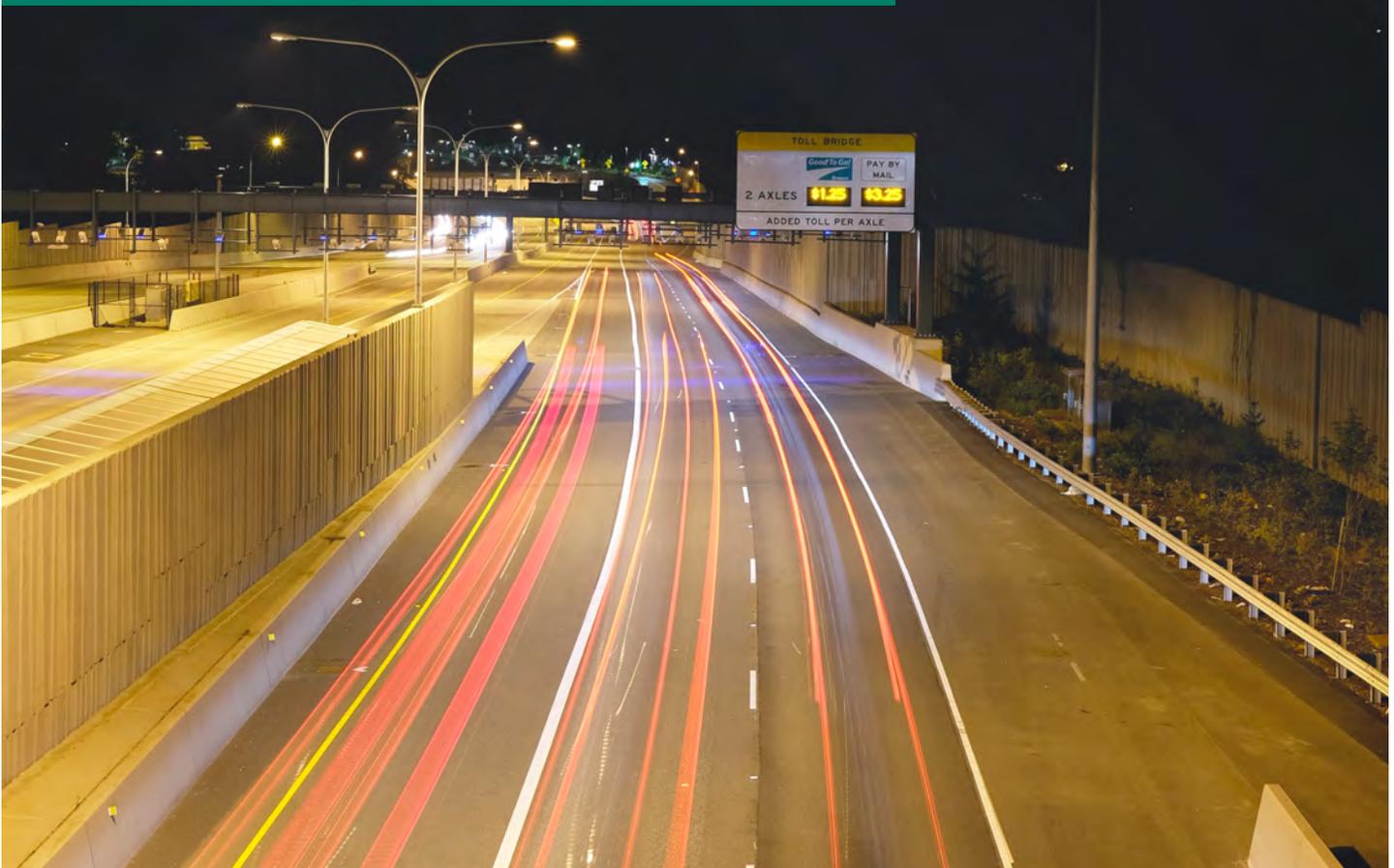




Washington State
Department of Transportation

Toll Signing Design Guidance Document

AUGUST 6TH 2018



TOLL BRIDGE
GoWashToGo PAY BY MAIL
2 AXLES \$1.25 \$3.25
ADDED TOLL PER AXLE

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1 FORWARD

The Toll Signing Design Guidance Document is intended to provide instruction and guidance for preparing contract plans, special provisions and estimate packages for highway construction projects.

This document will be updated based on changes to policy, operations, and current best practices. Updates require approval from the Toll Division director and headquarters traffic operations director.



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WSDOT Headquarters



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2 INTRODUCTION AND PURPOSE

The objective of this document is to provide guidance on signing for toll facilities and adjacent corridors. Signing requirements for toll roads depend on the type of facility and access, and are unique to each road. A study should be conducted to determine quantity, placement, and content of toll signs. This document shall be used in coordination with the Manual on Uniform Traffic Control Devices (MUTCD), and the WSDOT Sign Fabrication Manual. It has been developed from previous toll signing projects, and other toll facilities across the United States.

This document is authorized by the WSDOT Toll Division with concurrence from WSDOT Headquarters and Regional Traffic Offices. Coordination is required between the Toll Division, regional traffic offices, and project offices in the design and approval of toll signs.

