

Channel Road Traffic Calming

Option 1: Speed Humps

Description

 Raised pavement placed lateral to vehicle traffic to create vertical deflection and reduce traffic speed

Design

- Typically 12 feet in length along the full roadway width, with a 3" vertical deflection
- Installed in series with spacings of 200 500 feet to control speeds for extended lengths
- Delineated by pavement markings or signage

Effect on Traffic

- Vehicle speed reduced to 15-20 mph when traversing speed humps
- Anticipated speed reduction of 20% 25% between speed humps
- Can result in slight reductions in thru-traffic volume

- Speed humps create an unavoidable vertical impediment to traffic and are an effective measure for speed control
- Speed humps are a permanent addition to the roadway pavement and cannot be removed without pavement reconstruction
- Create obstacle for snow plowing operations
- Minor delay to emergency vehicle response



Exhibit 1 Speed Hump Traffic Calming

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Channel Road Traffic Calming

Option 2: Speed Cushions (Speed Pads)

Description

 Two or more raised pavement areas placed lateral to vehicle traffic to create vertical deflection and reduce traffic speed

Design

- Typically 12 feet in length and 7 feet in width, with a 3 inch vertical deflection
- Spacing between cushions/pads designed to accommodate emergency vehicles bypass
- Installed in series with spacings of 200 500 feet to control speeds for extended lengths
- Delineated by pavement markings or signage

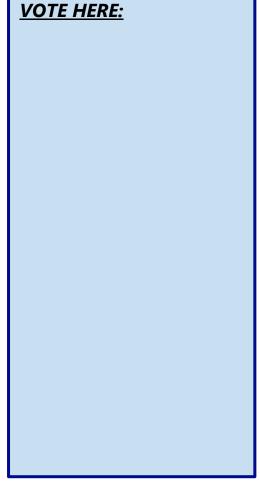
Effect on Traffic

- Vehicle speed reduced to 15-20 mph when traversing speed humps
- Anticipated speed reduction of 20% 25% between speed humps
- Can result in slight reductions in thru-traffic volume

- Create an unavoidable vertical impediment to traffic and are an effective measure for speed control
- Speed cushions are a permanent addition to the roadway pavement and cannot be removed without pavement reconstruction
- Create obstacle for snow plowing operations



Exhibit 2 Speed Cushions (Speed Pads)





Channel Road Traffic Calming

Option 3: Curb Bump-Outs

Description

 Curb extensions into the roadway at intersections or midblock locations which narrow the roadway and encourage lower traffic speeds



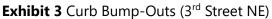
- Curb extensions restrict roadway width in select locations, reducing "margin for error" perceived by drivers
- Can be installed in series to create speed control over extended roadway lengths

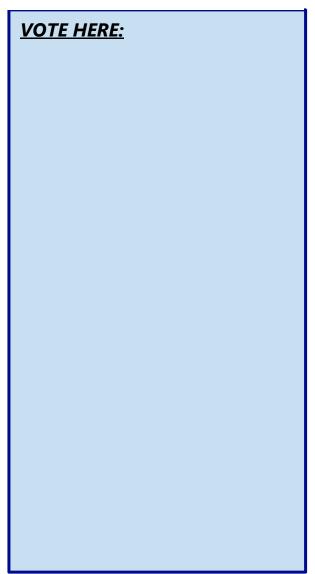
Effect on Traffic

 Reductions in vehicle speed dependent on traffic volume and distribution

- Curb bump-outs create protected adjacent on-street parking
- Construction of bump-outs requires loss of street parking in select locations
- Bump-out design requires additional considerations for roadway drainage
- Without dedicated pedestrian facilities, bicyclists and pedestrians may have to enter travel lane to navigate curb bump-outs









Channel Road Traffic Calming

Option 4: Realigned Intersection

Description

Reconfiguration of intersection approaches using lateral shifts to promote lower traffic speeds

Design

Lateral shift of intersection approaches introduces horizontal deflection, requiring lower traffic speeds to navigate the intersection

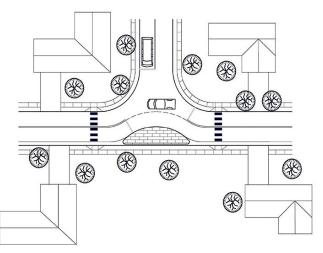


Exhibit 4 Realigned T-Intersection

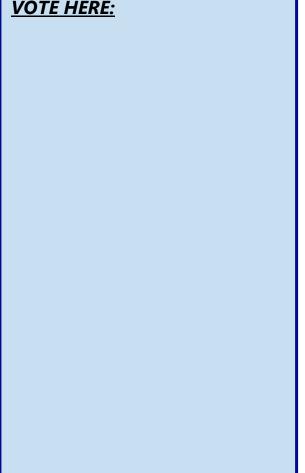
Effect on Traffic

Can reduce speeds within intersection between 5 and 13 mph, with speed reductions in the vicinity between 1 and 6 mph

