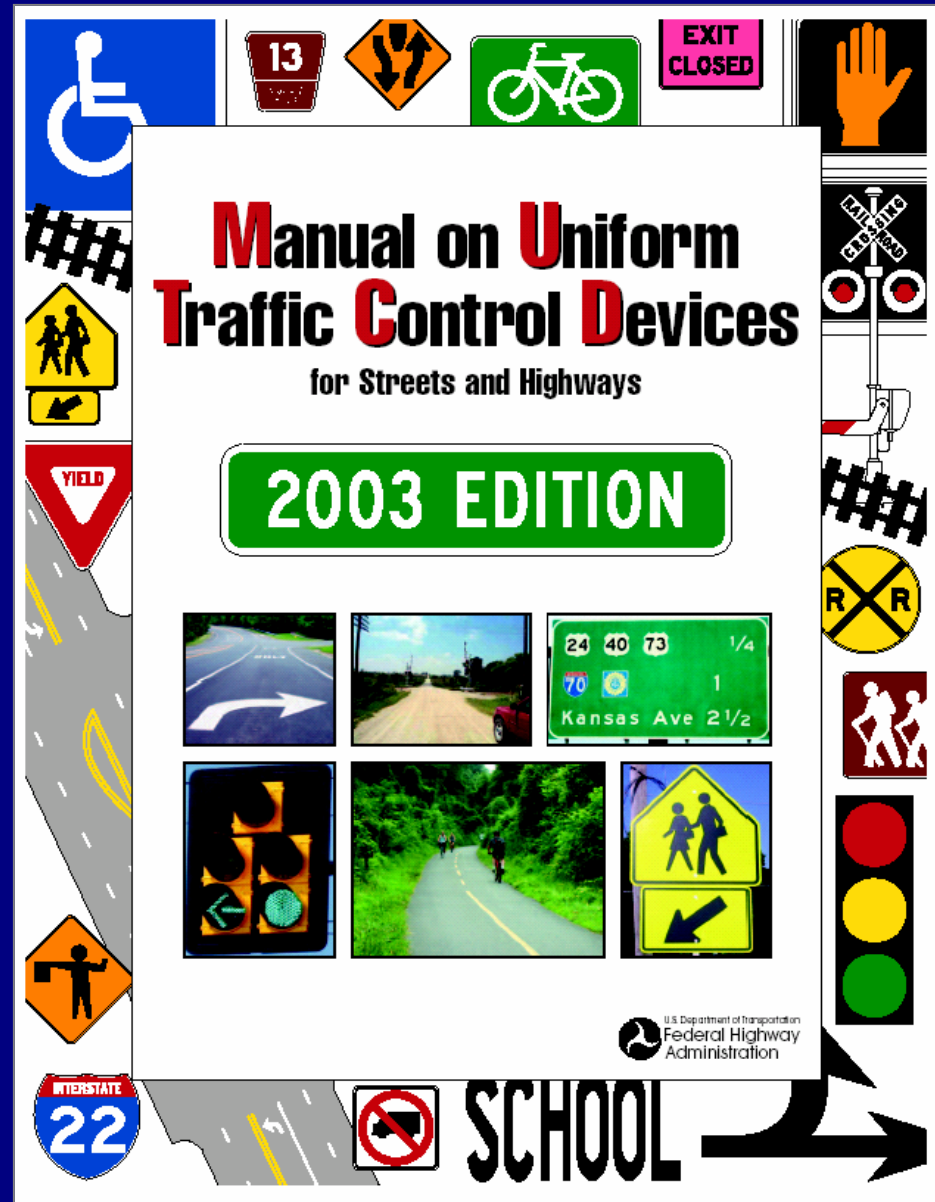