3 TOLL ROAD SIGNS – GENERAL

The scope of this section applies to open-road tolling as well as price managed lane systems.

3.1 Toll Rate Signs

All toll facilities shall include toll rate signs to inform drivers of the current toll rate. The type, location, and placement of toll rate signs depends on the operations of a toll facility and how rates are applied. Some of the types of facilities include:

1. Fixed-price, single point, e.g. SR 16/Tacoma Narrows Bridge
2. Variable-price, single point, e.g. SR 520 and SR 99
3. Variable-price, multi-point, e.g. SR 167 HOT lanes or I-405 Express Toll Lanes (ETLs)

Toll rate signs are classified as regulatory signs and typically include other warning and information elements. Below are examples and guidelines to help aid in the design of toll rate signs.

3.1.1 Fixed-Priced, Single-Point, Toll Rate Sign

Fixed-price, single-point toll rates are constant for a particular vehicle classification for all times of day. Toll rate changes are infrequent, and static rate signs are preferred.

3.1.1.1 Sign Design

- Top portion of the sign shall be a guide portion with green background, state/route marker, and toll warning text.
- Toll warning text shall be black on yellow and shall reflect the roadway system on which the facility is located, e.g. TOLL TUNNEL, TOLL ROAD, TOLL BRIDGE, etc.
- Bottom portion of the sign is informational and shall include information about relevant payment methods, such as *Good To Go!*, Pay By Mail, and cash/manual lane pricing.

Informational text, such as ADDED TOLL PER AXLE, shall be included if vehicles with more than two axles pay a greater amount than what is shown on the sign.

3.1.1.2 Sign Placement

- Toll rate signs shall be located between the toll point and the first advance sign informing road users of the toll point.
- Toll rate signs shall be visible from all lanes of travel.

3.1.1.3 Example(s)

Figure 1 shows the Tacoma Narrows Bridge (TNB), a fixed-price single-point facility where rate changes occur only every year or two. A static sign has been placed over the roadway prior to the toll point. Unique to this facility is the cash/credit payment option shown on the toll rate sign.



Figure 1: TNB/SR16 Static Toll Rate Sign

3.1.2 Variable-Price, Single-Point, Toll Rate Sign

Variable-price, single-point toll systems have toll rates that change throughout the day according to a predefined schedule.

3.1.2.1 Sign Design

- The top portion of the sign may include a guide portion with the state/route marker on a green background. All toll rate signs shall include toll warning text which shall be black on yellow and shall reflect the roadway system on which the facility is located, e.g. TOLL TUNNEL, TOLL ROAD, TOLL BRIDGE, etc.
- The bottom portion of the sign is informational and shall include text or graphics about relevant payment methods, such as *Good To Go!* or Pay By Mail, current toll rates, and the text 2 AXLES to clarify pricing for 2 axle vehicles.
- Hybrid rate signs are preferred because of frequent rate changes and text limitations. The hybrid rate signs feature Variable Message Sign (VMS) panels, and static informational messages.

- The VMS panels shall display what a two-axle vehicle would pay using the *Good To Go!* or Pay By Mail methods. The VMS panels shall be large enough to display a minimum of six characters, to allow pricing from \$0.00 to \$99.99 to be displayed.
- Informational text such as ADDED TOLL PER AXLE, shall be included if vehicles with more than two axles pay a greater amount than what is shown on the sign.

3.1.2.2 Sign Placement

- Toll rate signs shall be located between the toll point and the first advance sign informing drivers of the toll point.
- Rate signs shall be installed as close to the toll point as practicable, to reduce the possibility of toll rate changes occurring between the time when a driver views a rate sign and when they pass the toll point.
- Toll rate signs shall be visible from all lanes of travel.

3.1.2.3 Example(s)

Figure 2 and Figure 3 show the SR 520 Toll Bridge, a variable-price, single-point toll system. Toll rates change several times per day according to a schedule, and hybrid rate signs are used to display current rates. The previous design shown in Figure 2 includes a guide portion. The current sign in Figure 3 does not include a guide portion.



Figure 2: SR 520 Variable-price, Single-point Toll Rate Sign. Previous Design.



Figure 3: SR 520 Variable-price, Single-point Toll Rate Sign. Current Design.

3.1.3 Variable-Price, Multi-Point, Toll Rate Sign

Variable-price, multi-point toll systems range from single to multi-destination pricing methods. They also differ from price managed lanes to open road tolling. WSDOT does not operate or have plans to install variable-price, multi-point, open road toll roads/bridges/tunnels, so this document's scope is limited to toll rate signs for price managed lanes.

3.1.3.1 Sign Design

- Toll rate signs for variable-price, multi-point price managed lanes shall be hybrid rate signs, since rates are expected to change frequently.
- Toll rate signs shall include the *Good To Go!* logo and text and messaging about restrictions/exemptions, and may include access information, travel destination(s), and other information about the facility.
- The signs shall have black text on a white background.
- When Pay By Mail toll rates cannot be displayed on the toll rate sign, Pay By Mail Add \$XX.XX signs shall be installed. See section 4.4 for details.

