NEIGHBORHOOD TRAFFIC CALMING POLICY

Amended January 2021

Neighborhood Traffic Calming Policy

This revised policy will go in effect immediately upon adoption by the Town Council. Any application submitted prior to Council approval date will be considered under the previous policy.

Traffic Calming is the combination of physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for both motorized and non-motorized street users.

Traffic calming objectives include:

- Achieving speeds for motor vehicles that are reasonable for a neighborhood setting
- Increasing the safety and the perception of safety for non-motorized users of the street(s)
- Reducing collision frequency and severity
- Reducing the need for police enforcement

The Town of Indian Trail continually strives to strengthen and protect its neighborhoods by improving the quality of life in residential areas. Speeding traffic on residential streets creates safety hazards and can greatly affect neighborhood livability. When traffic problems become a daily occurrence, our sense of community and personal well-being are threatened. The Town is committed to balancing the needs of the citizens with the operational and mobility needs of the Towns road system while giving those who live and work in the project area the opportunity to become actively involved in the planning and decision-making process.

The Town of Indian Trail's *Neighborhood Traffic Calming Policy* was developed to guide Town Engineering Staff and inform residents about the processes and procedures for implementing traffic calming on residential streets. Under this policy, the Town Engineering Department will work with a Neighborhood Representative at their initiation, to identify traffic problems in their neighborhood and engineer appropriate solutions. A neighborhood representative must be a Homeowners Association (HOA) member or endorsed by the HOA board by official letter. In neighborhoods without an HOA, you just need to own property adjacent to the street where you as the applicant feels the speeding issue is occurring.

What Streets will be addressed under this Policy?

Two types of streets are addressed under this policy, Residential Local and Residential Collector.

- Residential Local service streets make up the majority of Indian Trail's street system. These streets serve local circulation needs for motor vehicle, bicycle, and pedestrian traffic and primarily provide access to residences and on occasion, businesses.

- Residential Collector streets are more difficult to define. Collector streets provide access between local service streets or from local service streets to thoroughfares. To be considered under this Policy, a collector street must have direct access to residences (i.e., driveways).

Procedure for initiating a neighborhood traffic study:

1. A Neighborhood Representative (as defined above) should contact the Town of Indian Trail Engineering Department or submit an online request form to request a traffic study to be performed. The form for such a request is attached or can be downloaded and submitted electronically from the Town of Indian Trail website. Each request will be electronically filed, and the applicant can request periodic updates thru email submissions to Town staff.

2. Staff will meet with the Neighborhood Representative to discuss the process that will be followed. Staff will determine the affected area of the traffic calming devices.

3. Staff collects and analyzes data related to the traffic issues identified and presents the findings to the representative. This process is typically completed within 60 days of the start of data collection, depending on the traffic calming request backlog.

4. If warrants for traffic calming measures are not met, traffic calming devices will not be considered under this policy. The street will not be eligible for re-evaluation for a period of 1 year.

5. If the criteria for traffic calming measures are met, then the following steps will occur in the below order:

    a. Sheriff's Department will be notified of the speeding problem so assistance can occur until traffic calming measures are in place.
    b. Neighborhood representative will complete the required signature petition (see Traffic Calming Warrants).
    c. If the neighborhood has an HOA, then the applicant will present at a board meeting their request to the Town and provide meeting minutes to Town staff afterwards.
    d. Once the petition and the HOA board meeting participation (if warranted) are successfully completed, then the Town will begin engineering a recommended traffic calming plan. The following are traffic calming options that may be considered if Town staff feel speed humps are not the appropriate solution:

        - Center Island Narrowing
        - Chicane
        - Choker
        - Speed Cushion
        - Traffic Circle
        - Pavement Striping for lane narrowing purposes (Center line, Edge line, etc.)
        - Multiway STOP (if warranted, ref MUTCD Section 2B.07)
        - Other methods approved by Staff

        The staff recommended plan will be presented to the Town Council and public comments will be received at that point to hear citizens' feedback. At a subsequent Town Council meeting, the Town Council will vote to approve, deny, or modify the plan.