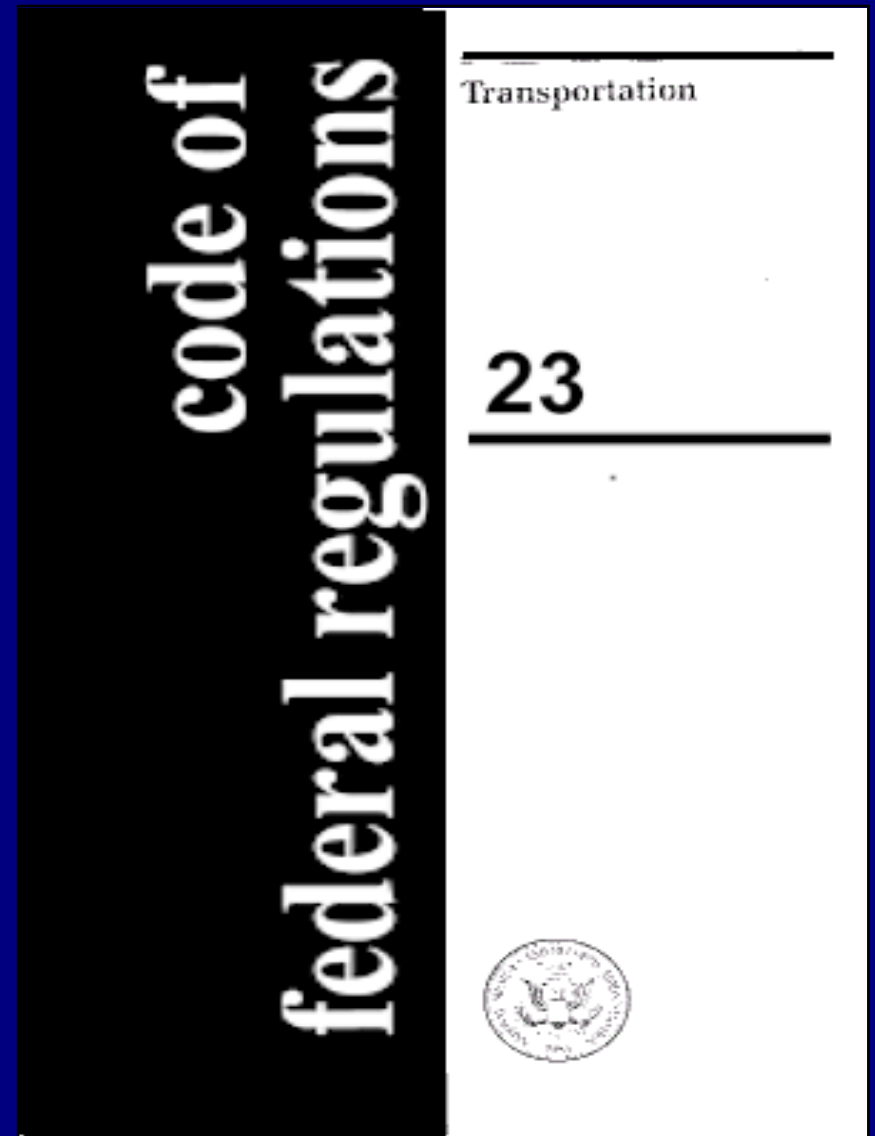