3.1.3.1.1 Single Destination

- Text describing destination is optional.

3.1.3.1.2 Multi-Destination

- Every destination shall include text and a VMS.
- Destination text shall be horizontally aligned with the VMS associated with a particular destination.
- An additional VMS or informational text may be installed to clarify access requirements, or provide travel information or restrictions.

3.1.3.2 Sign Placement

- Toll rate signs shall be placed before the start of a toll facility, at access points/locations for facilities with restricted access, and more frequently for open access systems. For open access systems, toll rate signs shall be placed where fare zones begin/end, with similar distance intervals to restricted access systems.
- Rate signs shall be installed at the beginning of access locations for restricted access facilities, or otherwise as close to the toll point as practicable. For special circumstances such as when a sign must be visible from the general purpose lanes *and* on-ramp, signs shall be placed so that they are visible from both the general purpose lanes and the on-ramp. Placement shall minimize installation of additional signs.
- In general, preference is given to placement of toll rate signs in close proximity to toll points. This is to reduce toll rate changes occurring between the time when a driver views a rate sign and when they pass a toll point.
- Toll rate signs shall be placed overhead, above the general purpose lanes nearest to the express toll lanes.

3.1.3.3 Example(s)

3.1.3.3.1 SR 167

An example of a variable-price, multi-point, single destination facility is the SR 167 High Occupancy Tolling (HOT) system. Signs do not show a destination because pricing is not based on trip length, see Figure 4.



Figure 4: SR 167 Variable-price, Multi-point, Single-destination Toll Rate Sign.

3.1.3.3.2 I-405

The I-405 express toll lanes are a variable-price, multi-point, and multi-destination facility, see sign detail Figure 5. Toll rate signs for I-405 have destination text and VMS panels to display information and prices for trip. An additional VMS panel provides drivers with information about carpool requirements, incidents, and other information.



Figure 5: I-405 Variable-price, Multi-point, Multi-destination Toll Rate Sign.

3.2 Photo Enforced Toll System Ahead

Pursuant to the [Revised Code of Washington 46.63.160](#), locations where a photo enforced toll system are used shall be marked. Signs shall indicate to drivers that they are entering a zone where traffic laws are photo enforced.

For systems with mandatory tolling, such as a bridge or toll road, advance warning signs are required. Price managed lane toll systems do not require advance photo toll enforcement signs.

3.2.1 Sign Design

- The sign text shall be black on a white background, and read PHOTO ENFORCED TOLL SYSTEM AHEAD.

3.2.2 Sign Placement

- Signs shall be installed prior to decision/ingress points, e.g. on-ramps, last exits before the toll facility, etc.
- These signs may be coupled with other toll informational signs.

3.2.3 Example(s)

For the SR 520 toll facility, Photo Enforced Toll System Ahead signs were installed for on-ramps and at mainline decision points, see Figure 6 and Figure 7.



Figure 6: SR 520 Photo Enforced Toll System Ahead.



Figure 7: SR 520 Photo Enforced Toll System Ahead.

3.3 Photo Toll System In Use

Pursuant to the [Revised Code of Washington 46.63.160](#), locations where a photo enforced toll system is used shall be marked. Signs shall indicate to drivers that they are entering a zone where traffic laws are photo enforced. All toll systems where photos are taken shall include this sign in the vicinity of the toll point.

3.3.1 Sign Design

- The sign text shall be black on a white background and read PHOTO TOLL SYSTEM IN USE.

3.3.2 Sign Placement

- Photo Toll System In Use signs shall be installed at every location where an image capture system is used for tolling purposes. For multi-point toll systems, PHOTO TOLL SYSTEM IN USE signs shall be installed at every toll gantry.

3.3.3 Example(s)

The I-405 and TNB facilities utilize photo tolling systems and have PHOTO TOLL SYSTEM IN USE signs installed on the toll gantries, see Figure 8 and Figure 9.



Figure 8: I-405 Photo Toll System In Use.



Figure 9: TNB Photo Toll System In Use.

3.4 Payment Method

Payment method signs shall be installed prior to each toll facility to inform drivers about accepted forms of payment. Installation locations include on-ramps, last exit(s) before toll, etc. Payment method signs for price managed lane systems or ETLs are different, refer to section 4.6.

3.4.1 Sign Design

- Payment method signs consist of multiple elements. The top of the sign is the guide portion, with a green background and the state/route marker. The guide portion also includes the toll warning text that is black on yellow and reflects the roadway system on which the facility is located, e.g. TOLL TUNNEL, TOLL ROAD, TOLL BRIDGE, etc.
- The bottom portion of the sign is informational and includes relevant payment methods, such as *Good To Go!*, Pay By Mail, and if applicable cash/manual lane pricing.

3.4.2 Sign Placement

- Signs shall be installed prior to decision/ingress points, e.g. on-ramps, last exits before the toll facility, etc.

3.4.3 Example(s)

Payment sign examples from the SR 99 tunnel and SR 520 bridge are shown in Figure 10 and Figure 11, respectively.

