Traffic Calming Ideas Toolbox

April 2020
What is Traffic Calming?

“Traffic calming is 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.”

Source: Traffic Calming: State of the Practice (ITE/FHWA, 1999)
Learn More

safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

or Google: Traffic Calming ePrimer
What is a “Toolbox”?

• Lists the measures most applicable to Salt Lake City

• Describes each traffic calming measure and gives guidance on applicability

• Can be updated as new ideas are developed and tried
Toolbox Organization

Width Reduction
• Bulbout
• Choker

Vertical Deflection
• Speed Cushion (Lump)
• Speed Table

Horizontal Deflection
• Lateral Shift
• Chicane
• Realigned Intersection

• Median Island

• Raised Crosswalk
• Raised Intersection

• Traffic Circle
• Mini-Roundabout
• Roundabout
Toolbox Organization

**Routing Restriction**
- Diagonal Diverter
- Full Closure
- Half Closure
- Median Barrier
- Forced Turn Island

**Others**
- Driver Feedback Signs
  - Permanent or Temporary
- Signage
- Enforcement
Toolbox Organization

**Not Traffic Calming**

- Stop signs
- “Child at Play” and similar signs
- Citizen installed signage
- Items placed in roadway by citizens
Bulbout

Effectiveness on Speed
• Can slow traffic, but speed reduction is localized at measure
• -2.6 mph (-4%) average reduction

Effectiveness on Volume
• Little effect on volumes

Other Notes
• Medium cost
• Can be used on roads with higher speeds
• Can be combined with other measures

Location: 500 East & Edith Ave

Choker

Effectiveness on Speed
• Can slow traffic, but speed reduction is localized at measure
• -2.6 mph (-4%) average reduction

Effectiveness on Volume
• Little effect on volumes

Other Notes
• Medium cost
• Similar to a bulbout, but used at mid-block locations

Location: Hollywood Ave & McClelland St

Median Island

Effectiveness on Speed
• Speed reduction expected is minimal
• Speed reduction due to narrowing effect
• More beneficial at slowing turns

Effectiveness on Volume
• Little effect on volumes

Other Notes
• Medium cost
• May restrict access to driveways
• Landscaped islands can be costly

Location: Hollywood Ave & 900 East

Speed Cushions (Lumps)

Effectiveness on Speed
- Large speed reduction effect
- -8.9 mph (-24%) average reduction

Effectiveness on Volume
- Little effect on volumes (<10% change)

Other Notes
- Replaces the speed hump ("bump")
- Low cost
- Fire Dept. can traverse without delay

Location: Alameda, California

Speed Table / Raised Crosswalk

Effectiveness on Speed
- Speed reduction effect less than with speed cushions
- 7.3 mph (-20%) average reduction

Effectiveness on Volume
- Some effect on volumes (-12% change)

Other Notes
- Typically used instead of speed cushions on collector roadways
- Speed table used at the location of a crosswalk is a raised crosswalk

Location: 2700 South & 1700 East

Raised Intersection

Effectiveness on Speed
- Speed reduction expected is minimal
- < -1 mph (-1%) average reduction

Effectiveness on Volume
- Little effect on volumes

Other Notes
- Calms traffic on two roads at once
- Uncommon in the U.S.
- Added benefits for bike/ped crossings

Lateral Shift

Effectiveness on Speed

• Expected reduction in speed as motorists’ straight-path is obstructed
• However, insufficient data available

Effectiveness on Volume

• Little effect on volumes

Other Notes

• Can be created with alternating on-street parking and/or chokers
• Can be expensive for retrofits
• Helps break-up “straight path” driving

Location: Roberta St north of 800 South

Chicane

Effectiveness on Speed
- Speed reduction is greater on roads with higher traffic volume and equal volume in both directions.

Effectiveness on Volume
- Little to moderate

Other Notes
- Landscaping increases the visual effect.
- May be used in conjunction with parking regulation.