*The 2003
MUTCD*



- The MUTCD is incorporated by reference in 23 Code of Federal Regulations
- The MUTCD is the national standard for all traffic control devices
- The FHWA develops and maintains the MUTCD



Federal Highway Administration (FHWA) Office of Transportation Operations

MUTCD Team:

- Hari Kalla (Team Leader)
- Linda Brown (Part 1)
- Fred Ranck (Parts 2, 5)
- Scott Wainwright (Parts 3, 4)
- Ken Wood (Part 6)
- Guan Xu (Parts 7, 8, 10)
- Pete Rusch (Part 9)

MUTCD Team Members



Hari Kalla

MUTCD Team Members



Linda Brown (1)



Fred Ranck (2,5)



Scott Wainwright (3,4)



Ken Wood (6)



Pete Rusch (9)



Guan Xu (7,8,10)

FHWA Activities

- Works with ITE, AASHTO, NCUTCD, and others
- Develops language
- Prepares rulemaking
- Conducts and reviews research
- Approves experimentations
- Issues interim approvals
- Prepares official interpretations

National Committee on Uniform Traffic Control Devices (NCUTCD)

- Two meetings per year
(January and June)
- More than 200 volunteers
- 50%+ from governmental agencies
- Different geographic perspectives
- Different experiences and backgrounds

NCUTCD Technical Committees

- Signs – Regulatory and Warning
- Signs – Guide and Motorist Information
- Markings
- Signals
- Temporary Traffic Control
- Railroad/LRT Grade Crossings
- Bicycles

National Committee on Uniform Traffic Control Devices (NCUTCD)

39 voting members from 21 sponsoring agencies:

- AASHTO 8 members
- ITE 8 members
- NACE 3 members
- APWA 3 members
- 17 other sponsors with one member each

- Advocates for Highway and Auto Safety
- American Association of Motor Vehicle Administrators
- American Automobile Association
- American Public Transportation Association
- American Railway Engineering & Maintenance of Way Association
- American Road & Transportation Builders Assn.
- American Traffic Safety Services Association
- Association of American Railroads
- American Highway Users Alliance

- Human Factors Alliance
- International Assoc. of Chiefs of Police
- International Bridge, Tunnel, & Turnpike Assoc.
- International Municipal Signal Association
- League of American Bicyclists
- National Assoc. of Governor's Highway Safety Representatives
- National Committee on Uniform Traffic Laws & Ordinances
- National Safety Council

NCUTCD Membership

- Members
- Associate Members
- Technical Members

***NACE* Delegation**

Members

Jeff Blue – Champaign County, Illinois

John Logan – Consultant, Seattle

Lee Billingsley – Broward County

Associates

Jim Ellison – Pierce County, Washington

John Midgley – Ingham County, Michigan

Gene Russell – Kansas State University

Floridians on the NCUTCD

- Ross Airomloo - Markings
- Dave Anderson - G/MI Signs
- Bijan Behzadi - G/MI Signs
- Lee Billingsley – TTC (Chair of NCUTCD)
- Don Fullerton - Signals
- Dwight Kingsbury - Bicycles
- Joseph McGinley – RR/LRT

Floridians on the NCUTCD

- Mel McNichols – RR/LRT
- Michael Moule – R/W Signs
- Theodore Petritsch – Bicycles
- Malcolm Smith – Signals
- Ron Van Houten – Bicycles
- Bill Wilshire – Markings

How Does the NCUTCD Assist the FHWA?

- Develops and proposes revisions to existing MUTCD text
- Develops and proposes new MUTCD text
- Helps with interpretations of existing text
- Identifies needs for additional research
- Looks at research results

The NCUTCD Process

- 1) Technical committee discussion and vote
- 2) Review and comment by sponsors
- 3) Review of sponsor comments by technical committee and vote
- 4) National Committee discussion and vote
- 5) Results transmitted to FHWA

Why a 2003 MUTCD?

- More than 1,000 changes (300 “significant”)
- Comments to the docket during the development of the 2000 MUTCD
- NCUTCD requested many changes
- Greater involvement from the U.S. Access Board and OSHA
- Errors and inconsistencies were eliminated
- Graphics were improved

Development of the 2003 MUTCD

5/21/02 – Notice of Proposed Amendments

8/20/02 – End of 90-day public comment period

3/31/03 – Completed analysis of over 5,000 comments in 293 letters

10/3/03 – Completed text & figure edits, comments completed

11/20/03 – Final rule published in Federal Register & MUTCD posted on FHWA's website

http://mutcd.fhwa.dot.gov

Manual on Uniform Traffic Control Devices (MUTCD)