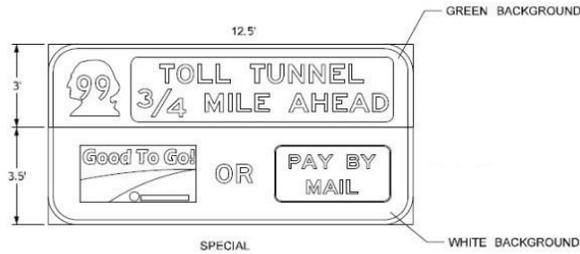


Figure 10: SR 99 Payment Sign Detail. Dimensions Provided for Informational Purposes Only.



Figure 11: SR 520 Payment Sign and Last Exit Before Toll Sign.

3.5 Last Exit Before Toll

Facilities that require drivers to pay a toll shall include signs that warn drivers about the last opportunity to exit the corridor before paying the toll.

3.5.1 Sign Design

- The sign text shall read LAST EXIT BEFORE TOLL as black on a yellow background.

3.5.2 Sign Placement

- The warning sign shall be installed on, or in conjunction with, guide signs at the last exit before the toll.
- In general, text is placed as a banner on the top of a guide sign.

3.5.3 Example(s)

Example sign details from the SR 520 Toll Bridge are shown in Figure 12 and Figure 13.



Figure 12: SR 520 Last Exit Before Toll Sign, Montlake Blvd.



Figure 13: SR 520 Last Exit Before Toll Sign, 92nd Ave NE .

3.6 Vehicle Entering Ramp Will Pay Toll

On-ramps that lead directly to a toll facility without the ability to exit before being charged a toll shall include warning signs. The signs shall inform drivers that if they use the ramp, they are required to pay a toll.

3.6.1 Sign Design

- Sign text shall be black on a yellow background and read: VEHICLES ENTERING RAMP WILL PAY TOLL.
- The *Good To Go!* and Pay By Mail logos shall be included to clarify payment methods.

3.6.2 Sign Placement

- Signs shall be located on arterial routes prior to on-ramps, and provide drivers the opportunity to make a decision before taking the ramp.

3.6.3 Example(s)

The signs installed at Montlake Blvd and Lake Washington Blvd for SR 520 are shown in Figure 14 and Figure 15.



Figure 14: SR 520 Vehicles Entering Ramp Will Pay Toll, Montlake Blvd.



Figure 15: SR 520 Vehicles Entering Ramp Will Pay Toll, Lake Washington Blvd.

3.7 Toll Notice on Guide Signs

Advance warning signs shall be installed for all toll roads, toll bridges, and toll tunnels. Guide signs with a destination located within a toll facility shall be modified to include toll information. These signs include, but are not limited to:

- Advance warning guide signs (e.g. 1 mile, ½ mile, etc.)
- Guide signs at on/off-ramps
- Guide signs in gore areas
- Arterial guide signs

3.7.1 Sign Design

- Toll notice signs shall modify existing existing/new guide signs.
- Text shall be black on a yellow background and placed on a guide sign.
- Warning text shall reflect the roadway system on which the facility is located, e.g. TOLL TUNNEL, TOLL ROAD, TOLL BRIDGE, etc.

3.7.2 Sign Placement

- When deciding on where to place guide signs, the general design guidance is that a driver should view at least two guide signs before reaching a decision point, where they no longer have the opportunity to avoid the toll facility.
- Placement may consist of multiple notices on arterial guide signs, signs on an adjacent corridor, and signs on a toll facility before the toll.
- A signing study shall be performed to determine optimal placement and quantity.

3.7.3 Example(s)

Example guide signs for the SR 520 are shown in Figure 16, Figure 17, and Figure 18.



Figure 16: I-405 Guide Sign for SR 520 Toll Bridge.



Figure 17: I-5 Guide Sign for SR 520 Toll Bridge.



Figure 18: Arterial Street Guide Sign for SR 520 Toll Bridge.

3.8 Toll Warning, X Miles Ahead

On fixed-price, single-point and variable-price, single-point toll facilities, signs shall be placed to provide drivers with information about the distance to the toll point.

3.8.1 Sign Design

- Toll Warning, X Miles Ahead signs shall consist of guide and payment information elements.
- Guide elements shall have a green background with the state/route marker. Text shall be black on a yellow background and shall reflect the roadway system on which the facility is located, e.g. TOLL TUNNEL, TOLL ROAD, TOLL BRIDGE, etc. and the distance to the toll point.
- Payment elements shall consist of relevant payment options such as *Good To Go!*, Pay By Mail, or cash/manual lanes if installed on a facility.

3.8.2 Sign Placement

- Signs shall be placed on the mainline routes two or more miles in advance of the toll point, giving drivers information on whether their destination is before or after the toll point.

3.8.3 Example(s)

The TOLL BRIDGE 3 MILES AHEAD signs for SR 520 are shown in Figure 19 and Figure 20.

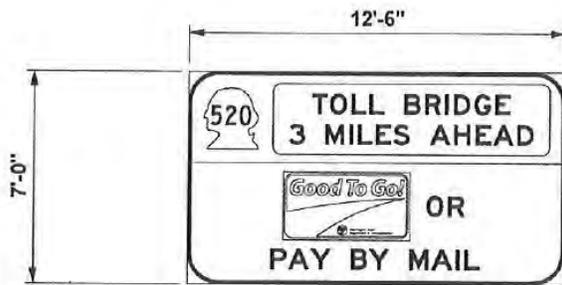


Figure 19: SR 520 Toll Warning 3 Miles Ahead Sign Detail. Dimensions Provided for Informational Purposes Only.



