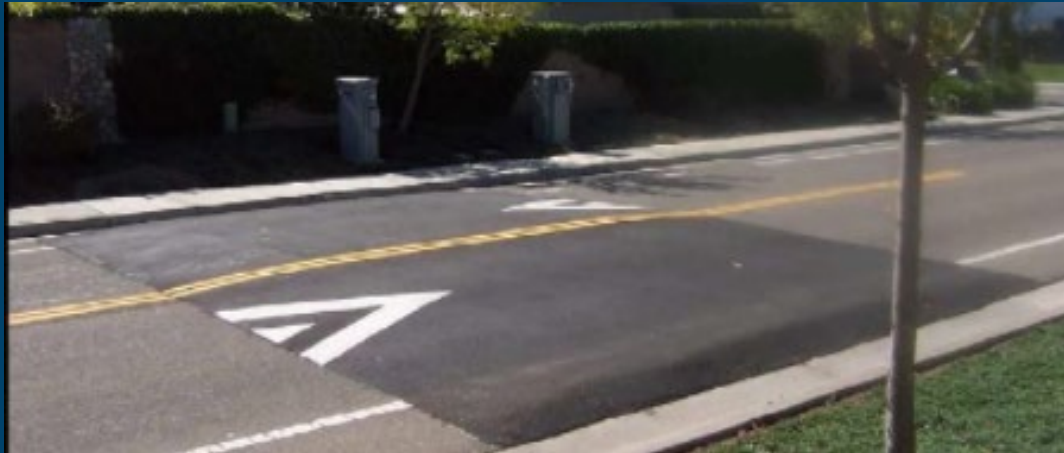
## Pros

- Can be the most effective
- Fast installation time/Less impact during construction
- Slightly limited placement options based on larger footprint

## Cons

- Does not contrast as much with existing roadway
- Impact to driving comfort
- Creates slight delay in emergency service's response times

# Speed Table (vertical)





# Speed Table (vertical)

## Pros

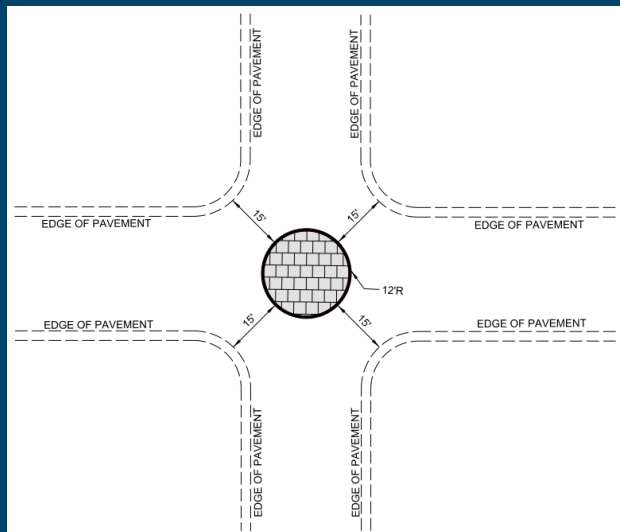
- Can be the most effective
- Fast installation time/Less impact during construction
- Versatile placement options based on compact footprint

## Cons

- Does not contrast as much with existing roadway
- Impact to driving comfort
- Creates slight delay in emergency service's response times



# Neighborhood Traffic Circle (horizontal)



\*Neighborhood Traffic Circle to be placed within existing curb lines – no impacts outside of existing roadway





# Neighborhood Traffic Circle (horizontal)

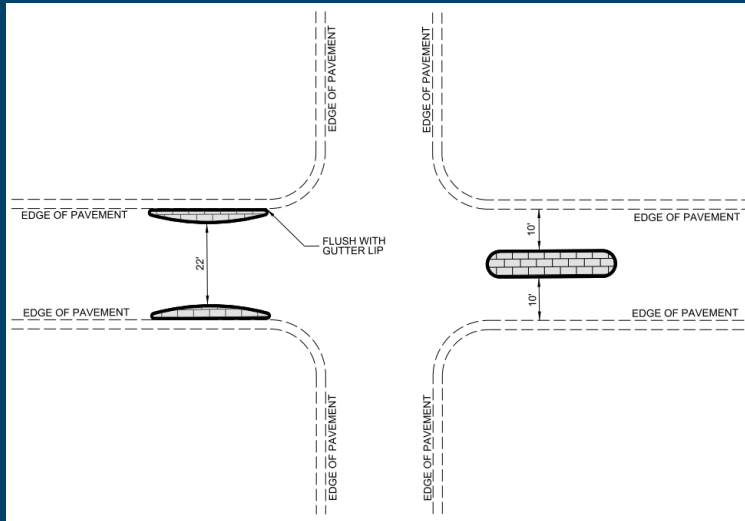
## Pros

- Helps decrease speed of vehicles as they enter/drive through the intersection
- Helps to reduce the frequency and severity of collisions
- Increases safety for pedestrians and cyclists at the intersection
- Minimal impact to emergency service's response times