Knowledge

- Overview
- 2003 Edition
- Amendment Process
- SHS Book
- Sign Quiz
- FAQs

Technical Assistance

- Peer-to-Peer Program
- Discussion Area
- Editorial Comments

Resources

- 23 CFR 655
- Official Rulings
- FHWA Contacts
- Related Links
- Federal Register
- Policy Statements
- 2000 MUTCD, Rev. 1
- 1988 Edition, Rev. 3, 9/3/1993, Part VI

Services

Home Page

November 20, 2003 Federal Register Notice — Final Rule on the MUTCD 2003 Edition ([Click here](#))

Manual on Uniform Traffic Control Devices for Streets and Highways
2003 EDITION

Federal Highway Administration

Internet

Availability of 2003 MUTCD

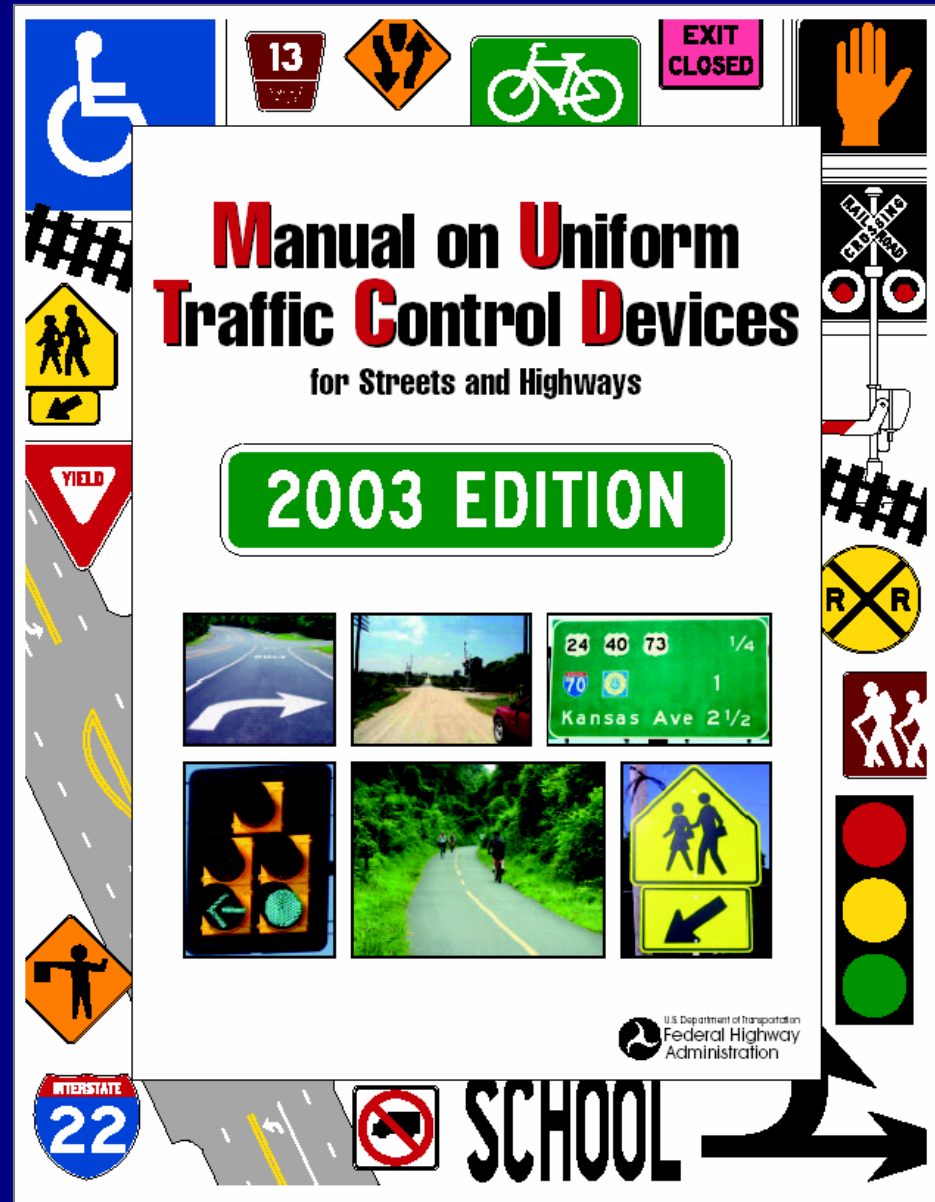
- 2003 MUTCD, Change List, and Federal Register notice are available on FHWA's MUTCD website
- Printed version can be purchased from ITE, AASHTO, or ATSSA
- Updated "Standard Highway Signs" placed on MUTCD website in late 2004