Traffic Calming Warrants

To qualify for traffic calming in the Town of Indian Trail, the following warrants must be met:

- The street must be classified as a Town maintained two-lane Residential Local or Residential Collector street
- The street cannot be designated as a primary emergency response route, transit route, or classified as a Thoroughfare
- The street cannot be more than two travel lanes wide and must be less than or equal to 40 feet
- 15 % of the traffic on the street exceeds the posted speed limit by more than 8 mph, as determined by the field analysis
- The street's speed limit must be posted at 25 mph or less
- Average annual daily traffic volume must be greater than 500 vehicles per day (vpd) but less than 2,500 vpd
- Petition (60% of affected property owners must be in favor of traffic calming measures)
- A letter of support from a HOA Board, once traffic calming plan is presented.

  NOTE: There must be a minimum of 12 months between requests being considered from individual neighborhoods

Implementation, Evaluation, and Funding

The Town of Indian Trail will be solely responsible for engineering and implementing traffic calming devices that are deemed warranted by the field study. Town Staff will present findings to the Town Council and the Neighborhood Representative. Traffic calming measures are funded through an appropriation determined by the Town Council.

The Town will fund up to four (4) traffic calming devices per request. If additional devices are requested, they can be funded through a special assessment district or directly from an HOA.

Re-evaluation and Monitoring

Town Staff will review the effectiveness of each measure after implementation. If the measures prove to be ineffective or should traffic conditions change, Town Staff can recommend removal of the devices. The Town Council must approve any recommendation to remove installed devices.

Appendix A: Description of Traffic Calming Devices

(Courtesy of Institute of Transportation Engineers)

CENTER ISLAND NARROWING

Description:

- raised islands located along the centerline of a street that narrow the travel lanes at that location
- sometimes called midblock medians, median slow points, or median chokers

Applications:

- are often nicely landscaped to provide visual amenity and neighborhood identity
- can help pedestrianize streets by providing a mid-point refuge for pedestrians' crossings
- sometimes used on wide streets to narrow travel lanes
- work well when combined with crosswalks

Potential Impacts:

- may reduce parking and driveway access
- reduces pedestrian crossing width
- may visually enhance the street through landscaping but may also limit visibility of pedestrian crossings
- bicyclists prefer not to have the travel way narrowed into path of motor vehicles
- collision, speed, and volume data are not available

Emergency Response Issues:

- preferred by fire department/emergency response agencies to most other traffic calming measures

CHICANES

Description:

- a series of narrowings or curb extensions that alternate from one side of the street to the other forming S-shaped curves
- also called deviations, serpentines, reversing curves, twists, and staggering

Applications:

- appropriate for midblock locations only
- most effective with equivalent volumes on both approaches
- typically, is a series of at least three curb extensions
- can use on-street parking to create chicane

Design/Installation Issues:

- unless well-designed, chicanes may still permit speeding by drivers cutting straight paths across the center line
- European manuals recommend shifts in alignment of at least one lane width, deflection angles of at least 45 degrees, and center islands to prevent drivers from taking a straight "racing line" through the feature

Potential Impacts:

- no effect on access
- limited data available on their effect on speed, volume, and collisions
- street sweeping may need to be done manually
- can impact parking and driveway access
- provides opportunity for landscaping

Emergency Response Issues:

- limited data available on their effect on delay to emergency response
- emergency response typically prefers two-lane chicanes to speed humps

CHOKERS

Description:

- curb extensions at midblock or intersection corners that narrow a street by extending the sidewalk or widening the planting strip
- can leave the cross section with two narrow lanes or with a single lane
- at midblock, sometimes called parallel chokers, angled chokers, twisted chokers, angle points, pinch points, or midblock narrowings
- at intersections, sometimes called neckdowns, bulbouts, knuckles, or corner bulges
- if marked as a crosswalk, they are also called safe crosses

Applications:

- local and collector streets pedestrian crossings
- main roads through small communities
- work well with speed humps, speed tables, raised intersections, textured
- crosswalks, curb radius reductions, and raised median islands

Design/Installation Issues:

- some applications use an island which allows drainage and bicyclists to continue between the choker and the original curb line
- typically designed to narrow road to 20 feet for two-way traffic; typically avoid the use of widths between 13 and 17 feet
- adequate drainage is a key consideration
- provides opportunity for landscaping
- vertical delineators, bollards or object markers are often used to make visible to snowplow operators

Potential Impacts:

- can impact parking and driveway access
- reduces pedestrian crossing width and increases visibility of pedestrian
- speeds have typically been reduced on average by 4 percent for two-lane chokers and 14 percent for one lane chokers
- minor decrease in traffic for two-lane and 20 percent reduction for one-lane chokers
- collision data not available
- bicyclists prefer not to have the travel way narrowed into path of motor vehicles