Figure 20: SR 520 Toll Warning 3 Miles Ahead Sign.

3.9 Good To Go! Informational Signs

For all toll systems to be successful in attracting and informing users, *Good To Go!* informational signing is needed to inform drivers where to get basic information about each toll facility. It is essential to identify the *Good To Go!* tolling program, and provide the URL so that drivers can get information about the toll corridor, or set up a *Good To Go!* account. *Good To Go!* informational signs shall be installed on each tolled corridor and can be placed in a variety of ways.

3.9.1 Sign Design

- *Good To Go!* informational signs shall use the official *Good To Go!* logo, and shall include the text GoodToGo.com below the logo.
- *Good To Go!* informational signs shall have white text on a green background.

3.9.2 Sign Placement

- At a minimum, signs shall be placed on the left shoulder prior to every access location, and after each on-ramp. Placement and quantity of *Good To Go!* informational signs may be adjusted with approval from WSDOT.

3.9.3 Example(s)

Larger signs are preferred for mainline installation, and smaller signs for shoulders and for locations closer to toll points. Sign details are shown in Figure 21 and Figure 22.



Figure 21: Large *Good To Go!* Sign Detail.
Dimensions Provided for Informational Purposes
Only.



Figure 22: TNB *Good To Go!* Sign.

3.10 *Good To Go!* Logo

The *Good To Go!* logo with WSDOT abbreviation shall be used for all marketing, signing, digital, and most print materials. Figure 23 and Figure 24 show examples of full text and the abbreviated version of the logo.

3.10.1 Design

- Only the official logo without modification shall be used.

3.10.2 Placement

- The *Good To Go!* logo may be placed on marketing, signing, digital, and print materials.

3.10.3 Example(s)

Figure 23 shows the *Good To Go!* logo with text, Washington State Department of Transportation, and with rounded corners. Figure 24 shows the *Good To Go!* logo with abbreviated text, WSDOT, and without rounded corners.



Figure 23: *Good To Go!* Logo Full Text.



Figure 24: *Good To Go!* Logo Abbreviated Text (hard corners).

4 PRICE MANAGED LANE SIGNS – EXPRESS TOLL LANES

The 2009 MUTCD Section 2G.16-18 provides the basis for toll sign design, but it does not provide specific guidance in all situations. The unique business rules and operational constraints in Washington State require additional guidance to supplement the MUTCD, specifically concerning sign design for price managed or toll lanes also known as Express Toll Lanes (ETLs).

4.1 ETL Access Signs

ETL configuration includes restricted access locations which allow drivers to enter and exit the toll facility. Similar to advance warning signs for exits, these access points also need advance signing. Figures 2G-21, 22 and 23 in the 2009 MUTCD show different layouts for providing advance notice of an access point. Specific signing differences from the 2009 MUTCD that WSDOT has adopted regarding access signing are provided as follows.

4.1.1 Sign Design

- Signs shall have black text on a white background.
- “EXPRESS TOLL LANES” shall be shown as the top banner on all access signs.
- The *Good To Go!* logo and the Pay By Mail logo shall be shown in the middle of the sign with the words “ADDED TOLL” placed directly below the Pay By Mail logo.
- The word “ENTRANCE” shall be used on signs for notification of the beginning of the express toll lanes.
- The word “ACCESS” shall be used on signs for notification of an ingress into the express toll lanes after the express toll lanes have begun.
- When ingress is a left movement, a “LEFT” black on yellow plaque shall be added to the upper left portion of price managed lane access signs.

4.1.2 Sign Placement

- At a minimum there shall be at least a 1 mile and ½ mile advance entrance signs, as well as a point of entry (arrow) sign, prior to the beginning of the express toll lanes.
- At a minimum there shall be one ½ or ¼ mile advance warning access sign prior to an ingress point within the express toll lanes.

- Signs shall be placed overhead, above the general purpose lanes nearest to the express toll lanes.

4.1.3 Example(s)

Figure 25 shows a sign for a ¼ mile access placed on the I-405 Express Toll Lanes corridor.



Figure 25: I-405 ETL Access Sign ¼ Mile.

4.2 ETL Local Exit Signs

ETLs include restricted access points throughout the facility which enables drivers to enter and exit the express toll lanes legally. To avoid driver confusion and illegal egress of the ETLs, local exit signs shall be installed to notify drivers of egress locations to exit the ETL, and to assist drivers with reaching their mainline exit off-ramp. Figure 2G-25 in the 2009 MUTCD illustrates FHWA's guidelines for providing notice of an egress point that guides drivers to their desired mainline exit.

Specific signing differences from the 2009 MUTCD that WSDOT has adopted regarding local exit signing are as follows.