## Cons

- Not all intersections meet the minimum dimensions for installation
- Slightly longer installation time, typical for treatments made of concrete

# Intersection Narrowing (horizontal)



\*Integrity of the separated bicycle lanes will be maintained through the intersection



# Intersection Narrowing (horizontal)

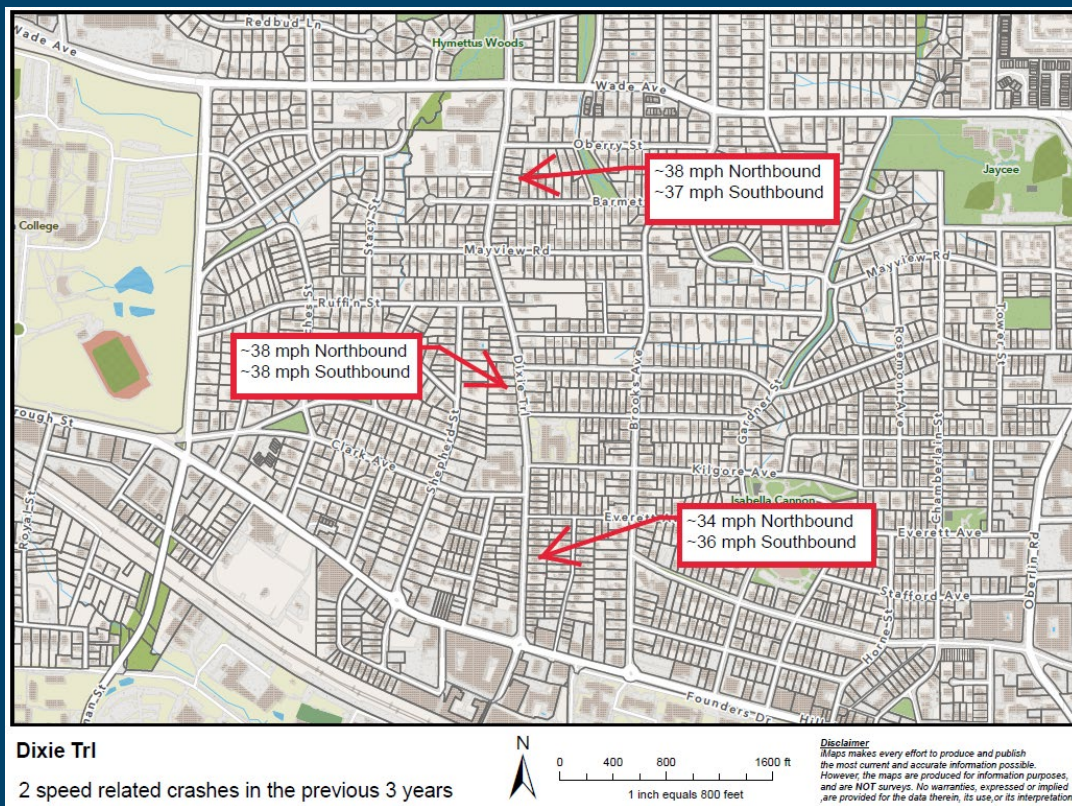
## Pros

- Helps decrease the speed of vehicles as they enter/drive through the intersection
- Can be incorporated into locations with enhanced pedestrian elements to create safer pedestrian crossings
- Minimal impact to emergency service's response times

## Cons

- Not all intersections are appropriate for this treatment style
- Slightly less effective at slowing down vehicles at intersections when compared to Neighborhood Traffic Circles
- Slightly longer installation time, typical for treatments made of concrete

# Evaluation Data





Raleigh

# Design Process

- Based on the speed progression, 30 mph speed limit, and high vehicular volumes along Dixie Trl, we are proposing treatment spacing of approximately 500' - 700' intervals
- Speed tables are the preferred traffic calming treatment due to the speed limit and use characteristics of Dixie Trl



Raleigh

# Project Goal

- The project will be deemed effective if 85% of drivers are going at or below the 30 mph speed limit and top driver speed is capped at around 5-7 mph over the speed limit
  - Based on your location, Van Dyke Ave, Woodburn Rd, and Park Dr are the closest completed traffic calming project to you with this style of completed project. We encourage you to go drive these streets yourself to experience the final project.
- Once the project has been completed for approximately 6 months, an after-study will be performed to measure project effectiveness



# Public Comment

- What are your thoughts on the proposed design?
  - Should we place more or less treatments along the street?
- Have we adequately addressed problem areas you see?
  - Should we place another traffic calming treatment in a targeted location?
- What are your thoughts on the mix of treatments being proposed?
  - Please review our video about Neighborhood Traffic Circles that may answer some immediate questions.
- What other questions, comments, suggestions do you have?



Please direct all comments and questions to staff using the PublicInput portal for Dixie Trl. Staff will respond and we can have a neighborhood wide conversation.

