

Proposed Traffic Calming Measures Hilltop Community Mobility Plan

Chicanes



Description
Chicanes create a horizontal diversion of traffic through the use of staggered curb extensions or a serpentine roadway alignment. They discourage or make it impossible for drivers to drive in a straight line, which can reduce vehicular speeds. The simplest and most basic approach to create a chicane is to alternate on-street parking (parallel or angled) from one side to the other.

Benefits

- Forces drivers to drive more slowly and with greater awareness, particularly at mid-block locations
- Can green and beautify the streetscape with trees and/or vegetation, improving environmental quality and potentially incorporating stormwater source controls
- Considered on local streets with demonstrated speeding issues

Considerations

- May require loss of curbside parking
- Landscaping requires a partner for ongoing maintenance
- May require changes to street drainage or underground utilities
- Emergency vehicle needs must be accommodated
- Cost approximately \$10,000 to \$30,000 (USDOT FHA PEDSAFE)

Raised Intersections



Description
A raised intersection is a raised area of a roadway that deflects both the wheels and frame of a passing vehicle with the purpose of reducing speeds at an intersection. Raised intersections are appropriate for residential streets where speed limits are 25 mph.

Benefits

- Compels drivers to travel at speeds no higher than the street's design speed
- A raised intersection enhances the pedestrian environment and makes the crosswalk more apparent to drivers.
- Raised intersections can be an urban design element through the use of special paving materials.

Considerations

- Impacts emergency vehicle movement
- May generate additional noise
- May require changes to street drainage or underground utilities
- Cost is approximately \$25,000 to \$75,000 for a raised intersection (USDOT FHA PEDSAFE)

Curb Extensions



Description
An expansion of the curb line into the lane of the roadway adjacent to the curb (typically a parking lane) for a portion of a block either at a corner or mid-block.

Benefits

- Calms traffic by physically and visually narrowing the roadway
- At a corner, slows turning vehicles and emphasizes the right of way of crossing pedestrians
- Shortens crossing distance, reducing pedestrian exposure and minimum required signal time for crossing
- Improves the ability of crossing pedestrians and drivers to see each other
- Makes the crosswalk more apparent to drivers, encouraging them to stop in advance of the crosswalk and reducing illegal parking within crosswalk

Considerations

- Cannot be used where curbside travel (including bus, bicycle, or general traffic) lane exists
- May require changes to street drainage or underground utilities
- Emergency vehicle needs must be accommodated
- Cost approximately \$2,000 to \$20,000 (USDOT FHA PEDSAFE)

Stop Sign Switch



Description
On residential streets, stop signs can be switched from east-west to north-south, and vice versa.

Benefits

- Braided traffic control provides stop sign locations across paths throughout neighborhood to discourage attraction of cut-through routes
- Refrains from unnecessary installation of new stop signs
- Low cost implementation

Considerations

- Traffic volumes must be similar on intersecting streets
- Currently many roads have unimpeded travel, while crossroads stop at every intersection. Can look at opportunities to distribute stops across all roadways.

Gateway Treatments



Description
A gateway treatment is a traffic calming installation designed to slow traffic entering a lower-speed environment.

Benefits

- Such treatments signal drivers that they are entering a lower speed street segment, where they should reduce their speed, exercise more caution, and expect more pedestrians and/or bicyclists.
- Can help define a residential neighborhood and add to aesthetic appeal
- Can include signs alerting drivers of the neighborhood they are entering and asking them to drive slowly

Considerations

- Gateway treatments may consist of raised medians, traffic circles, narrowed lanes, bulb-outs, extensive landscaping, public art, special lighting fixtures or signage, or some combination of these.
- Landscaping requires a partner for ongoing maintenance
- May require changes to street drainage or underground utilities
- Emergency vehicle needs must be accommodated

Traffic Circles



Description
A round traffic island in the center of a traditional intersection. Primarily applicable to low traffic intersections on local streets with low speeds (25 mph or less).

Benefits

- Reduces speeds and accident rates, particularly when applied consistently to an area
- Can green and beautify the streetscape with art, trees and/or vegetation, improving environmental quality and creating an attractive focal point for the neighborhood
- Vehicles speeds reduced because motorists are forced to maneuver around traffic circle

Considerations

- Landscaping requires a partner for ongoing maintenance
- May require changes to street drainage or underground utilities
- Emergency vehicle needs must be accommodated
- Cost approximately \$6,000 to \$12,000 (USDOT FHA PEDSAFE)

1-way to 2-way Conversion



Description
By converting a residential one-way street to two-way, traffic speeds can be reduced. When two cars can not pass each other simultaneously, one car must slow down and pull over to let an oncoming car pass.

Benefits

- Can reduce speeds due to increased "friction" of the road
- Where applied in Hilltop, on-street parking is generally not removed
- Increases mobility for all roadway users
- Slower traffic increases safety for pedestrians and bicyclists

Considerations

- On-street parking regulations
- Width of road
- Driveways and fire hydrants allow for permanent pull-off/ yield locations
- Can be low cost to implement due to minimal infrastructure changes required

*Whitthorne Ave, identified as bicycle boulevard in previous Bicentennial Bikeways Plan, is the only two-way conversion in the Hilltop that may require on-street parking to be restricted on one side

Bike Boulevard



Description
A Bicycle Boulevard is a roadway that allows all types of vehicles, but which has been modified to enhance bicycle safety and security. Roadways are designed to be places where cars and bicycles can equally share right-of-way. Bike Boulevards tend to be residential streets with low traffic volumes.

Benefits

- Improve safety for bicyclists by slowing traffic and reducing conflicts at intersections
- Improve efficiency for bicyclists by providing continuous route with few stops
- Provide a quieter, less stressful bicycling environment that is especially attractive to children and inexperienced cyclists

Considerations

- Bicycle Boulevards may be as simple as pavement markings with wayfinding signs or as complex as a street with traffic diverters and bicycle signals.
- Bicycle Boulevards can include design features such as:
 - Traffic calming devices such as traffic circles and bulbouts
 - Bicycle destination signage
 - Pavement stencils indicating status as a Bicycle Boulevard
 - Crossing improvements at major arterials, such as traffic signals with bicycle-detection, four-way stops, and high-visibility crosswalks
 - Stop signs on streets crossing the Bicycle Boulevard