Process for Adopting the 2003 MUTCD

- FHWA adopted MUTCD changes 30 days after Final Rule – 12/22/03
- States must adopt MUTCD by 12/22/05 (within 2 years of FHWA adoption)

Revision 1

*Effective date:
November
2004*



*New sign to direct
drivers to 24-hour
pharmacies*



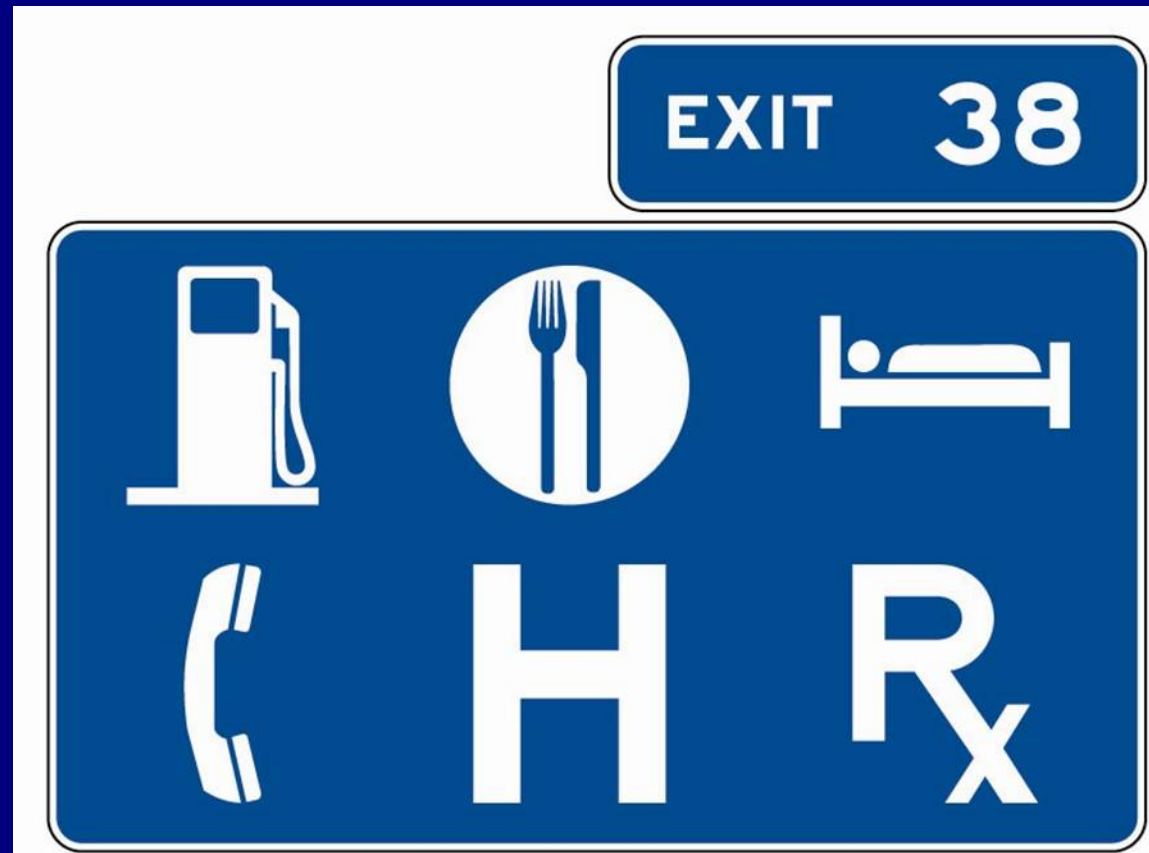
Pharmacy sign shall only be used to indicate the availability of a pharmacy that is:

- Open 24 hours per day, 7 days per week
- State – licensed pharmacist present and on duty at all times
- Located within 3 miles of an interchange on the Federal – aid system

New 8th category for General Service Signs

- Food
- Gas
- Lodging
- Camping
- Phone
- Hospital
- Tourist Information
- 24 – Hour Pharmacy

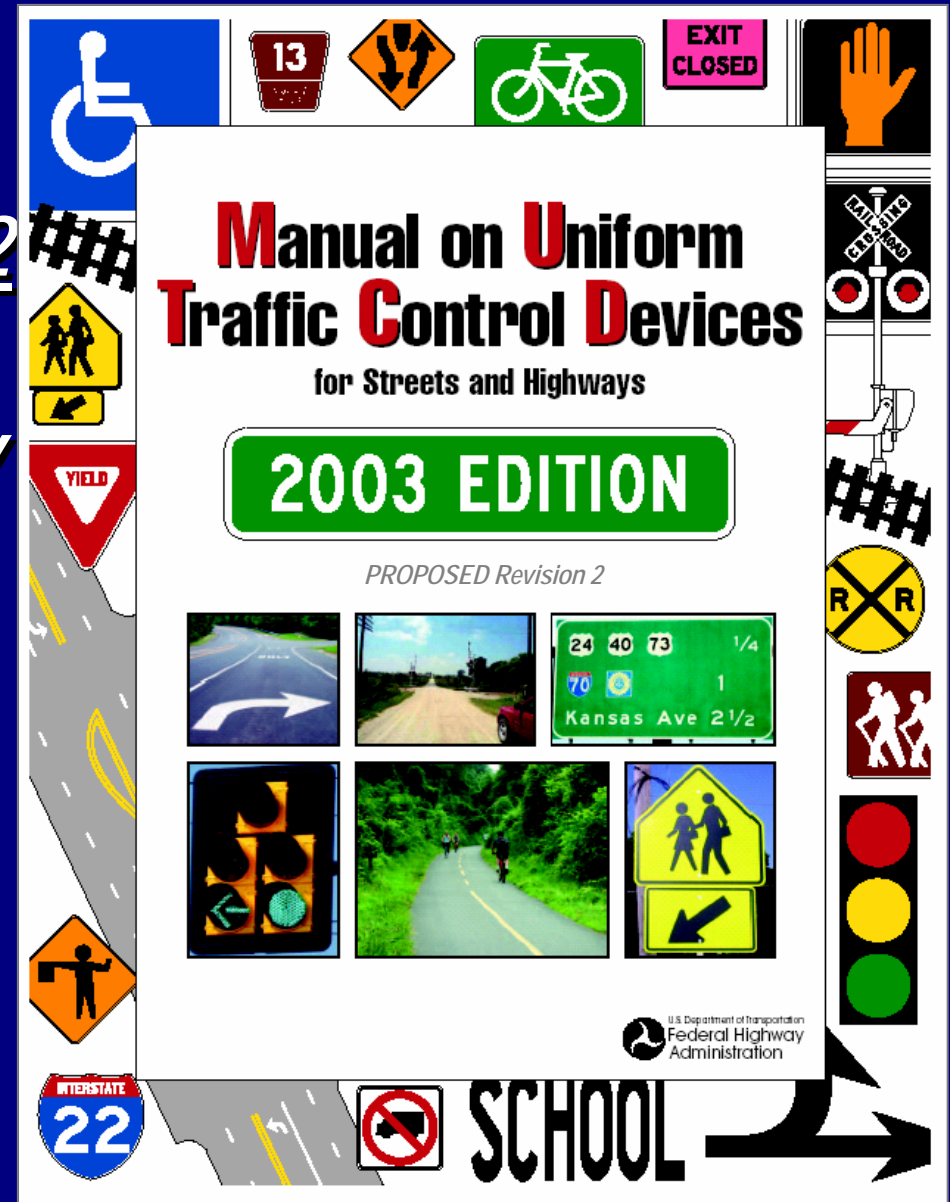
No more than six general road user services shall be displayed on one sign



