

**NCUTCD Proposal for Changes to the
Manual on Uniform Traffic Control Devices**

TECHNICAL COMMITTEE: Guide/Motorist Information (GMI) Signs Committee
ITEM NUMBER: XX-GM1-01
TOPIC: National Toll Interoperability Symbol
ORIGIN OF REQUEST: MAP-21
**AFFECTED SECTIONS
OF MUTCD:** Section 2F

DEVELOPMENT HISTORY:

- **Approved by Toll & Managed Lanes Task Force: 01/06/2016**
- **Approved by Technical Committee: 01/07/2016**
- **GMI Approval Following Sponsors: 06/09/2016**
- **Approved by NCUTCD Council: 06/10/16**

SUMMARY:

This proposal adopts a standard roadway symbol for national toll interoperability.

DISCUSSION

The Moving Ahead for Progress in the 21st Century Act (MAP-21) requires all Federal-aid highway toll facilities to implement technologies or business practices that provide for the interoperability (IOP) of electronic toll collection in the United States by October 1, 2016.

According to the International Bridge, Tunnel and Turnpike Association (IBTTA) web site, “The ultimate vision for North American interoperability is for customers to be able to pay for travel and related services on toll facilities across the continent with a single account and a choice of payment methods.”

About three years ago, IBTTA embraced this mandate and created an interoperability (IOP) committee of toll operators charged with achieving national toll interoperability later this year.

The IBTTA IOP committee is composed of representatives of IBTTA member toll agencies and firms that provide services to the toll industry. The IBTTA IOP committee is structured into a Steering Committee and four sub-committees: Roadside Operations (cost analysis, protocol testing), Back Office Operations (technology and finance issues), Governance (ongoing oversight, IOP compliance, membership), and Communications & Marketing (public outreach and road symbol development). The Communications & Marketing (C&M) sub-committee is comprised of toll operators from the northeast, Florida, Texas, Colorado, Washington, California and a NCUTCD representative to ensure general compliance with MUTCD roadway symbol design principles.

41 The Florida Turnpike Enterprise has contributed graphical and financial resources in developing
42 candidate roadway symbols. The C&M sub-committee paired down these pictorial
43 representations to five candidate symbols and five “international” symbols (as requested by
44 FHWA’s Traffic Control Device Pooled Fund Study). The FHWA will assist IBTTA in selecting
45 a preferred roadway symbol as part of the Pooled Fund Study.

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47 While MAP-21 requires toll operators to be interoperable later this year, the complexities
48 associated with achieving national toll interoperability are such that toll interoperability is
49 currently in place on a regional basis and will continue to be rolled-out on a regional basis prior
50 to achieving full national toll interoperability.

51
52 The new toll interoperability symbol is the nucleus of a national campaign to promote national
53 toll interoperability. The purpose of this symbol is to convey the message to motorists “Your
54 Registered Toll Payment Device Works Here.” Towards this end, IBTTA has played a key role
55 in developing and selecting candidate symbols that conform with general MUTCD design
56 principles and FHWA-approved research methods to identify a symbol and standard word
57 message that is comprehensible to motorists. In addition, IBTTA toll operators have agreed to
58 the following principals in the deployment of the new IOP symbol:

- 59 • symbol shall be included in the MUTCD
- 60 • symbol shall not replace a toll authority’s existing pictograph
- 61 • symbol shall supplement toll authority’s existing pictograph
- 62 • symbol shall be released as part of a national communication program on
63 Interoperability.

64 65 66 **RECOMMENDED MUTCD CHANGES**

67
68 The following present the proposed changes to the current MUTCD within the context of the
69 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and
70 proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously
71 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double
72 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background
73 comments may be provided with the MUTCD text. These comments are indicated by
74 highlighted light blue in brackets.

75 76 77 Section 2F.19 National Toll Interoperability Symbol

78 Support:

79 01 The display of the ~~A National Toll Interoperability~~ (NIOP) symbol (see Figure 2X-XX)
80 communicates to motorists that the tolls system is compliant with the NIOP toll collection
81 protocol and related services across the nation may be paid with a single pre-registered account.