Emergency Response Issues:

- preferred by many fire department/emergency response agencies to most other traffic calming measures

Other/Special Considerations:

- one-lane chokers rely on regulatory signs and driver courtesy to work

SPEED CUSHION

Description:

- modular units; either pre-manufactured or constructed with asphalt
- sometimes called speed pods

Applications:

- local and collector streets
- designed to allow wider wheel-based vehicles (emergency vehicles) to straddle and pass with minimal delay

Design/Installation Issues:

- typically, 6.5 feet X 6.5 feet in size
- most common height is 3 inches
- pre-manufactured unit shall be installed on roads with adequate pavement
- structure to allow for anchoring
- number of pods determined by street width

Potential Impacts:

- no effect on access
- traffic volumes have been reduced on average by 15-25 percent depending on alternative routes
- pods require the driver to slow below posted speed to have comfortable ride
- cyclist travel is unimpeded

Emergency Response Issues:

- generally, less than 2 seconds of delay per hump for fire trucks

SPEED HUMPS/TABLES

Description:

- long raised speed tables with a flat section in the middle and ramps on the ends; sometimes constructed with brick or other textured materials on the flat section
- sometimes called flat top speed humps, trapezoidal humps, speed platforms, raised crosswalks, or raised crossings
- speed humps are parabolic shape with a high point in the center

Applications:

- local and collector streets
- main roads through small communities
- typically, long enough for the entire wheelbase of a passenger car to rest on top
- work well in combination with textured crosswalks, curb extensions, and curb radius reductions
- can include a crosswalk

Design/Installation Issues:

- Tables are typically, 22 feet in the direction of travel with 6-foot ramps on each end and a 10-foot flat section in the middle; other lengths (32 and 48 feet) reported in U.S. practice
- most common height is between 3 and 4 inches (and reported as high as 6 inches)
- ramps are typically 6 feet long (reported up to 10 feet long) and are either parabolic or linear
- Humps typically range in different sizes based on government agency preference.

Potential Impacts:

- locations of tables or humps need to be carefully considered (driveway access, drainage, etc.)
- speeds are reduced
- traffic volumes have been reduced on average by 12 percent depending on alternative routes available
- collisions have been reduced on average by 45 percent on treated streets (not adjusted for traffic diversion)
- reported to increase pedestrian visibility and likelihood that driver yields to pedestrian
- adverse impact on transit/service vehicles and cyclists

Emergency Response Issues:

- typically preferred by fire departments over 12 to 14-foot speed humps
- generally, less than 3 seconds of delay per hump for fire trucks

TRAFFIC CIRCLES

Description:

- raised islands, placed in intersections, around which traffic circulates
- motorists yield to motorists already in the intersection
- require drivers to slow to a speed that allows them to comfortably maneuver around them
- sometimes called intersection islands
- different from roundabouts

Applications:

- intersections of local or collector streets
- one lane each direction entering intersection
- not typically used at intersections with high volume of large trucks and buses turning left

Design/Installation Issues:

- typically, circular in shape, though not always
- usually landscaped in their center islands
- often controlled by YIELD signs on all approaches
- key design features are the offset distance (distance between projection of street curb and center island), lane width for circling the circle, the circle diameter, and height of mountable outer ring for large vehicles such as school buses and trash trucks

Potential Impacts:

- no effect on access
- reduction in midblock speed of about 10 percent; area of influence tends to be a couple hundred feet upstream and downstream of intersection
- only minimal diversion of traffic

- intersection collisions have been reduced on average by 70 percent and overall collisions by 28 percent
- can result in bicycle/auto conflicts at intersections because of narrowed travel lane

Emergency Response Issues:

- emergency vehicles typically slow to approximately 13 mph; approximate delay of between 5 and 8 seconds per circle for fire trucks
- fire trucks can maneuver around traffic circles at slow speeds provided vehicles are not parked near the circle

Other/Special Considerations:

- large vehicles may need to turn left in front of the circle (which could be unsafe at higher volumes); legislation may be required to legally permit this movement
- quality of landscaping and its maintenance are key issues
- landscaping needs to be designed to allow adequate sight distance
- care must be taken to avoid routing vehicles through unmarked crosswalks on sidestreet approach