



Public & Traffic Safety Committee AGENDA

April 09, 2025, 4:00 PM
Sweet Home City Hall, 3225 Main Street
Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones – Anyone who wishes to speak, please sign in.

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Meeting Information

The City of Sweet Home is streaming the meeting via the Microsoft Teams platform and asks the public to consider this option. To view the meeting live, online visit <http://live.sweethomeor.gov>. If you don't have access to the internet you can call in to 541-367-5128, choose option #1 and enter the meeting ID to be logged in to the call. Meeting ID: # 275 806 320 590

Call to Order & Pledge of Allegiance

Roll Call

Approval of Minutes

[2025-02-12](#) Public & Traffic Safety Committee Meeting Minutes

Old Business

[Engine](#) Brakes Update

[First](#) Avenue Traffic Calming Recommendations

New Business

Police Department Programs

New Business

[Police](#) Department Monthly Reports

Good of the Order

Adjournment

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.



Public & Traffic Safety Committee MINUTES

February 12, 2025, 4:00 PM
Sweet Home City Hall, 3225 Main Street
Sweet Home, OR 97386

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Call to Order

The meeting was called to order at 4:00 PM.

Roll Call

PRESENT

Chair Frank Gallagher
Vice Chair Joe Graybill
Committee Member Vince Adams
Committee Member Erin Barstad
Committee Member Bud Mather

ABSENT

Committee Member Mykal Hildebrand

COUNCIL

President Pro Tem Josh Thorstad, Council Liaison
Councilor Dylan Richards, Council Liaison (virtual)

STAFF

Cecily Hope Pretty, City Manager Pro Tem
Angela Clegg, Planning & Building Manager
Jason Ogden, Police Chief

Approval of Minutes

2024-11-13 Public & Traffic Safety Committee Meeting Minutes

Committee Member Adams moved to approve the minutes of the November 13, 2024 Public & Traffic Safety Committee. Committee Member Mather seconded the motion. The motion carried by the following vote:

AYE: Gallagher, Graybill, Adams, Barstad, Mather

ABSENT: Hildebrand

Old Business

First Avenue Truck Signage

City Manager Pro Tem Pretty stated that the size and quantity of signage on First Avenue to indicate through-trucks were not allowed. Chair Gallagher stated that he had observed a reduction in trucks on First Avenue since the installation of the new signage.

No action was required for this item.

First Avenue Traffic Control Update

City Manager Pro Tem Pretty stated that an engineering firm had been selected to perform an analysis and make recommendations regarding temporary traffic controls on First Avenue and work was anticipated to begin soon. She noted that the Committee had recommended speed humps on First Avenue to City Council in 2015 for a cost of \$10,800 but City Council voted against approval of the new traffic control.

Vice Chair Graybill expressed interest in observational data regarding any preferred detours once traffic controls were installed.

Committee Member Adams expressed support for both permanent and temporary speed humps based on his observations in other cities.

No action was required for this item.

First Avenue Crosswalks

Chair Gallagher expressed support for additional or improved crosswalks on First Avenue, such as at Nandina Street.

Vice Chair Graybill noted the lack of a crosswalk at First and Main Street and recommended its addition. Committee Member Adams expressed agreement with both recommendations.

No action was required for this item.

Transportation System Plan

City Manager Pro Tem Pretty reminded the Committee that the Transportation System Plan (TSP) was approaching its final draft and stated that the first reading of the Ordinance to adopt the TSP was tentatively scheduled for City Council on April 22, 2025. She noted that Committee Members could submit comments to staff for final incorporation. Planning and Building Manager Clegg added that it would come before the Planning Commission before City Council for an additional public comment opportunity.

Vice Chair Graybill asked if the final draft was available for public review yet. City Manager Pro Tem Pretty replied that it was not but it would be distributed once available.

No action was required for this item.

New Business

Engine Brake Usage

Chair Gallagher stated that he had received community feedback regarding the use of engine brakes (or “jake brakes”) despite a prohibition in City limits. Discussion ensued regarding enhanced signage reminding drivers of the prohibition. City Manager Pro Tem Pretty stated that existing signage was likely under the jurisdiction of the Oregon Department of Transportation (ODOT) but staff would investigate options.

Chief Ogden stated that engine braking was prohibited on all highways in Oregon.

No action was required for this item.

Good of the Order

Vice Chair Graybill asked of a prior request for stop signs at 12th Avenue and Tamarack. Chief Ogden stated that he reviewed the location and it was not an appropriate location for additional signage.

Committee Member Adams expressed concern regarding parking commercial vehicles on residential streets, particularly with those parked facing the wrong direction.

City Manager Pro Tem Pretty reminded the Committee that public safety and crime-related items are under the purview of the Committee if there were items they wished to discuss. She stated that the Police Department levy would be on the May ballot and that it funded the entirety of the department.

Committee Member Adams asked of issues related to bicycle safety in Sweet Home. City Manager Pro Tem Pretty stated that a section of the TSP addressed needs to enhance bicycle safety and facilities.

President Pro Tem Thorstad requested that the monthly data published in City Council agendas regarding Police Department statistics be included in future Committee packets.

Adjournment

There being no further discussion, the meeting was adjourned at 4:26 PM.

Chair

ATTEST:

City Manager Pro Tem, Ex Officio City Recorder

DRAFT

Engine Brake FACTS

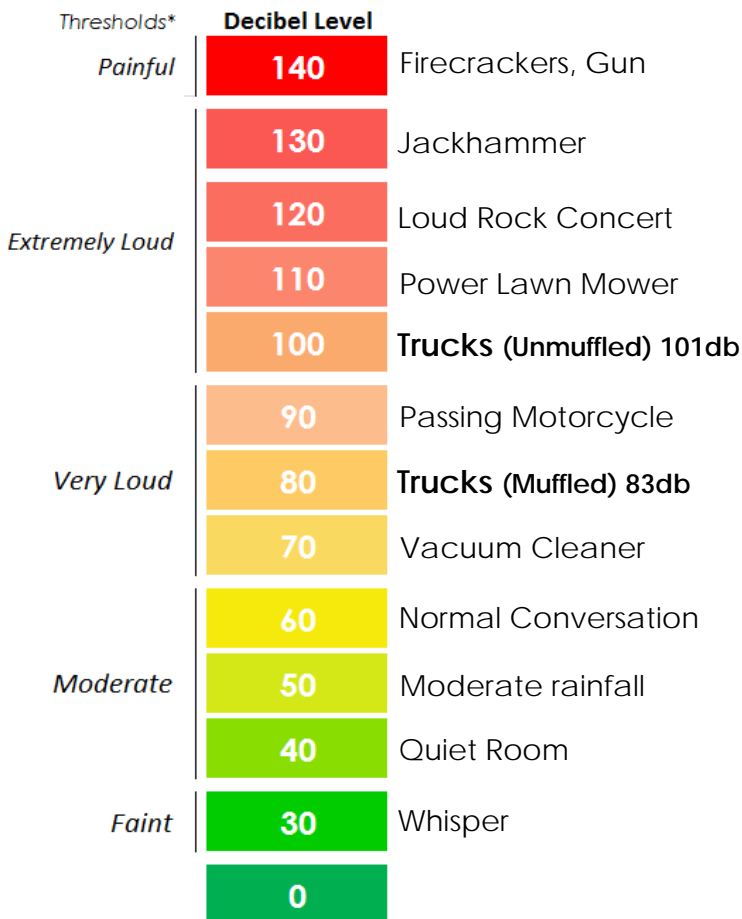
Muffled Engine Brakes are commonly also known as "Jake Brakes"

How Loud are Muffled Engine Brakes?

Even when trucks engine brakes are muffled the noise they create fall within the threshold of **very loud**.

Depending on the surroundings this noise may be worse in some areas compared to others as it may echo off buildings or bodies of water.

Although, frustrating these brakes are improving **safety** for **everyone** on the road.



*Thresholds are based on the American Speech Language Hearing Association for noise levels

"But I have seen signs that say no Jake Brakes in town"

Local agencies (such as cities) may pass ordinances prohibiting the use of "Jake Brakes" on local streets.

This does not apply to state highways.

Why Can't ODOT Restrict Engine Brakes?

Engine brakes improve safety of the open road for everyone by reducing the chance of brake failure.

Normal braking creates heat by friction. When there is too much heat it can increase the chance for brakes to overheat and fail.

By Oregon Law muffled engine brakes can not be restricted on **State Highways**, including within city limits.

The Law & Enforcement

Unmuffled engine brakes are illegal in Oregon whether it is signed or not. Most trucks abide to the law and are now muffled.

It is up to the interpretation of local law enforcement to determine if the noise by a truck is excessive.



M E M O R A N D U M

DATE April 7, 2025

TO City of Sweet Home
Cecily Pretty, Administrative Services Director

FROM Ryan Quigley, PE

PROJECT NAME City of Sweet Home – 1st Avenue Traffic Reduction Summary of Recommendations

PROJECT NO. 215.01

Background

The City of Sweet Home has received complaints from 1st Avenue residents for a number of years concerning the number of vehicles utilizing 1st Avenue as a connector between Highway 20 and Highway 228 to avoid the highway intersection traffic light. The City Council has requested a trial installation of temporary traffic control devices on 1st Avenue for a period of six months to evaluate the effectiveness of the reduction of vehicle trips on 1st Avenue.