Source: NACTO

Realigned Intersection

Location: Salt Lake County

Effectiveness on Speed
- Speed reduction is limited to the intersection

Effectiveness on Volume
- Little effect on volumes

Other Notes
- Limited applicability
- Can be expensive

Traffic Circle & Mini Roundabout

Effectiveness on Speed
- Can slow traffic, but speed reduction is localized at measure
- -3.9 mph (-11%) average reduction

Effectiveness on Volume
- Little effect on volumes (-5%)

Other Notes
- Calms traffic on two roads at once
- Cost can be high, especially if landscaping is included
- Good safety record (29% reduction in collisions)

Location: 1700 East & Yalecrest Ave

Roundabout

Effectiveness on Speed
• Speed reduction expected is minimal

Effectiveness on Volume
• None

Other Notes
• Calms traffic on two roads at once
• May present challenge for bikes and pedestrians
• Good safety record (37% reduction in collisions)

Location: 900 South & 1100 East

Diagonal Diverter

Effectiveness on Speed
• Helps to slow traffic along the treated roadway
• -1.4 mph (-4%) average reduction

Effectiveness on Volume
• Substantial reduction in volume (-35%)

Other Notes
• Often found on neighborhood byways with cut-through access for bikes and pedestrians
• Can be designed to allow for emergency access

Location: Seattle

Half Closure

Effectiveness on Speed
• Helps to slow traffic along the treated roadway
• -6.0 mph (-19%) average reduction

Effectiveness on Volume
• Substantial reduction in volume (-42%)

Other Notes
• Can be designed to permit two-way bicycle use

Location: Commonwealth Ave east of State St

Full Closure

Effectiveness on Speed
- Expected to be similar to half closure
- However, insufficient data available

Effectiveness on Volume
- Substantial reduction in volume (-44%)

Other Notes
- Permeable closures can remain public and allow for bikes and pedestrians
- Added benefits for bike/ped crossings
- Requires City Council action

Location: 1100 West & 9 Line Trail

Median Barrier

Effectiveness on Speed
- Speed reduction expected is minimal
- Speed reduction due to narrowing effect

Effectiveness on Volume
- Little effect on volumes

Other Notes
- High cost
- Restricts access to driveways from both directions
- Potential issues with Fire Dept.

Location: 1200 East north of 800 South

Forced Turn Island

Effectiveness on Speed
• Speed reduction expected is minimal

Effectiveness on Volume
• Dependent on location

Other Notes
• Can exempt bikes from restriction

Location: 600 East & 2100 South

Speed (Driver) Feedback Signs

Effectiveness on Speed
• Increases driver awareness of speeding, but may not result in lower speeds
• Typically speed reduction occurs at/near sign
• Most effective in residential areas

Effectiveness on Volume
• No effect on volumes

Other Notes
• Can be used to collect data
• Portable options available (trailers, temporary signs)

Location: Multiple Locations in Salt Lake City

Signage

Effectiveness on Speed
• Speed reduction expected is minimal

Effectiveness on Volume
• Minimal, but varies by sign type

Other Notes
• Very low cost
• Many options not MUTCD compliant

Location: South Temple & Virginia St

Enforcement

Effectiveness on Speed
• Speed reduction only during enforcement period

Effectiveness on Volume
• No effect on volumes

Other Notes
• Depends on local law enforcement resources

What Speed Can We Expect? with Speed Humps

Source: Traffic Calming ePrimer (ITE/FHWA, 2017)
What Speed Can We Expect? with Speed Humps

"After" Speeds for Speed Humps
(Frequency of Distribution of 85th Percentile)

Source: Traffic Calming ePrimer (ITE/FHWA, 2017)
What Speed Can We Expect with Speed Humps

"After" Speeds for Speed Humps
(Frequency of Distribution of 85th Percentile, When "Before" is 31-35 mph)

Source: Traffic Calming ePrimer (ITE/FHWA, 2017)
What Speed Can We Expect? with Speed Tables

"After" Speeds for Speed Tables
(Frequency of Distribution of 85th Percentile)

Source: Traffic Calming ePrimer (ITE/FHWA, 2017)
What Speed Can We Expect? with Speed Tables

"After" Speeds for Speed Tables
(Frequency of Distribution of 85th Percentile, When "Before" is 36-40 mph)

Source: Traffic Calming ePrimer (ITE/FHWA, 2017)
What Speed Can We Expect with Traffic Circles

"After" Speeds for Traffic Circles
(Frequency of Distribution of 85th Percentile)

Source: Traffic Calming ePrimer (ITE/FHWA, 2017)
Learn More

safety fhwa dot gov speedmgt traffic calm cfm

or Google: Traffic Calming ePrimer