Pros & Cons

- Horizontal deflection of approaches creates effective speed control measure at intersections
- Intersection modification requires additional design considerations for roadway drainage
- Only creates speed reduction benefits in a single location

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Channel Road Traffic Calming

Option 5: Traffic Circle

Description

Raised island placed within an unsignalized intersection, around which traffic circulates

Design

 Circulation around traffic circle creates horizontal deflection of travel lanes, requiring a reduction in traffic speed to navigate the intersection

Effect on Traffic

- Can reduce speeds within intersection between 5 and 13 mph, with speed reductions in the vicinity between 1 and 6 mph
- Circulation of traffic can also reduce angle and turning collisions

- Traffic circulation results in reductions in traffic speed and collisions
- Increased construction cost compared to alternative traffic calming measures
- Intersection modification requires additional design considerations for roadway drainage
- Only creates speed reduction benefits in a single location
- Tight radius of traffic circle restricts left-turn movements for large design vehicles



Exhibit 5 Traffic Circle

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2024 Street Rehabilitation Project Channel Road Traffic Calming

Option 6: One-Way Conversion (68th Avenue)

Description

One-way conversion of 68th Avenue at Highway
65 East Service Drive, restricting eastbound access to Channel Drive from the west

Design

 Curb bump-out and extension along 68th Avenue with permanent signage restricting eastbound traffic to Channel Road

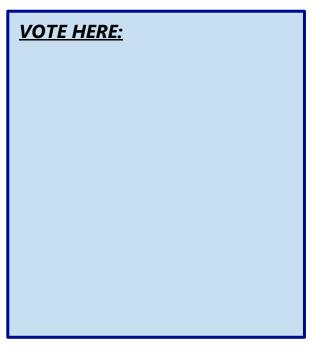
Effect on Traffic

- Eliminates eastbound traffic along 68th Avenue and access to Channel Road from 68th Avenue
- No anticipated impacts to traffic speeds on Channel Road

- Outside street rehabilitation project area and can be implemented during or following construction
- Eliminates access to Channel Road from Trunk Highway 65 (Central Avenue) to the west
- Elimination of access point to Channel Road will concentrate traffic volume at entrances from Mississippi Street and Pierce Street
- Does not preclude thru-traffic from Channel Road west to Trunk Highway 65 and the East Service Drive



Exhibit 6 One-Way Conversion (68th Avenue)





Channel Road Traffic Calming

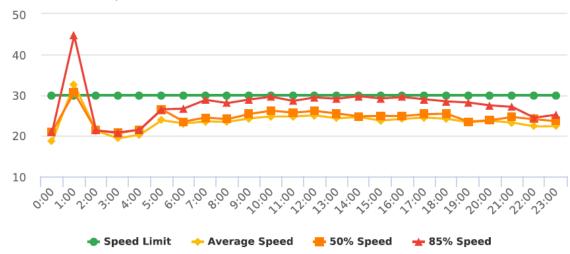
Traffic Speed Data (Channel Road)

Description

Traffic volume and speed data gathered using StatTrak Traffic Data Collector

10/02/2023 - 10/10/2023 - Existing Conditions

- Average Speed: 23.96 MPH
- 85th Percentile Speed: 28.54 MPH



12/11/2023 – 01/01/2024 – Lucia Lane Closed

- Average Speed: 24.02 MPH
- 85th Percentile Speed: 28.05 MPH

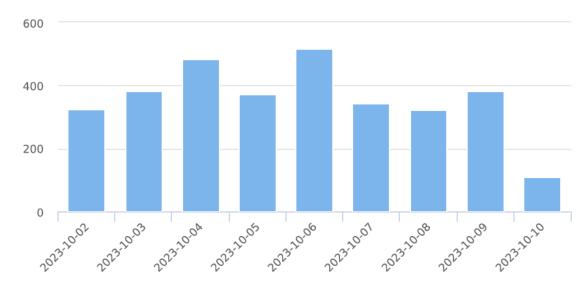




Channel Road Traffic Calming

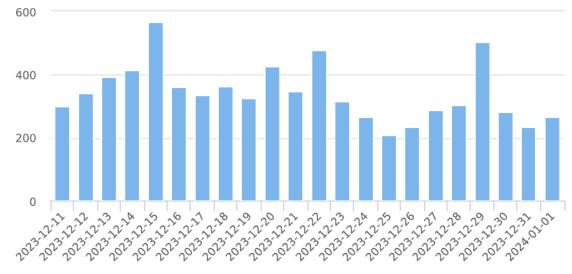
Traffic Volume Data (Channel Road) 10/02/2023 – 10/10/2023 – Existing Conditions

Average Daily Volume: 360 Vehicles per Day



12/11/2023 – 01/01/2024 – Lucia Lane Closed

• Average Daily Volume: 343 Vehicles per Day



Other Daily Traffic Volumes

- Pierce Street: 200 Vehicles per Day
- Lucia Lane: 454 Vehicles per Day
- 68th Avenue: 700 Vehicles per Day
- Mississippi Street: 3,925 Vehicles per Day