1st Avenue is a fully improved two-lane local residential street with a 25 mph speed limit. The Right-of-Way (ROW) is 40 feet wide and the curb-to-curb width is 32 feet. It runs between Highway 20 (Main Street) and Highway 228 (W. Holley Road) and contains a tee intersection with Nandina Street. 1st Avenue is approximately 1,480 feet long, straight, and relatively flat. The City collected two weeks of traffic data from April 11, 2024 through April 25, 2024 and measured approximately 1,500 to 2,000 vpd (vehicles per day). Traffic consisted of a mix of passenger and commercial vehicles including large trucks.

The City has requested The Dyer Partnership provide recommendations and cost estimates for temporary devices on 1st Avenue.

Researched Solutions

Dyer researched traffic reduction and traffic calming measures as published by the Oregon Department of Transportation (ODOT), Federal Highway Administration (FHWA), Institute of Transportation Engineers (ITE), and National Association of City Transportation Officials (NATCO).

If the initial six-month trial period proves effective, then the City may proceed with design and installation of a permanent version of the selected traffic calming measure. An assessment of which permanent devices was performed. An evaluation of temporary versions of the selected devices for potential use for the trial period was also completed.

Dyer conducted a site visit on February 4, 2025 to review existing conditions. Crash data provided by the Police Department was also reviewed to inform which measures are recommended for this project. Six of the seven accidents appear to be related to this section of roadway based on the reported crashes from August 2022 through June 2024. One accident involved the Main Street intersection; three accidents involved the Holley Road intersection; and two accidents involved midblock incidents with the residents' vehicles.

Countermeasures that specifically target volume reduction typically include permanent physical features such as traffic signals, lane channelization, and one- or two-way closures. Speed reduction countermeasures, commonly known as traffic calming measures, may also produce a secondary effect of volume reduction.

Traffic calming measures which may be effective on both speed and volume reduction include:

Chicane (Lateral Shift)

- *Pros:* Reduces the length of straight stretches. Horizontal alignment shifts encourage slower traffic. Can be achieved by roadway striping (low cost) depending on site conditions.
- *Cons:* Need to reduce curbside parking to accommodate lane shifts. Risk of drivers ignoring striping and continuing to drive in a straight path. High capital cost if achieved by roadway geometry changes.

Corner Extension Bulb-Outs

- *Pros:* Narrowed lane width at bulb-out encourages slower traffic. Shortened pedestrian path to cross the street.
- *Cons:* Moderate construction cost. Potential impacts to gutter drainage must be considered.

Chokers (Narrowing)

- *Pros:* Can be installed mid-block. Narrowed lane width at bulb-out encourages slower traffic. Shortened pedestrian path to cross the street.
- *Cons:* Moderate construction cost. Potential impacts to gutter drainage must be considered.

Raised Intersection

- *Pros:* Improved driver awareness of intersections and pedestrian crossings. Vehicles slowed at the on/off ramps.
- *Cons:* High construction cost. Anticipated to be less effective at slowing traffic than other measures due to the length of the raised path.

Midblock Crosswalk

- *Pros:* Pedestrian signage and crosswalk striping may reduce vehicle speeds, especially if paired with a stop sign. Low construction cost.
- *Cons:* A midblock stop sign would be an atypical use of this traffic control device as per the Manual of Uniform Traffic Control Devices (MUTCD). Installing a midblock crosswalk without a stop sign may encourage pedestrians to cross where traffic does not expect them, potentially increasing the public safety hazard.

Traffic Circle

- *Pros:* Physical barrier installed at intersections and/or midblock would break up the straight line of travel and reduce speeds.
- *Cons:* High construction cost. May need to reduce curbside parking to accommodate lane shifts.

Median Island

- *Pros:* Narrowed lane width encourages slower traffic.
- *Cons:* High construction cost. The existing roadway geometry is already narrow when allowing for parking on both curbs. May need to remove parking on one side to accommodate emergency vehicles.

Median Delineators

- *Pros:* Narrowed lane width encourages slower traffic. Low construction cost.
- *Cons:* The existing roadway geometry is already narrow when allowing for parking on both curbs. May need to remove parking on one side to accommodate emergency vehicles. High likelihood of vehicle collisions with delineators based on observations for recently installed Main Street pedestrian crossings.

Speed Hump

- *Pros:* Vertical change in the roadway reduces traffic speeds. Design speed 15 to 20 mph at each hump is suitable for residential roads. Low construction cost.
- *Cons:* Cumulative effect of multiple humps slows emergency vehicle response times.

Speed Cushion

- *Pros:* Similar to a speed hump for passenger vehicles. Cushions spaced to accommodate the wheel base of emergency vehicles means response times are not affected.
- *Cons:* Commercial vehicles having the same wheel base as emergency vehicles will also not be affected.

Speed Table

- *Pros:* Reduced effect on emergency vehicles compared to speed humps.
- *Cons:* Design speed of 25 to 45 mph is above the posted speed limit and therefore not likely to be effective at reducing traffic volume at this site. Moderate construction cost.

Measures affecting lane alignments (chicanes, traffic circles, and islands) may not be received favorably by area residents based on the crash history involving at least one lane departure. Therefore, it was determined the measures which do not affect the lane alignments would be preferable for this installation.

Measures involving lane narrowing (bulb-outs, chokers, and medians) tend to have higher construction costs.

Measures Selected for Further Evaluation

Speed humps and speed cushions are the most likely traffic calming measures to be effective at reducing traffic speeds (and therefore traffic volume, which is the primary goal) for this particular project based on the above preliminary evaluation.

Dyer also researched installation guidance in the MUTCD 2009 and 2023 editions, published by FHWA; and the Oregon Supplement to the MUTCD, 2011 edition and proposed 2023 edition which are published by ODOT. The MUTCD is the governing standard for roadway signage, striping, and other control devices. The 2009 edition and the corresponding Oregon Supplement is currently in effect in Oregon. The 2023 edition has not yet been approved by the Oregon Transportation Commission, but is anticipated to be adopted with its corresponding Oregon Supplement in the next year or two.

Option 1: Speed Humps

Generally, vendors and local agencies use inconsistent terminology in regards to speed bumps, humps, and tables. This memo has followed ITE and FHWA terminology as found in the attached ITE fact sheets.

Speed humps are parabolic mounds on the pavement which are typically three to four inches in height and 12 to 14 feet in length. They are suitable for speed reduction on local streets with posted speed limits of 30 mph or less and relatively low daily traffic volumes (below 4,000 vpd).

A single speed hump reduces speeds to approximately 15 to 20 mph over the hump and also influences speeds for approximately 100 feet on either side. The NACTO guidance indicates spacing of 500 feet or less is needed to achieve an 85th percentile speed of 25 to 35 mph. Typical installation spacing is 400 to 500 feet with closer spacing of 300 feet occasionally chosen for more severe speeding problems. Observations of local installations in Oregon have found spacing as close as 250 feet.

The intended benefit of speed humps is reduced speed. Reduced traffic volume may occur as a secondary benefit. The ITE estimates speed humps reduce traffic volumes by approximately 20 percent. This percentage is expected to be influenced by factors such as spacing and the posted speed limit.

Speed humps are typically installed across nearly the entire road width, with one to three feet left clear against each curb to allow for drainage. The MUTCD Sections 2C.27 and 3B.29 cover speed hump signage and markings, respectively. Speed humps should be accompanied by the Speed Hump W17-1 Sign in advance of the hump. A series of speed humps may be served by a single sign in advance of the first hump. The ODOT standard detail DET4560 (attached) also provides typical speed hump markings.

Additionally, double installation of speed humps were considered similar to speed bumps in parking lots. Two humps would be spaced very closely to further reduce speeds. However, a reference was not found for the installation in the industry references. Therefore, there is no data on its effectiveness compared to conventional speed hump installations or any unforeseen negative effects.

Design spacing of 250 feet was selected for this project. Specific locations were selected to avoid conflicts with driveways and utilities. A total of four speed humps and four (4) Speed Hump Signs are proposed.

Generally, advertised temporary speed humps measure three feet or less in the direction of travel and thus would be more accurately called speed bumps. Those are not suitable for this application. In order to accurately evaluate the effectiveness of the trial installation, it is required to use equipment of approximately the same size and shape as would be used in a permanent installation.

Only one manufacturer was identified for temporary speed humps that are dimensionally similar to permanent asphalt humps. They produce modular rubber units that can be configured multiple ways as speed humps or cushions. Product literature is attached. These units are advertised as being durable for long-term installation, so they could be left in place if the trial is successful. However, it appears installation is very labor-intensive. Each hump assembly would contain approximately 78 tiles and 468 bolts drilled into the existing road.

The cost estimate for this option is \$43,800 for materials and freight. Labor costs have not been estimated but are expected to be significant due to the number of panels to make up the speed hump.

For comparison, the estimated material costs to install temporary asphalt humps on top of the existing road surface is \$8,400.

Option 2: Offset Speed Humps

Conventional speed humps affect all vehicles including emergency response. Use of multiple speed humps on main emergency response routes is undesirable as the cumulative effect can cause noticeable delays in emergency response times. 1st Avenue is not considered a main emergency response route, but it does provide access to adjacent subdivisions. Therefore, a consideration of offset speed humps and speed cushions is also included.

Offset humps extend across a single travel lane rather than the entire street width. Humps for each direction of travel are separated by 50 feet or more. This separation allows emergency vehicles to weave around the humps without slowing.