82 Standard:

83 02 The NIOP symbol shall have the design shown in Figure 2X-XX. If a ETC is
84 interoperable, the Toll Interoperability symbol shall be displayed along with the ETC
85 pictograph. The Toll Interoperability symbol shall be displayed to the right of the ETC toll
86 pictograph(s), or within the ETC pictograph, near the lower right-hand corner (see Figure

87 **2F-xx).**

88 *Guidance*

89 03 *If used, the NIOP symbol should be displayed in a visible location such as:*

90 *A. In close proximity to an ETC pictograph (e.g., upper right corner, lower right corner,*

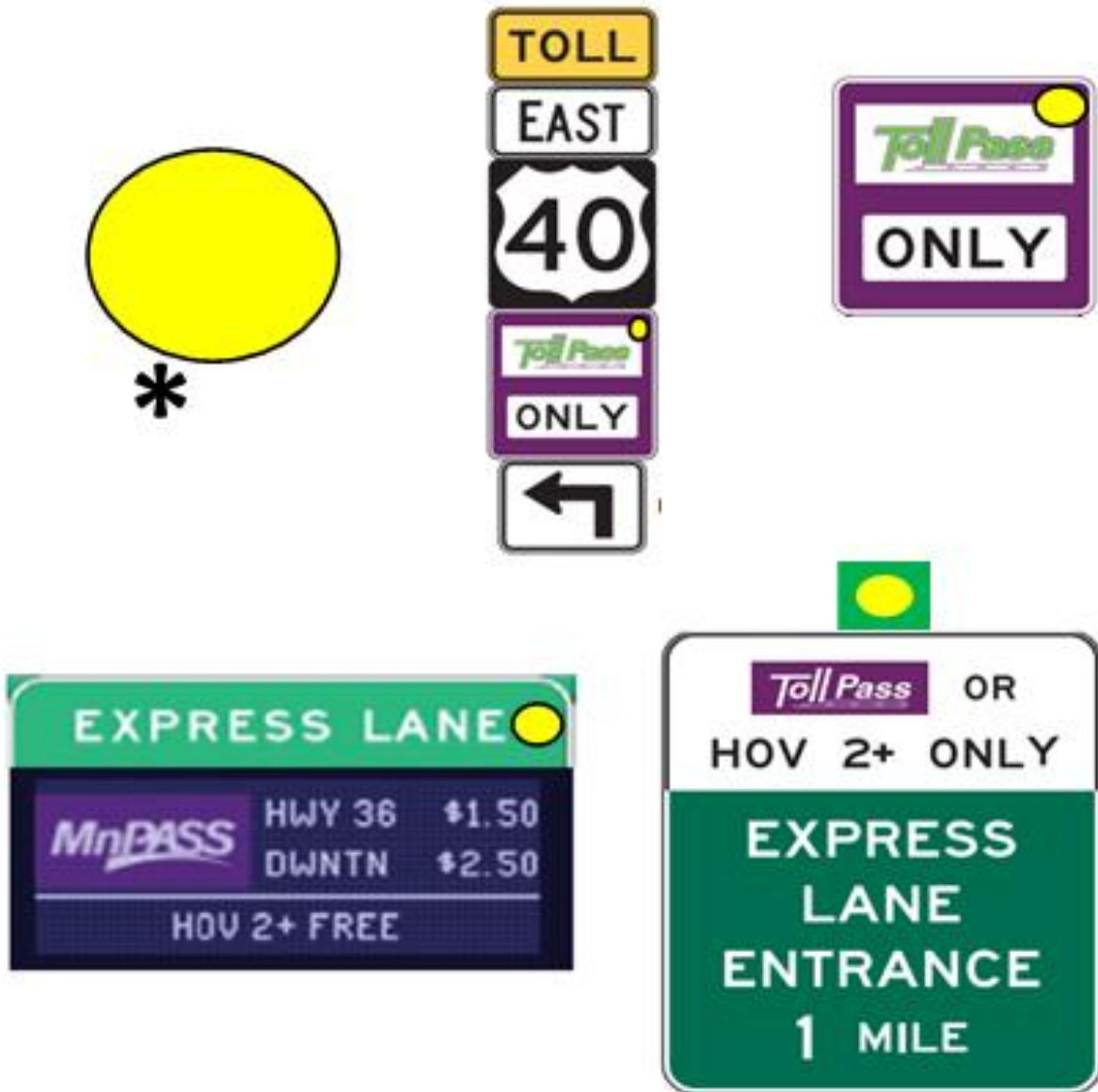
91 *immediate right or beneath),*

92 *B. Within an Express Lane header panel,*

93 *C. On an advance sign for the ETC facility.*

94 *Figure 2X-XX provides examples of how the NIOP symbol should be displayed.*

Figure 2F-XX Interoperability Symbol and Example Locations



96 * NOTE: Figure 2F-XX has not been approved by council. The interoperability symbol is
97 still undergoing human factors evaluation. The inclusion of the figure at this time was to
98 provide a visual support to the evaluation of the language. Once the human factors
99 evaluation of the symbol is completed the figure will be sent to sponsors and then brought
100 back before council for approval. The yellow circle shown is displayed as a placeholder for
101 the symbol location.

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105 June 9, 2016 – GMI Vote:

106 FOR: Unanimous AGAINST: ABSTAIN:

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108 June 10, 2016 – Council Vote

109 FOR: Unanimous AGAINST: ABSTAIN:

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