4.2.1 Sign Design

- "LOCAL EXITS" shall be shown in black text on a white background as the top banner on all local exit signs.
- All mainline exits that cannot be legally maneuvered to after passing the upcoming egress point shall be included on the local exit signs for that egress point. This information shall be located on the lower portion of the sign as white text on a green background.
- The bottom of the sign shall include either distance to the egress point or access arrow, depending on proximity to an access point. The text shall be white on a green background.

4.2.2 Sign Placement

- At a minimum a ¼ or ½ mile advance warning sign shall be installed prior to an egress point, and another sign at the access point. A ½ mile advance warning sign is preferred.

- All signs shall be placed overhead, above the express toll lane(s) nearest to the general purpose lanes.

4.2.3 Example(s)

Figure 26 and Figure 27 show example local exit signs for the I-405 Express Toll Lanes corridor.



Figure 26: I-405 Local Exit Warning Sign, NE 70th PI. and NE 85th St.



Figure 27: I-405 Local Exit 1/4 Mile Advance Warning Sign, NE 70th PI. and NE 85th St.

4.3 ETL Express Exit Signs

Express toll lane corridors may include direct access exits from ETLs to an arterial. These are typically left exits and are known as express or direct-access exits. These exits are signed similarly to an HOV direct access exit, with a few modifications. Figure 2G-26 and 27 in the 2009 MUTCD illustrates FHWA's guidelines for signing an express exit from an express toll lane.

Specific signing differences from the 2009 MUTCD that WSDOT has adopted regarding express exit signing are as follows.

4.3.1 Sign Design

- Express exit signs shall have black text on a white background.
- "EXPRESS EXIT" shall be shown as the top banner on all express exit signs.
- The exit route or street name shall be shown under the top banner with access distance or information below.
- When egress is a left movement, a "LEFT" black on yellow plaque shall be added to the upper left portion of price managed lane exit signs.

4.3.2 Sign Placement

- At a minimum there shall be at least a 1/2 mile advance warning sign, as well as an egress sign prior to the price managed lane exit. A 1 mile advance warning sign is preferred.
- All signs shall be placed overhead, above the express toll lane(s).

4.3.3 Example(s)

Figure 28 and Figure 29 show the details for the local exit signs on the I-405 ETLs.



Figure 28: I-405 Express Exit Advance Warning Sign, NE 128th St.



Figure 29: I-405 Express Exit Sign, NE 128th St. 1 Mile.

4.4 Pay By Mail Add \$XX.XX

Pay By Mail Add \$XX.XX signs shall be installed where toll rate signs cannot display both the *Good To Go!* and Pay by Mail toll rates.

4.4.1 Sign Design

- The text shall be black on a white background. PAY BY MAIL text shall be boxed, and the style and size shall be consistent with the Pay By Mail logo used at other locations, and consistent with the logo used on other WSDOT toll facilities.
- The text shall read PAY BY MAIL ADD \$XX.XX, where \$XX.XX is the current charge for Pay By Mail.

4.4.2 Sign Placement

- Pay By Mail Add \$XX.XX signs shall be installed adjacent to or on the same structure as toll rate signs. Preference is for signs to be installed on the same structure as toll rate signs.

4.4.3 Example(s)

Pay By Mail Add \$XX.XX signs have been installed at every toll rate sign gantry on I-405, because the toll rate signs do not show the toll rate for Pay By Mail. Figure 30 shows a Pay By Mail Add \$XX.XX sign mounted to a mainline gantry.



Figure 30: I-405 Pay By Mail Add \$2.00.

4.5 Illegal to Cross Double White Line

ETL and HOT lane facilities can include buffer striping that prohibits the movement of vehicles from the general purpose (GP) lanes to the toll lanes, and vice versa. Current practice is to use a continuous double white line or two continuous double white lines. For facilities meeting these conditions, regulatory signs shall be installed throughout the corridor to reinforce and alert drivers that crossing the buffer striping is illegal. This signing is consistent with the MUTCD.

4.5.1 Sign Design

- "ILLEGAL TO CROSS DOUBLE WHITE LINE" text shall be shown on the sign.
- The text is black on a white background with black border.

4.5.2 Sign Placement

- Illegal to Cross Double White Line signs shall be placed at a frequency of roughly three signs per mile.
- Signs shall be placed at access points and on-ramps.
- Placement locations include the median and outside shoulder, to inform both drivers of toll lanes and GP lanes about the intent of the double white line.

4.5.3 Example(s)

Examples signs are shown in Figure 31, and Figure 32.

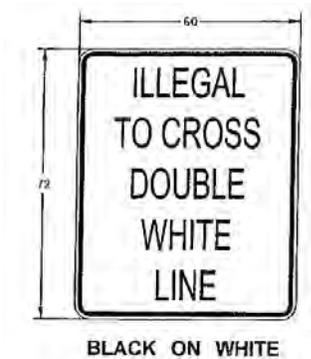


Figure 31: Illegal to Cross Double White Line Sign Detail. Dimensions Provided for Informational Purposes Only.

Figure 32: I-405 Illegal to Cross Double White Line Sign.

4.6 ETL Payment Sign

ETL Payment method signs shall inform drivers that they are using price managed lanes, and about the accepted forms of payment.

