NPA Item 624:

Item 624 of the *Federal Register Notice* does not explicitly mention a new Option in Section 9E.02 that would have significant consequences if not revised. Paragraph 08 states, "Where there is insufficient width in the roadway to include a bicycle lane and a general purpose turn lane, bicycle travel may be accommodated through the turn lane using shared-lane markings." Figure 9E-5 appears to attempt to illustrate this concept, although it is in reference to Paragraph 15. There could be a number of conditions where this Option would cause safety issues. They include:

- The statement is not specific to right versus left turns and should not generally be applied to left turn lanes. If it were to be applied to left turn lanes the through bicycle movement on a two-way street would proceed either to the left-most side of the departure lane (where it should be on the right-most side) or would proceed as a conflicting head-on movement to the opposing left turn lane.
- The right turn lane might be too far offset from the receptive bike lane on the far side of the intersection.
- The right turn lane might be channelized to curve away from the adjacent through lane with a triangular island, where the directionality of the turn lane would not be compatible for a through movement by the bicyclist.
- A through bicycle movement from the right turn lane might be incompatible with the signal phasing, if the right turn movement has an exclusive phase and does not always proceed with adjacent through movement.

It is recommended that the Option in Paragraph 08 be deleted and that the concept be restructured by considering the following text:

"Option

Except as shown in the Standard in Paragraph xx, the through movement for a bicycle lane may be accommodated in a general purpose right turn lane or in a general purpose left turn lane on a one-way street.

<u>Standard</u>

The through movement for a bicycle lane shall not be accommodated in a general-purpose right turn lane or in a general purpose left turn lane on a one-way street where any of the following conditions applies:

- A. The offset from the general-purpose turn lane to the bike lane on the far side of the intersection is too great;
- B. The general-purpose turn lane curves away from the adjacent general-purpose through lane with a flushed or raised island;
- C. The turning movement is regulated by a traffic control signal and is not always permitted to proceed simultaneously with the adjacent through movement.

Where the through movement for a bicycle lane is accommodated in a right turn lane or a left turn lane on a one-way street all of the following traffic control devices shall be provided, as shown in Figure 9E-5 and Figure 9E-9:

- A. An R4-4 (BEGIN RIGHT TURN LANE YIELD TO BIKES) sign
- B Turn arrow pavement marking(s)
- C. Shared lane pavement marking(s)
- D. A Mandatory Movement Lane Control sign
- E. An R3-7Bp (EXCEPT BICYCLES) sign mounted below the Mandatory Movement Lane Control sign.

Support

Because entry into a turn lane by bicyclists proceeding as a through movement can be unexpected by drivers, shared lane markings, mandatory movement lane control signs and EXCEPT BICYCLES signs can confirm the routing for bicyclists and inform drivers of the special operation."

Revise Figure 9E-5 as follows:

- Show the same signs as shown in Figure 9E-9
- Show the accommodating condition on the far side of the intersection that does not have a great offset or a channelized right turn, as recommended in the Standard above.
- Simplify the figure to show only the concept of the through bike movement in a turn lane and delete the concepts of buffered bike lanes and mixing zones. These concepts can be shown in other figures. The depiction of too many concepts in one figure can result in confusion as to how each concept should be applied.

Finally, revise Figure 9E-9 to show the accommodating condition on the far side of the intersection that does not have a great offset or a channelized right turn, as recommended in the Standard above.