A risk is that the traveling public may also weave around the humps. A 2003 installation of offset speed tables in Beaverton used only centerline striping to communicate to drivers to stay in their travel lane. After construction the City received many complaints of traffic weaving around the tables. Raised centerline markers were added on each approach and in the space between offsets. Complaints were reduced after installation of the raised markers. Therefore, including raised centerline markers in the cost estimate is recommended.

The cost estimate for this option using the modular rubber humps is \$44,880 for materials and freight. The estimate for this option using asphalt humps is \$9,440. Labor costs have not been estimated.

Option 3: Speed Cushions

Speed cushions are very similar to speed humps, but instead of extending across the entire travel lane, they are spaced to accommodate the wheel base of emergency vehicles. Emergency vehicles can drive straight through the speed cushion zone without being affected by a vertical hump. Speed cushions are recommended on main response routes where multiple streets with speed humps would have a large cumulative effect. 1st Avenue is not a main response route; therefore, the implementation of speed cushions is discretionary.

This option would require a set of three speed cushions at each location to span the street width. There are concerns that commercial vehicles having a similar wheel base would likely continue using 1st Avenue as a cutoff route. Although this measure is worth considering, it is expected to be less likely to meet the project goals than speed humps.

The cost estimate for this option using the modular rubber humps is \$26,800 for materials and freight. The estimate for this option using asphalt humps is \$7,960. Labor costs have not been estimated.

Conclusion and Recommendation

The listed options and costs are summarized in the attached cost estimate.

Dyer recommends Option 1: Speed Humps for configuration. This option offers the greatest effectiveness with the least anticipated drawbacks.

Additionally, Dyer recommends constructing temporary asphalt speed humps for materials selection. This option will be much more cost-effective and reduce the construction timeline over the modular rubber humps. Surface preparation of the existing roadway should include cleaning and tack coat. The tapered edges of the humps are likely to crack off over time but should be sufficient to determine effectiveness over the six-month trial period. If more durable installation is needed, then the existing pavement should be ground down two inches to provide for a thicker asphalt layer at the hump edges.

Option 1a - Modular Speed Humps (Full street width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost
1	14' x 30' x 3" Rubber Speed Hump ¹	4	EA	\$10,700	\$42,800
2	Signage	4	EA	\$250	\$1,000
Materials Cost					\$43,800

Option 2a - Modular Offset Speed Humps (Half street width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost
1	14' x 15' x 3" Rubber Speed Hump ¹	8	EA	\$5,350	\$42,800
2	Signage	4	EA	\$250	\$1,000
3	Pavement Markers	360	EA	\$3	\$1,080
Materials Cost					\$44,880

Option 3a - Modular Speed Cushions (7.5' width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost
1	14' x 6' x 3" Rubber Speed Cushion ¹	12	EA	\$2,150	\$25,800
2	Signage	4	EA	\$250	\$1,000
Materials Cost					\$26,800

Notes:

1. Estimated freight is included in material unit cost.
2. Does not include design engineering.
3. Does not include installation costs.

Option 1b - Asphalt Speed Humps (Full street width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost
1	14' x 30' x 3" Asphalt Speed Hump ¹	4	EA	\$1,550	\$6,200
2	Painted Hump Markings	8	EA	\$150	\$1,200
3	Signage	4	EA	\$250	\$1,000
Materials Cost					\$8,400

Option 2b - Asphalt Offset Speed Humps (Half street width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost
1	14' x 15' x 3" Asphalt Speed Hump ²	8	EA	\$770	\$6,160
2	Painted Hump Markings	8	EA	\$150	\$1,200
3	Signage	4	EA	\$250	\$1,000
4	Pavement Markers	360	EA	\$3	\$1,080
Materials Cost					\$9,440

Option 3b - Asphalt Speed Cushions (7.5' width, 14' long)					
No.	Description	Qty	Unit	Unit Cost	Total Cost
1	14' x 7.5' x 3" Asphalt Speed Cushion ³	12	EA	\$380	\$4,560
2	Painted Hump Markings	16	EA	\$150	\$2,400
3	Signage	4	EA	\$250	\$1,000
Materials Cost					\$7,960

Notes:

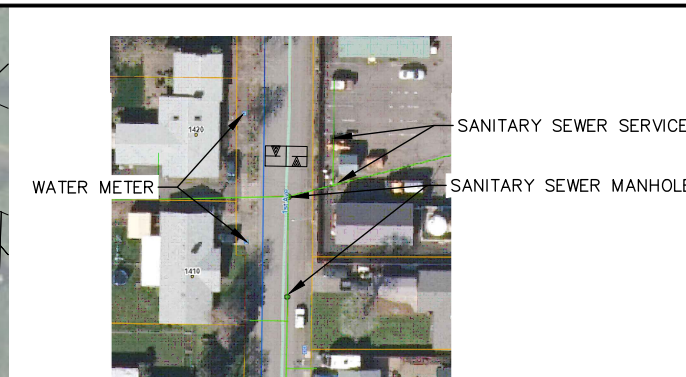
1. Based on estimated 5.1 tons per hump and \$300/ton small quantity asphalt cost.
2. Based on estimated 2.6 tons per half-street hump and \$300/ton small quantity asphalt cost.
3. Based on estimated 1.3 tons per cushion and \$300/ton small quantity asphalt cost.
4. Does not include design engineering.
5. Does not include installation costs.

March 21, 2025

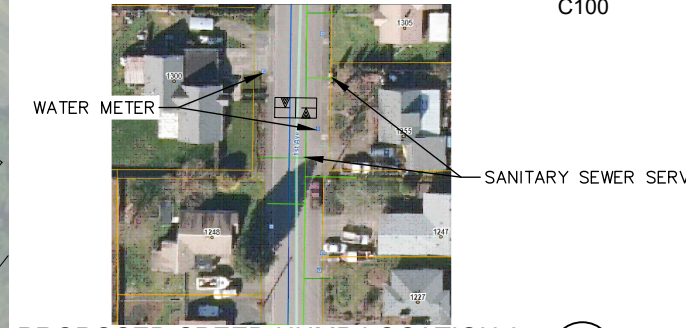
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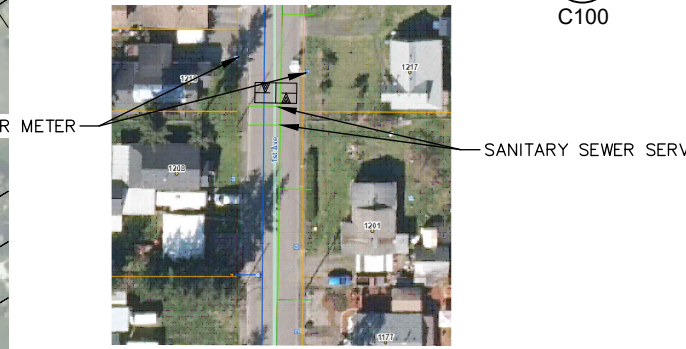
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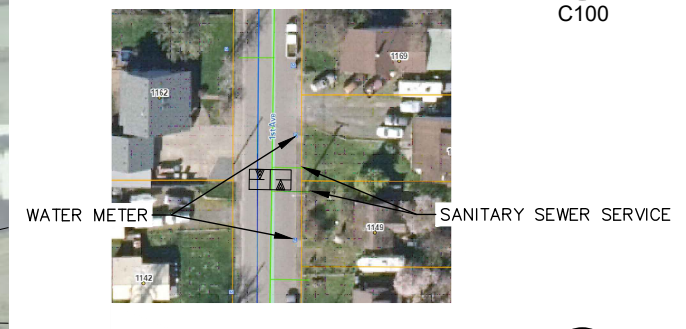
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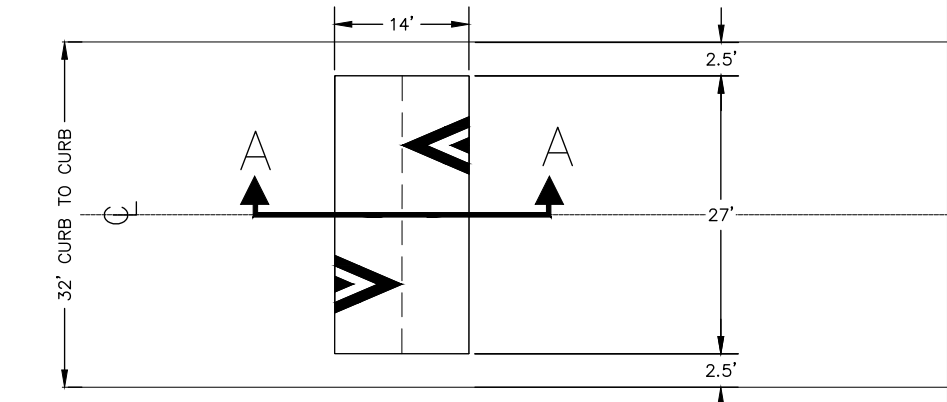
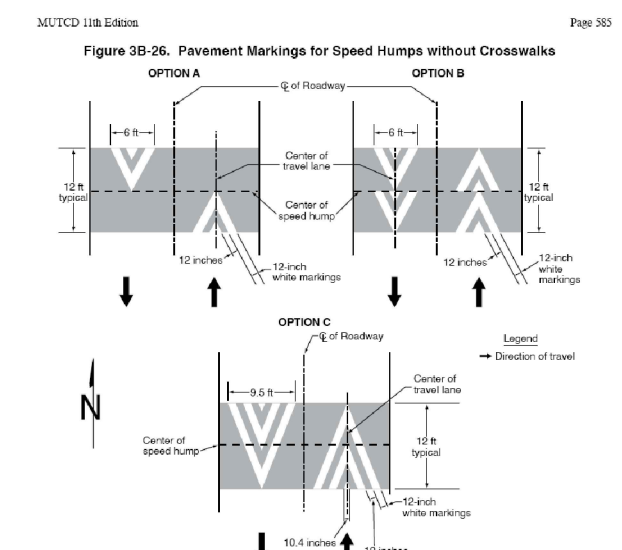
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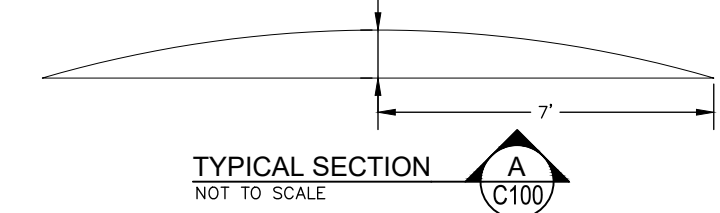
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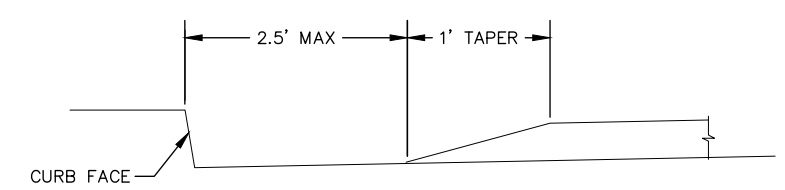
PROPOSED SPEED HUMP LOCATION 4 (5) C100