4.6.1 Sign Design

- ETL payment method signs consist of multiple elements. The top of the sign informs drivers that they are using a price managed lane system, and shall include the text “EXPRESS TOLL LANES.”
- The center portion of the sign shall include relevant payment methods, such as *Good To Go!*, Pay By Mail, and the text “ADDED TOLL” for the Pay By Mail option.
- The bottom of the sign shall include an arrow symbol centered over price managed travel lane(s). The sign background shall be white with black text.

4.6.2 Sign Placement

- ETL payment signs shall be placed between access locations, with preference given to placement equidistant from access start and end locations.

4.6.3 Example(s)

ETL payment sign examples from I-405 are shown in Figure 33 and Figure 34.



Figure 33: I-405 ETL Payment Sign for Two Price Managed Lanes.



Figure 34: I-405 ETL Payment Sign for Single Price Managed Lane.

4.7 Decision Point Signing

Decision points occur when one toll facility connects to another toll facility on a contiguous roadway, for example the Renton to Bellevue and Bellevue to Lynwood Express Toll Lane facilities. Signing for these types of facilities is complex and new for US toll systems. Design and placement are provided as suggestions only. All finalized plans shall be reviewed and approved by WSDOT.

4.7.1 Sign Design

4.7.1.1 Access Signs

- Signs shall have black text on a white background for “EXPRESS TOLL LANES” text.
- The bottom portion of the signs shall display white text on a black background for access text, e.g. “NEW TOLL AHEAD 1 MILE”

4.7.1.2 Local Exit

- “LOCAL EXIT(S)” shall be shown in black text on a white background as the top banner on all local exit signs.
- Below “LOCAL EXIT(S),” text guide informational shall be shown as white text on a green background. A mile distance or arrow marker shall be included, depending on proximity to an access point.
- The bottom of the sign shall include the text “NEW TOLL AHEAD,” as white text on a black background.

4.7.1.3 Toll Rate Signs

- Toll rate signs for the new toll shall be modified or designed to include a plaque in the upper left hand corner. The text for the plaque shall read, “NEW TOLL,” and be black text on a yellow background.

4.7.2 Sign Placement

4.7.2.1 Access Signs

- See 4.1.2 for access sign placement.

4.7.2.2 Local Exit

- See 4.2.2 for local exit sign placement.

4.7.2.3 Toll Rate Signs

- See 3.1.3.2 for toll rate sign placement.

4.7.3 Example(s)

Figure 35 provides a decision point signing example. This example is provided for informational purposes only. All decision point signing plans shall be reviewed and approved by WSDOT.

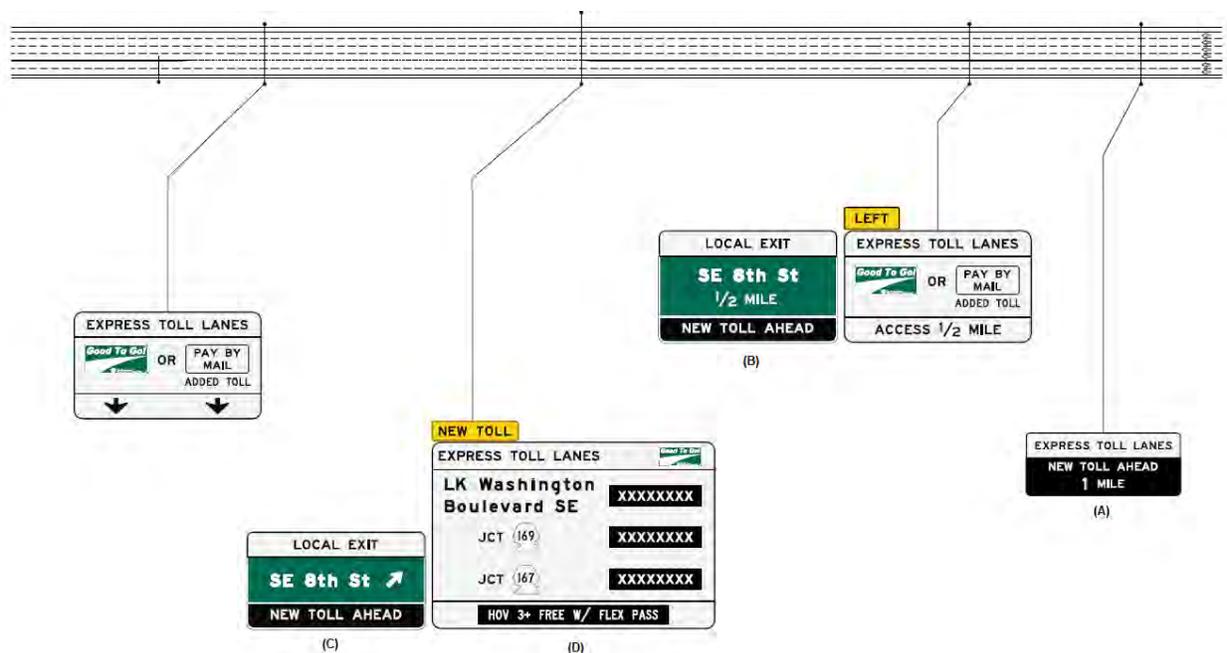


Figure 35: Decision Point Signing Example. (A) Access Sign. (B) and (C) Local Exit Sign. (D) Toll Rate Sign.

4.8 Gross Vehicle Weight (GVW) Restriction Signs

For price managed lanes, GVW restrictions may be required to prevent large vehicles from utilizing toll lanes.

4.8.1 Sign Design

- The sign shall consist of three elements (1) “TOLL LANES” text to state that the regulation applies to price managed lanes (2) “TRUCKS OVER 10,000 LBS PROHIBITED EXCEPT BUSES” text or equivalent text to clarify GVW requirements (3) and “AT ALL TIMES” text or equivalent text to clarify time restrictions.

- The text is black on a white background with a black border.

4.8.2 Sign Placement

- Signs shall be placed at a frequency of roughly one sign every two miles.

4.8.3 Example(s)

On the I-405 price managed lane facility, GVW restriction signs were installed as are shown in Figure 36.



Figure 36: I-405 GVW Restriction Sign.

4.9 HOV/ETL Direct Access Ramps

Direct access ramps allow buses, carpools, vanpools, and motorcycles to directly access the high occupancy vehicle (HOV) lanes in the center of the freeway. When integrated with a price managed lane system or ETL, special signing is required to inform drivers about access restrictions and other policies governing usage.

4.9.1 Sign Design

- All sign text shall be black on white.
- The top portion of the sign shall include a white HOV diamond on black background, and the text “LEFT EXIT.”
- The middle of the sign shall include information about permitted vehicles, such as busses and carpools with two or more passengers represented by a bus and passenger vehicles image with “2+” text. Additionally, the text “ONLY” shall be included to clarify that usage is restricted to these types of vehicles.
- The bottom portion of the sign shall include time of day restrictions, such as “MON – FRI | 7PM – 5AM | SAT – SUN”.

4.9.2 Sign Placement

- Signs shall be placed as close to HOV/ETL direct access ramps as practicable.

4.9.3 Example(s)

HOV/ETL direct access ramp restriction signs were installed on I-405 at NE 128th St, see Figure 37.



Figure 37: I-405 NE 128th St HOV/ETL Direct Access Ramp Sign – Access Restrictions.

4.10 Other Considerations

Business rules and policy may change as more express toll lane systems are implemented, or as other operational considerations are made. These decisions directly affect the signing needs for the corridor. Specific examples include considerations for open-continuous access express toll lanes, payment methods, express toll lanes within a single open road toll point, carpool policy decisions, the use of Active Traffic Management signs within a price managed lane facility, interoperability with other toll agencies, and the need to transition from one toll facility to another toll facility.

5 ADDITIONAL TOLL SIGNING

5.1 Travel Time Signs

Hybrid travel time signs that reference a toll facility shall include a toll warning. This provides drivers with toll information in addition to the projected travel times.

5.1.1 Sign Design

- Travel time signs shall include toll warning text within the static portion of the travel time sign.
- The warning text shall reflect the roadway system on which the facility is located, e.g. TOLL TUNNEL, TOLL ROAD, TOLL BRIDGE, etc. The text shall be black on a yellow background.

5.1.2 Sign Placement

- Toll facility notices shall be placed on existing/new hybrid rate signs.

5.1.3 Example(s)

Sign details from the SR 520 Toll Signing Project are shown in Figure 38 and Figure 39.

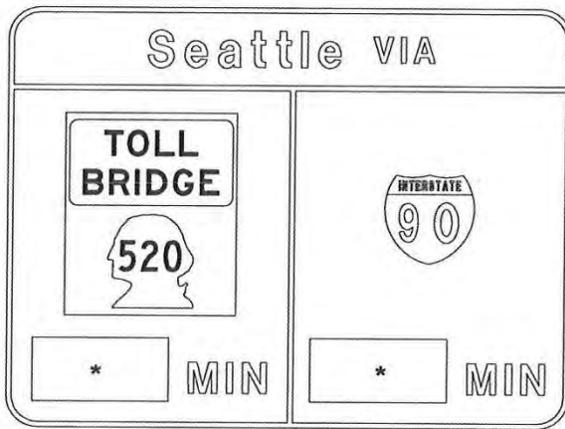


Figure 38: I-405 Travel Time Sign Detail, Multi-Route.



Figure 39: I-405 Travel Time Sign Detail, Single Route.

Existing hybrid travel time signs can be supplemented with plaques if there is enough space on the sign. Examples of existing supplemented travel time signs for the SR 520 are shown in Figure 40 and Figure 41.



Figure 40: I-405 Travel Time Sign, Multi-Route.



Figure 41: I-405 Travel Time Sign, Multi-Route.

5.2 Sign Covering/Uncovering

The work sequence for covering and uncovering signs will vary for each project and is dependent on several factors including the civil contractor, toll system vendor, and stakeholder schedules. A detailed analysis and work plan shall be performed and submitted to WSDOT detailing when signs are installed and covered/uncovered. This work plan shall be developed according to the project mandatory standards and in coordination with WSDOT and the toll system vendor.