PLAN VIEW (6) C100 NOT TO SCALE



TYPICAL SECTION (A) C100 NOT TO SCALE



CURB DETAIL (7) C100 NOT TO SCALE



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APPROVED BY:	DATE:	REVISED	DESCRIPTION	SUBMIT.	APPR'D.	DATE

D THE DYER PARTNERSHIP ENGINEERS & PLANNERS, INC.
481 S. MAIN ST.
LEBANON, OREGON 97355
TELEPHONE: (541) 405-4520
www.dyerpart.com

LINE IS 1/8" AT FULL SCALE
IF NOT 1/8" - SCALE ACCORDINGLY

**NW 1ST AVE TRAFFIC CONTROL
CITY OF SWEET HOME**

**OPTION 1
PROPOSED SPEED HUMP LAYOUT**

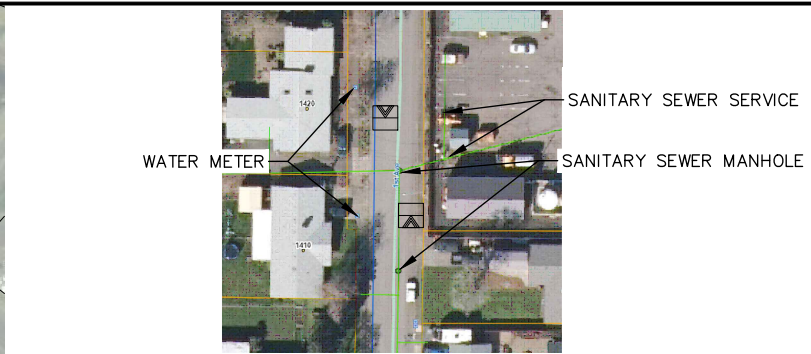
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DATE MAR 2025	SHEET NO. 1 OF 3

March 21, 2025

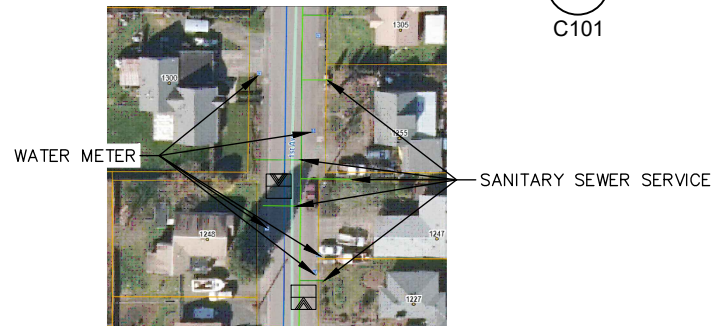
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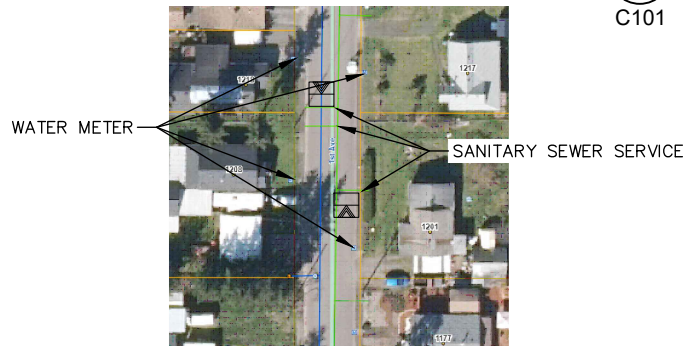
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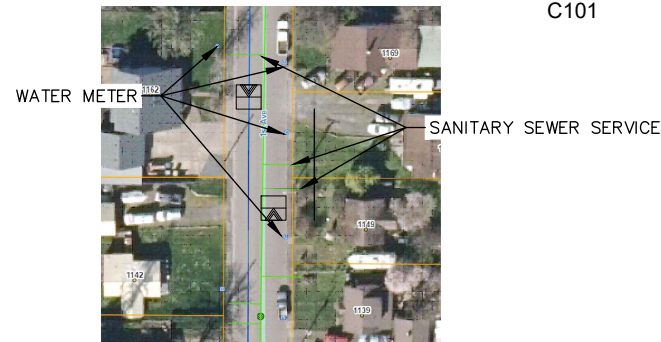
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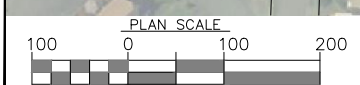
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PROPOSED OFFSET SPEED HUMP LOCATION 3 4
C101

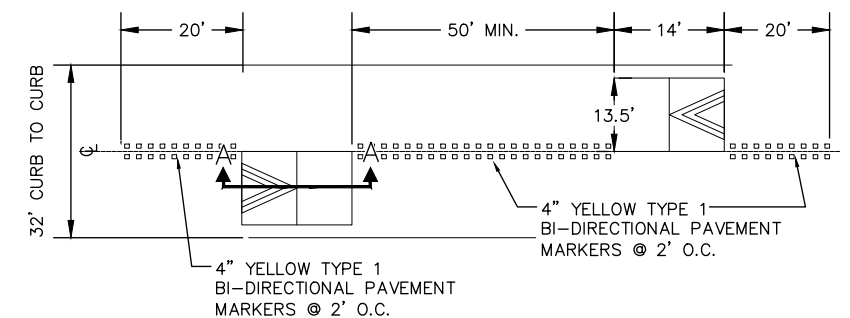
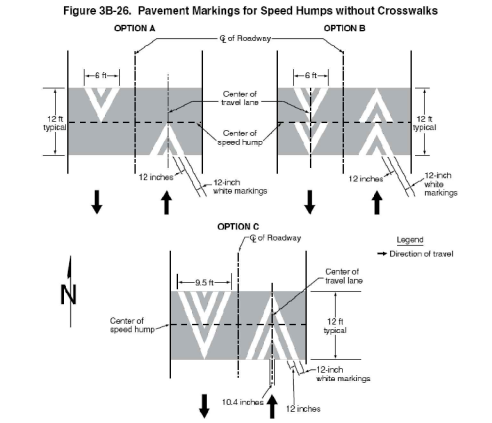


PROPOSED OFFSET SPEED HUMP LOCATION 4 5
C101

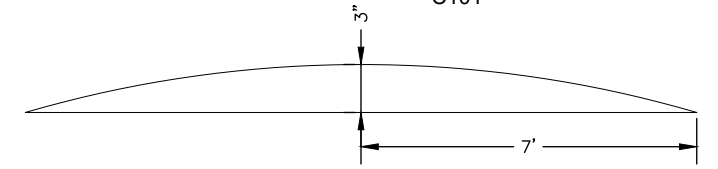


PLAN VIEW - NW 1ST AVE 1
C101

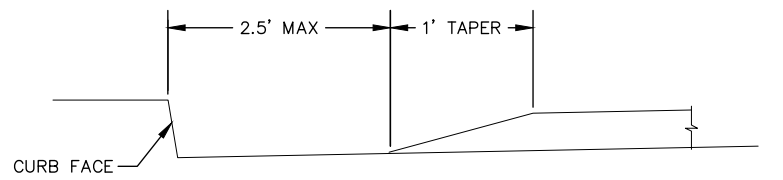
MUTCD 11th Edition Page 585



PLAN VIEW 6
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TYPICAL SECTION A
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CURB DETAIL 7
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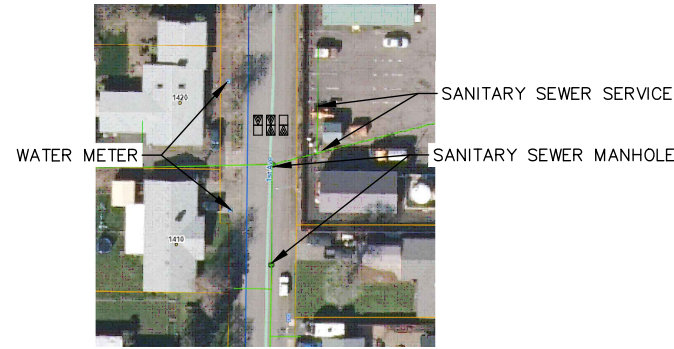
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LINE IS 1/8" INCH AT FULL SCALE
IF NOT 1/8" INCH - SCALE ACCORDINGLY

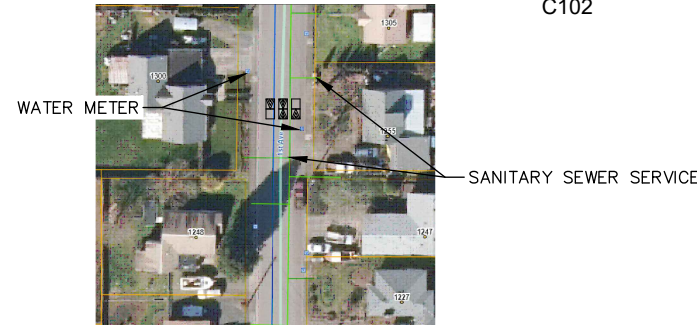
**NW 1ST AVE TRAFFIC CONTROL
CITY OF SWEET HOME**

**OPTION 2
PROPOSED OFFSET SPEED HUMP LAYOUT**

PROJECT NO. 215.01	DRAWING NO. C101
DATE MAR 2025	SHEET NO. 2 OF 3



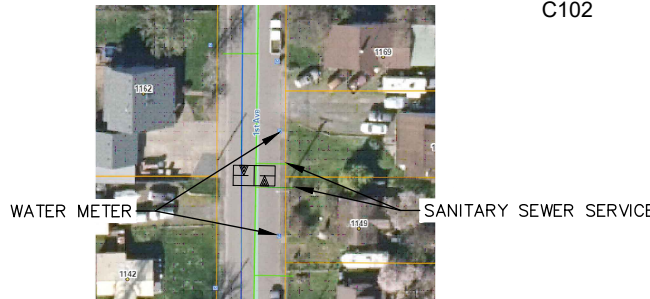
PROPOSED SPEED CUSHION LOCATION 1 (2) C102



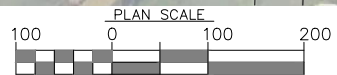
PROPOSED SPEED CUSHION LOCATION 2 (3) C102



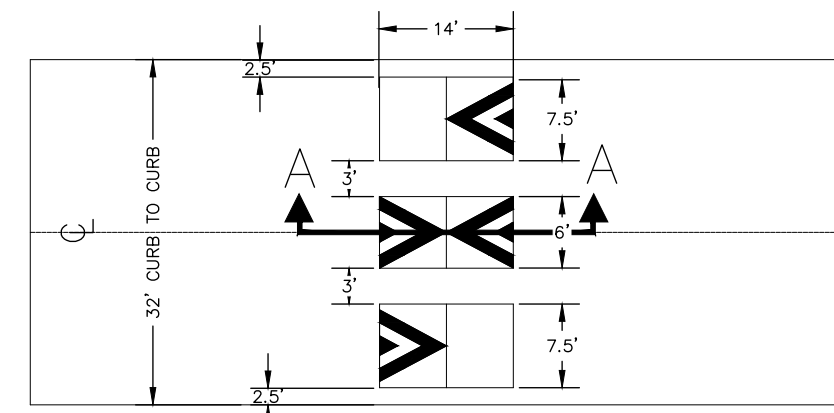
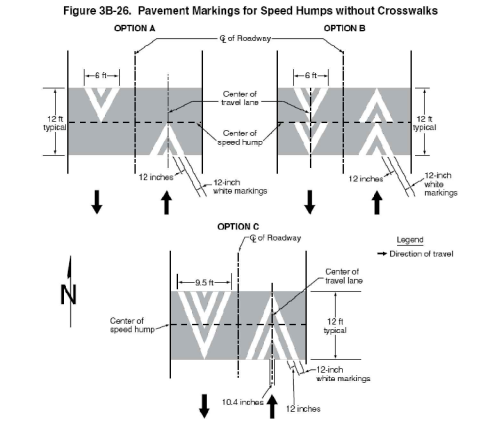
PROPOSED SPEED CUSHION LOCATION 3 (4) C102



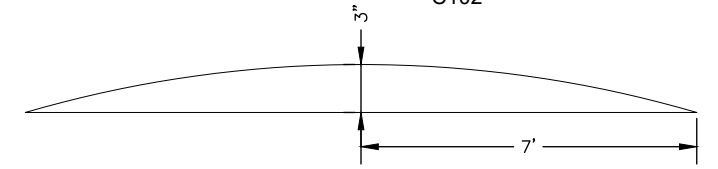
PROPOSED SPEED CUSHION LOCATION 4 (5) C102



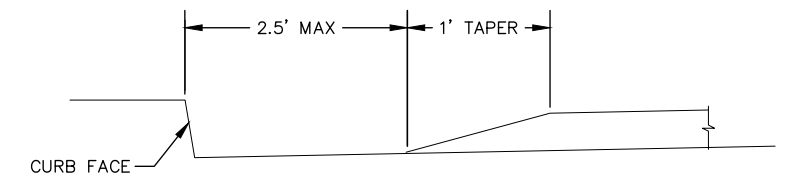
PLAN VIEW - NW 1ST AVE (1) C102



PLAN VIEW (6) C102 NOT TO SCALE



TYPICAL SECTION (A) C102 NOT TO SCALE



CURB DETAIL (7) C102 NOT TO SCALE



DESIGNED: PGR	DRAWN: SWF	REVISIONS				
APPROVED BY:	DATE:	REVISED	DESCRIPTION	SUBMIT.	APPR'D.	DATE

D THE DYER PARTNERSHIP ENGINEERS & PLANNERS, INC. 481 S. MAIN ST. LEBANON, OREGON 97355 TELEPHONE: (541) 405-4520 www.dyerpart.com

LINE IS 1/8 INCH AT FULL SCALE IF NOT 1/8 INCH - SCALE ACCORDINGLY

**NW 1ST AVE TRAFFIC CONTROL
CITY OF SWEET HOME**

**OPTION 3
PROPOSED SPEED CUSHION LAYOUT**

PROJECT NO. 215.01	DRAWING NO. C102
DATE MAR 2025	SHEET NO. 3 OF 3

Speed Hump

Description:

- Rounded (vertically along travel path) raised areas of pavement typically 12 to 14 feet in length
- Often placed in a series (typically spaced 260 to 500 feet apart)
- Sometimes called road humps or undulations

Applications:

- Appropriate for residential local streets and residential/neighborhood collectors
- Not typically used on major roads, bus routes, or primary emergency response routes
- Not appropriate for roads with 85th-percentile speeds of 45 mph or more
- Appropriate for mid-block placement, not at intersections
- Not recommended on grades greater than 8 percent
- Work well in combination with curb extensions
- Can be used on a one-lane one-way or two-lane two-way street



(Source: City of Boulder, Colorado)



(Source: PennDOT Local Technical Assistance Program)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

Design/Installation Issues:

- ITE recommended practice - "Guidelines for the Design and Application of Speed Humps"
- Typically 12 to 14 feet in length; other lengths (10, 22, and 30 feet) reported in practice in U.S.
- Speed hump shapes include parabolic, circular, and sinusoidal
- Typically spaced no more than 500 feet apart to achieve an 85th percentile speed between 25 and 35 mph
- Hump heights range between 3 and 4 inches, with trend toward 3 - 3 ½ inches maximum
- Often have associated signing (advance warning sign before first hump in series at each hump)
- Typically have pavement markings (zigzag, shark's tooth, chevron, zebra)
- Taper edge near curb to allow gap for drainage
- Some have speed advisories
- Need to design for drainage, without encouraging means for motorists to go around a hump

Potential Impacts:

- No impact on non-emergency access
- Average speeds between humps reduced between 20 and 25 percent
- Speeds typically increase approximately 0.5 to 1 mph midway between humps for each 100 feet Beyond the 200-foot approach and exit of consecutive humps
- Traffic volumes diversion estimated around 20 percent; average crash rates reduced by 13 percent

Emergency Response Issues:

- Impacts to ease of emergency-vehicle throughput
- Approximate delay between 3 and 5 seconds per hump for fire trucks and up to 10 seconds for ambulances with patients

Typical Cost (2017 dollars):

- Cost ranges between \$2,000 and \$4,000

Speed Cushion

Description:

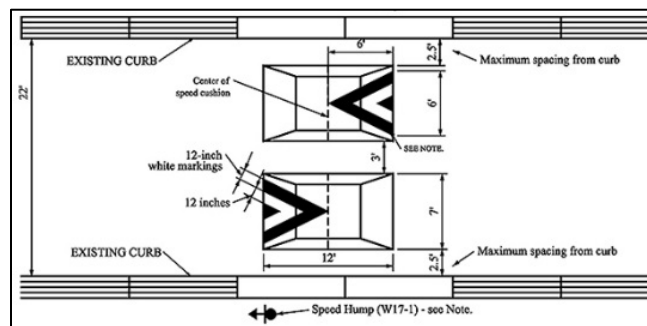
- Two or more raised areas placed laterally across a roadway with gaps between raised areas
- Height and length similar to a speed hump; spacing of gaps allow emergency vehicles to pass through at higher speeds
- Often placed in a series (typically spaced 260 to 500 feet apart)
- Sometimes called speed lump, speed slot, and speed pillow

Applications:

- Appropriate on local and collector streets
- Appropriate at mid-block locations only
- Not appropriate on grades greater than 8 percent



(Source: James Barrera, Horrocks, New Mexico)



(Source: Delaware Department of Transportation)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

Design/Installation Issues:

- Two or more cushions at each location
- Typically 12 to 14 feet in length and 7 feet in width
- Cushion heights range between 3 and 4 inches, with trend toward 3 - 3 ½ inches maximum
- Speed cushion shapes include parabolic, circular, and sinusoidal
- Material can be asphalt or rubber
- Often have associated signing (advance-warning sign before first cushion at each cushion)
- Typically have pavement markings (zigzag, shark's tooth, chevron, zebra)
- Some have speed advisories

Potential Impacts:

- Limited-to-no impact on non-emergency access
- Speeds determined by height and spacing; speed reductions between cushions have been observed averaging 20 and 25 percent
- Speeds typically increase by 0.5 mph midway between cushions for each 100 feet of separation
- Studies indicate that average traffic volumes have reduced by 20 percent depending on alternative routes available
- Average collision rates have been reduced by 13 percent on treated streets

Emergency Response Issues:

- Speed cushions have minimal impact on emergency response times, with less than a 1 second delay experienced by most emergency vehicles

Typical Cost (2017 dollars):

- Cost ranges between \$3,000 and \$4,000 for a set of rubber cushions

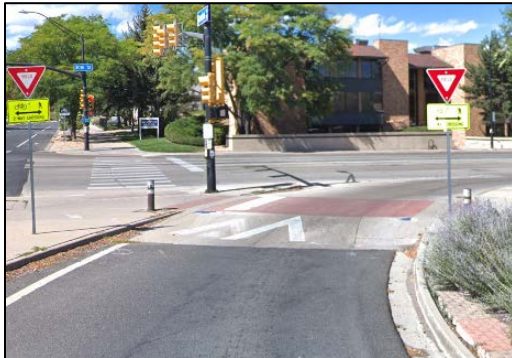
Speed Table/Raised Crosswalks

Description:

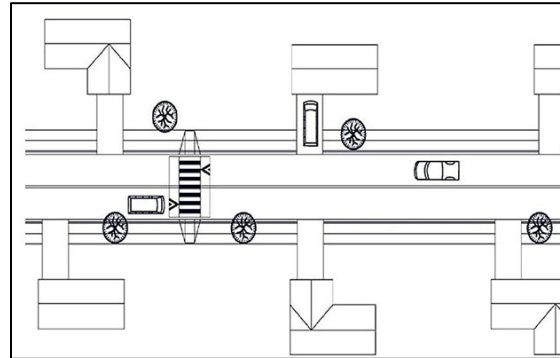
- Long, raised speed humps with a flat section in the middle and ramps on the ends; sometimes constructed with brick or other textured materials on the flat section
- If placed at a pedestrian crossing, it is referred to as a raised crosswalk
- If placed only in one direction on a road, it is called an offset speed table

Applications:

- Appropriate for local and collector streets; mid-block or at intersections, with/without crosswalks
- Can be used on a one-lane one-way or two-lane two-way street
- Not appropriate for roads with 85th percentile speeds of 45 mph or more
- Typically long enough for the entire wheelbase of a passenger car to rest on top or within limits of ramps
- Work well in combination with textured crosswalks, curb extensions, and curb radius reductions
- Can be applied both with and without sidewalks or dedicated bicycle facilities
- Typically installed along closed-section roads (i.e. curb and gutter) but feasible on open section



(Source: Google Maps, Boulder, Colorado)



(Source: Delaware Department of Transportation)

ITE/FHWA Traffic Calming EPrimer: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

Design/Installation Issues:

- ITE recommended practice – “Guidelines for the Design and Application of Speed Humps”
- Most common height is between 3 and 4 inches (reported as high as 6 inches)
- Ramps are typically 6 feet long (reported up to 10 feet long) and are either parabolic or linear
- Careful design is needed for drainage
- Posted speed typically 30 mph or less

Potential Impacts:

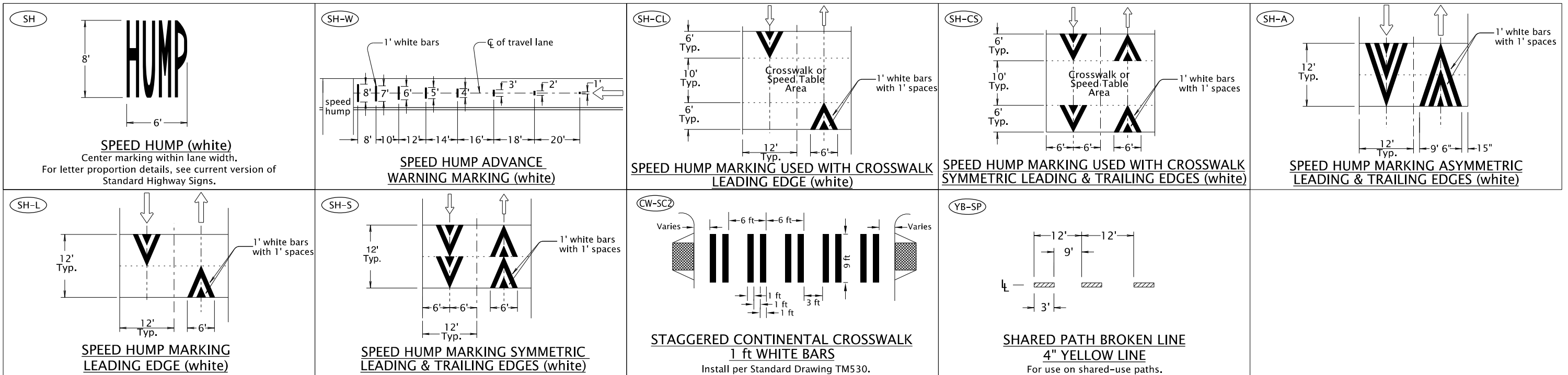
- No impact on non-emergency access
- Speeds reductions typically less than for speed humps (typical traversing speeds between 25 and 27 miles per hour)
- Speeds typically decline approximately 0.5 to 1 mph midway between tables for each 100 feet beyond the 200-foot approach and exit points of consecutive speed tables
- Average traffic volumes diversions of 20 percent when a series of speed tables are implemented
- Average crash rate reduction of 45 percent on treated streets
- Increase pedestrian visibility and likelihood of driver yield compliance
- Generally not appropriate for BRT bus routes

Emergency Response Issues:

- Typically preferred by fire departments over speed humps, but not appropriate for primary emergency vehicle routes; typically less than 3 seconds of delay per table for fire trucks

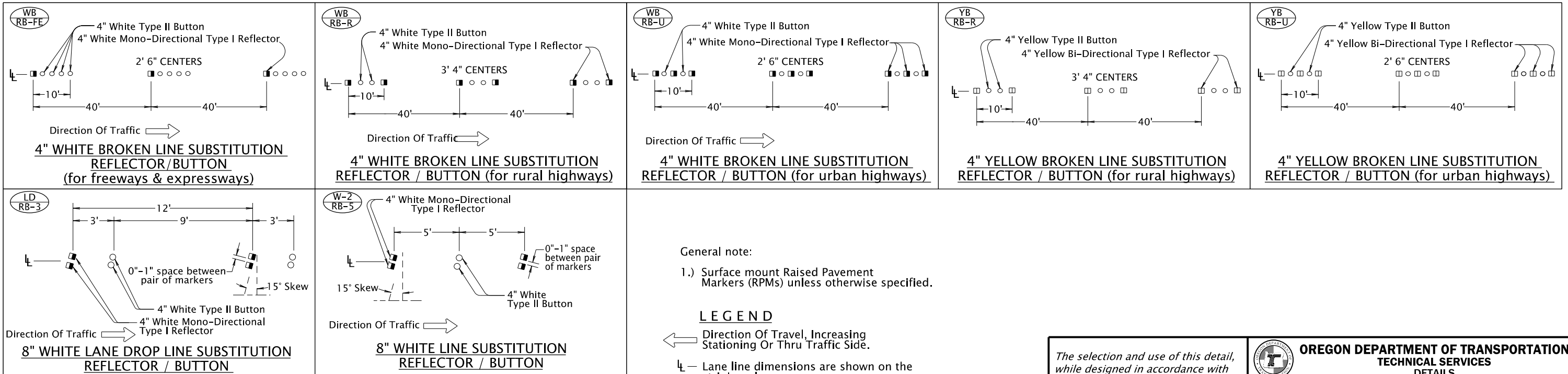
Typical Cost (2017 dollars):

- Cost ranges between \$2,500 and \$8,000 for asphalt tables; higher for brickwork, stamped asphalt, concrete ramps, and other enhancements sometimes used at pedestrian crossings



NOTE TO DESIGNERS:

- 1.) Raised Pavement Marker Substitution details should no longer be used on state highways. Consider durable profiled lines instead.
- 2.) Speed hump markings generally not used on state highway right-of-way.
- 3.) When continental style crosswalks are to be installed on a project (this may require Region Traffic Engineer approval depending on the situation. See Traffic Line Manual for further information), do not use CW-SC2 in Regions 1 thru 4. Only use CW-SC2 in Region 5 if the region striping manager approves, otherwise use the standard CW-SC shown in Standard Drawing TM503.
- 4.) Shared Lane Marking should not be used on roadways with a speed limit above 35 mph.



The selection and use of this detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.



TRAFFICLOGIX

Modular Rubber Traffic Calming Solutions

**SLOWER
SPEEDS
SAVE
LIVES**

BUY WITH NATIONAL COOPERATIVE CONTRACT PRICING
trafficlogix.com/purchase-options



www.trafficlogix.com



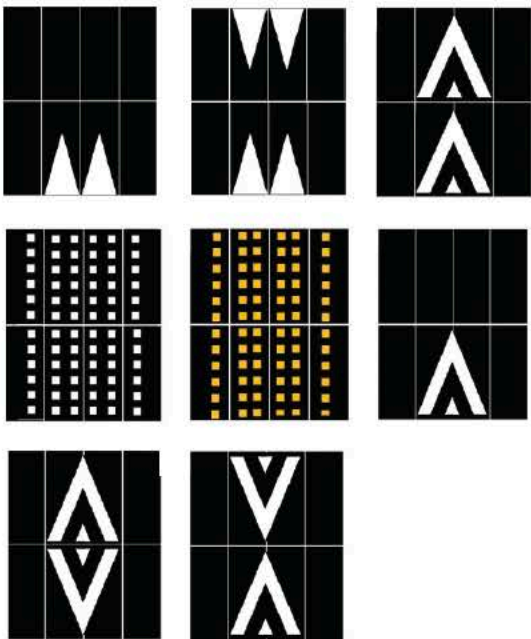
Customize Your Solution

Customize your traffic calming solutions to fit the specific dimensions and traffic concerns of your roads.

Highly reflective highway tape is embedded into the rubber during the manufacturing process. Available in a choice of yellow/white squares or white arrows, marking designs can be fully customized to your specifications.

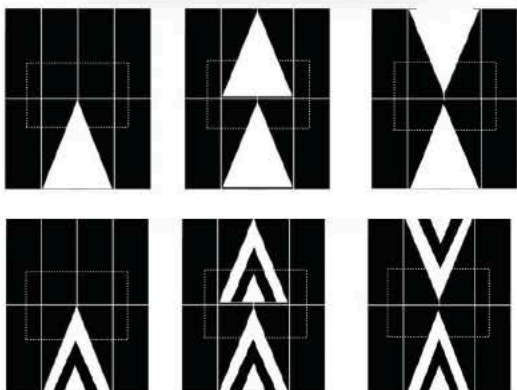
Standard Series:

Cushions, humps & tables



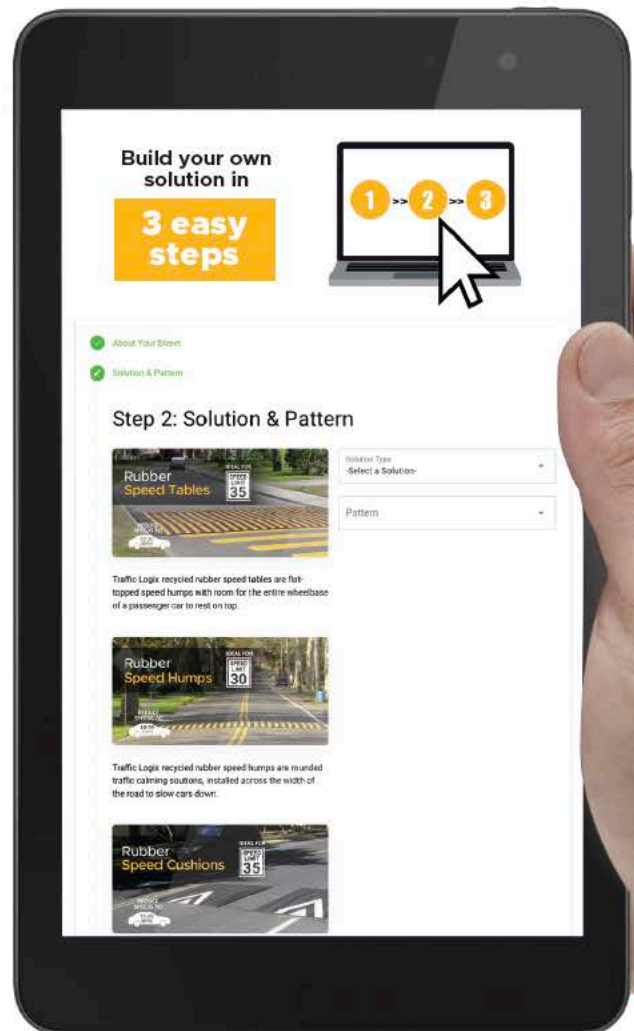
V3 Series:

Cushions



BUILD YOUR OWN SOLUTION ONLINE

[TRAFFICLOGIX.COM/BYOS](https://www.trafficlogix.com/byos)



Rubber Speed Cushions

IDEAL FOR



REDUCE SPEEDS TO



- Series of **small humps** with spaces between them
- Slow cars **without affecting emergency response time**
- Slows drivers while **allowing emergency vehicles to straddle** and pass
- Installed **across road width** in choice of lengths



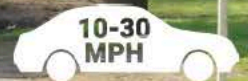
7' Cushion Profile

Rubber Speed Humps

IDEAL FOR



REDUCE SPEEDS TO



- Raised traffic calming devices with **sloped design**
- **Less abrupt than speed humps** due to longer length
- Recommended for roads with **low speed limits**
- Slow cars to a **range of speeds** based on chosen length



14' Hump Profile

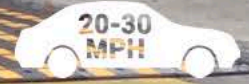
Rubber Speed Tables



IDEAL FOR



REDUCE SPEEDS TO



- Flat-topped speed humps for more **gradual speed reduction**
- Allows entire vehicle to rest on top for **less abrupt slowing**
- Encourages **continued traffic flow** at reduced speeds
- Ideal for **residential roads**

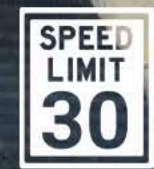


14' Table Profile

Rubber Raised Crosswalks



IDEAL FOR



REDUCE SPEEDS TO



- **Surface marked walkways** for safe pedestrian passage
- Provides **visual marked pathway** to assist in safe crossing
- Effective **speed deterrent** slows speeding vehicles
- **Dual safety advantage** for superior pedestrian protection



14' Raised Crosswalk Profile

Rubber SuperFlex Curbs



- Highly flexible rubber allows shaping to **any configuration**
- Used for traffic circles, roundabouts, chicanes, safety islands, and lane narrowing
- **Versatile solution** for multiple usages
- Available in brick red or black with **choice of tape color**

Rubber Cycle Lanes



- Creates **dedicated bike lanes** to protect cyclists
- **Sloped** delineators keep vehicle and bike traffic **in their respective lanes**
- **Visual separation** defines traffic spaces
- Guides **cyclists back into lane** while preventing vehicle traffic from entering bike lane



Why Traffic Logix?

Our recycled rubber traffic calming solutions offer a smarter, long-lasting alternative to asphalt devices.



Reduced Speeds

Rubber solutions are proven effective in reducing 85th percentile speed by close to 20% and childhood injury or death by close to 60%.



Recycled Rubber

Made of 100% post consumer tires, Traffic Logix recycles more than 450,000 tires from landfills every year.



Customizable

Traffic Logix rubber solutions are made of individual units so you can use them to meet your specs, speed limits, and safety challenges.



Rubber

VS

Asphalt

- Will not fade or crack
- Maintains consistent profile
- No heavy equipment needed to install
- Single lane closure
- Drivable immediately after installation
- Highly visible reflective markings
- Can be removed, stored and relocated
- Constructed of recycled rubber tires rescued from landfills

- Quality
- Durability
- Installation
- Disruption
- Usage
- Markings
- Versatility
- Impact

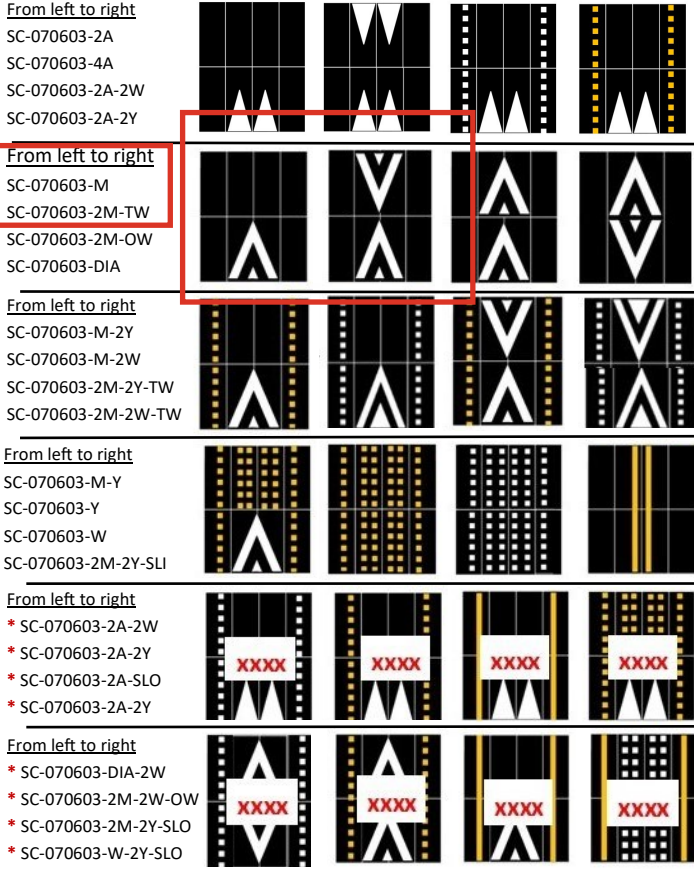
- Fades and cracks over time
- Compresses with repetitive impact, uneven profile
- Heavy equipment required for installation
- Complete street closure during installation
- Only drivable after 2-3 days of cure time
- Markings need repainting after a few years
- Must be destroyed for street repairs
- Petroleum based, depletes resources and pollutes water



A Division of Logix ITS

Cushion Examples Shown. Humps & Tables also available in similar patterns

Standard Series is available in various widths and lengths in creating (SC) Cushions, (SH) Humps and/or (ST) Tables



* XXXX Non-Stock Item

42" Approach and Exit Ramp

Cushions - 3' W, up to 9' W Lengths 7', 10.5', 14', 17.5', 21'
Height 3"

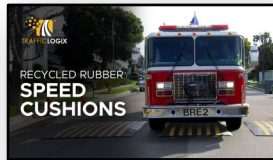
Humps - Various Widths Lengths 7', 10.5', 14', 21'
Heights 3", (4" -14' Length only)

Tables - Various Widths Lengths 14', 17.5', 21', 24.5'
Heights 3", (4" -14' Length only)
Flat Top any length Parabolic at 4" H (14' Length only)



♦ All modules have patented dual interlocking tongue and grooves.

- ♦ Creates a bond among modules.
- ♦ Increases installed cushion vehicle impact resistance.
- ♦ Enhances long-term stability and product performance.



7' L x 6' W x 3" H Standard Series Cushion Profile Shown

3"



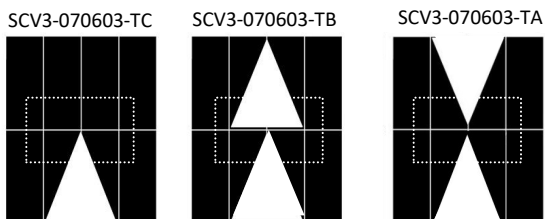
V3 SERIES Cushions - 7'L x 6' W x 3"H

V3 SERIES Humps 7'L x Various Widths Only

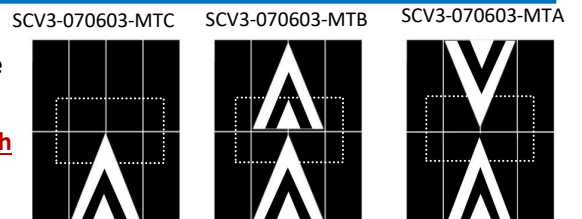


7' L x 6' W x 3" H V3 Series Cushion Profile Shown

3"



Steeper Approach Angle
Flat Top Design
Designed Speed 5 - 8 mph





Conditional Use Terms Rubber Traffic Calming Devices

1. Traffic Logix traffic calming devices (the “Traffic Calming Products”) are designed to be installed on local residential streets with posted speeds of 35 mph or less. Prior to installation, the Customer should determine if any federal, state, or local regulations govern the installation or use of Traffic Calming Products.
2. The installation location of any Traffic Calming Product should be reviewed by a Traffic Engineer.
3. Traffic Calming Products should only be used on roads with less than 5,000 vehicles per day.
4. Traffic Calming Products should be installed only on roads that are used primarily by passenger vehicles and/or emergency response vehicles with the roads themselves in respectable condition.
5. Traffic Calming Products should be installed in such a way that they are visible from at least 200 feet. For safe usage, Traffic Logix products must be installed in conjunction with appropriate signage in accordance with ITE’s State of the Practice on Traffic Calming, as well as ITE’s Manual on Uniformed Traffic Control Devices.
6. Traffic Calming Products should not be installed on roadways that have more than an 8% grade.
7. Traffic Calming Products should be installed with a minimum of three inches of asphalt or concrete underneath the device.
8. All bolts and anchors provided with product must be installed as instructed, and with Traffic Logix anchor adhesive that is also included with each product.
9. Quarterly inspection of each Traffic Calming Product is required. If the Traffic Calming Product has been damaged in any way, it should be replaced.
10. Traffic Logix Products should be removed prior to the first snowfall and should only be reinstalled in non-winter months.



OCTOBER 2023 COUNCIL REPORT-CALLS FOR SERVICE

CALLS FOR SERVICE	Feb-25	Feb-24	2025 TO DATE	2024 TO DATE	YEAR TO DATE CHANGE
PERSON CRIMES (Homicide, Assault, Harassment, Sex Crimes, Menacing, Reckless Endanger, Kidnap, Domestic Violence, Elder & Child Abuse, etc)	17	29	39	57	-31.58%
PROPERTY CRIMES (Arson, Burglary, Theft, Criminal Mischief, Motor Vehicle Theft, Robbery, Unlawful Entry into Motor Vehicle, Reckless Burning, etc)	23	35	66	81	-18.52%
SOCIETY CRIMES (Drive Under Influence of Intoxicants, Disorderly Conduct, Resisting Arrest, Criminal Trespass, Escape, Runaway, Drug Offenses, Weapon Offenses, etc)	25	14	46	55	-16.36%
OREGON SPECIFIC CRIMES (Protective Custodies, Traffic Crimes other than DUII, Warrant Arrests)	67	36	122	98	19.67%
TOTAL CRIMES REPORTED	132	114	273	291	-6.19%
TOTAL CRIMES CLEARED	101	76	110	189	-41.80%
NON CRIMINAL CALLS FOR SERVICE (Abandoned Vehicles, Agency Assists, 911 hangups, Alarm Calls, Ambulance Assist, Animal Calls, Death Investigations, Disturbances, Domestic Disputes, Juvenile, Motor Vehicle Crashes, Public Assists, Suspicious Activity, Traffic, Trespass Warnings, etc)	547	559	1190	1350	-11.85%
TOTAL CALLS FOR SERVICE	679	673	1463	1641	-10.85%
TOTAL INCIDENT NUMBERS ISSUED	634	618	1351	1442	-6.31%
TOTAL CAD NUMBERS ISSUED	1351	1334	2783	2740	1.55%

CUSTODIES	Feb-25	Feb-24	2025 TO DATE	2024 TO DATE	YEAR TO DATE CHANGE
TOTAL PERSONS TAKEN INTO CUSTODY	60	49	119	122	-2.46%
TOTAL ADULTS ARRESTED	58	36	117	101	13.68%
TOTAL JUVENILES IN CUSTODY	2	13	2	21	-90.48%
TOTAL CHARGES	116	81	231	215	6.93%
TOTAL ADULT CHARGES	113	62	228	186	18.42%
TOTAL JUVENILE CHARGES	3	19	3	29	-89.66%

October 2023 Council Report-Traffic

CITATIONS ISSUED	Feb-25	Feb-24	2025 TO DATE	2024 TO DATE	YEAR TO DATE CHANGE
Chapter 803 Vehicle Title and Registration (Fail to Register Vehicle, Fail to Renew Registration, Altered Plate, Switched Plates, Fail to Display Plate, etc.)	1	0	4	2	50.00%
Chapter 806 Financial Responsibility Law (Driving Uninsured, Fail to Carry Proof of Insurance, False Info Regarding Liability Insurance, etc.)	12	12	33	25	24.24%
Chapter 807 Driving Privileges, Licenses and Permits (No Operator License, Fail to Carry and Present License, Fail to Change Name and/or Address on Operator License, etc.)	4	2	6	5	20.00%
Chapter 811 Rules of the Road for Drivers (Speeding, DWS, Reckless Driving, Careless Driving, Hit and Run, Fail to Obey Traffic Control Device, Follow too Close, Illegal Parking, Fail to Yield to Pedestrian, Fail to Wear Seatbelt, etc.)	28	24	62	49	20.97%
Chapter 813 Driving Under Influence of Intoxicants (Drive Under Influence of Intoxicants, Refuse the Breath Test, etc.)	0	2	2	5	-60.00%
Chapter 814 Pedestrians; Passengers; Livestock; Motorized Wheelchairs; Motorcycles; Bicycles (Improper Use of Lanes, No Motorcycle Helmet, Bicyclist failing to Signal, etc)	0	0	0	0	0.00%
Chapter 815 Vehicle Equipment Generally (Improper Fenders or Mud Guards, Unreasonable Noise, Obstructed Vehicle Windows, etc.)	0	0	1	0	100.00%
Chapter 816 Vehicle Equipment (Operate Without Lighting Equipment, Operate Without Tail Lights, etc)	0	0	1	0	100.00%
Chapter 818 -821 (Vehicle limits, abandoned vehicle, special provisions, off road vehicles)	0	0	0	0	0.00%
TOTAL CITATIONS ISSUED	45	40	109	86	21.10%
TOTAL PERSONS CITED	22	27	56	45	19.64%
TOTAL WARNINGS ISSUED	103	18	256	88	65.63%
TOTAL OFFICER INITIATED TRAFFIC STOPS	127	137	312	221	29.17%

MOTOR VEHICLE CRASHES	Feb-25	Feb-24	2025 TO DATE	2024 TO DATE	YEAR TO DATE CHANGE
MVC-FATAL	0	0	0	0	0.00%
MVC-INJURY	2	2	7	5	28.57%
MVC-NON INJURY	5	6	10	13	-23.08%
HIT & RUN VEHICLE INJURY	1	0	2	0	100.00%
HIT & RUN PROPERTY	5	7	8	15	-46.67%
TOTAL CRASHES	13	15	27	33	-18.18%

CRASHES INVOLVING DUII ARREST	0	1	1	1	0.00%
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