Proposed Revision 2

Sign retroreflectivity

*Notice published
on
7/30/04*



Sign Retroreflectivity

Provides language for Section 2A.09 in 2003
MUTCD:

(This section is reserved for future text based
on FHWA rulemaking.)

Sign Retroreflectivity

One or more of the following assessment or management methods should be used to maintain sign retroreflectivity above the minimum levels identified in FHWA's "Maintaining Traffic Sign Retroreflectivity"

Sign Retroreflectivity

- Visual Nighttime Inspection
- Measured Sign Retroreflectivity
- Expected Sign Life
- Blanket Replacement
- Control Signs

Sign Retroreflectivity

Following signs may be excluded from the retroreflectivity maintenance guidelines:

- Parking, Standing, and Stopping signs
- Walking/Hitchhiking/Crossing signs
- Adopt-A-Highway signs
- All signs with blue or brown backgrounds
- Bikeway signs that are intended for exclusive use by bicyclists or pedestrians

Sign Retroreflectivity

Compliance dates:

- 7 years – regulatory, warning, and post mounted guide signs
- 10 years – overhead guide signs and street name signs

Sign Retroreflectivity

Comments from NACE:

- Generally supportive
- Proposed regulations place significant unfunded mandate on county governments
- Intent of compliance periods should be clarified – assessment or management process in place by end of compliance period or signs in compliance by end of compliance period. If latter, compliance periods should be extended to 10 years.

Sign Retroreflectivity

Comment from NACE and NCUTCD:

- Title of Section 2A.09 should be changed from “Minimum Retroreflectivity” to “Retroreflectivity Assessment or Management Methods”

Interim Approvals

Allow interim use, pending official rulemaking, of a new traffic control device, revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in the MUTCD.

Considered by FHWA based on results of successful experimentation, studies, or research, and an intention to place the device into a future MUTCD rulemaking.

Interim Approvals

Any jurisdiction wishing to use a device or application that has received Interim Approval - submit written request to the FHWA, Director of the Office of Transportation Operations, and state the location where the device will be used.

A State may request Interim Approvals for all jurisdictions in that State.

Interim Approvals

- Optional use of retroreflective borders on traffic signal backplates – 2/6/04
- Optional use of wayside horn system at highway-rail grade crossings – 8/2/04
- Use of Clearview Font for Positive Contrast Legends on Guide Signs – 9/2/04
- Use of Automated Flagger Assistance Devices in Temporary Traffic Control Zones – 1/28/05
- Optional Use of RV Friendly Symbol Sign – 9/6/05

Retroreflective Backplate Borders

Allows optional use of a yellow retroreflective strip at least one inch wide and no wider than 3 inches around the perimeter of the face of signal backplates to project a rectangular appearance at night.

Retroreflective Backplate Borders

- Research over 7 years in British Columbia
- 15% - 24% reduction in total crashes, especially rear-end crashes
- Border provides distinctive frame around traffic signal display at night allowing road users to readily locate the signal face among background lighting
- Border assists road users in detecting presence of signalized intersections during nighttime power outages

Retroreflective Backplate Borders



Daylight



Nighttime

Wayside Horn System (WHS)

WHS is located at the RR grade crossing:

- Simulates the sound and pattern of a train horn
- Provides similar (or safer) response from road users
- Eliminates requirement that locomotive sound its horn beginning a quarter-mile from the crossing
- Minimizes the audible impact on individuals located near the crossing

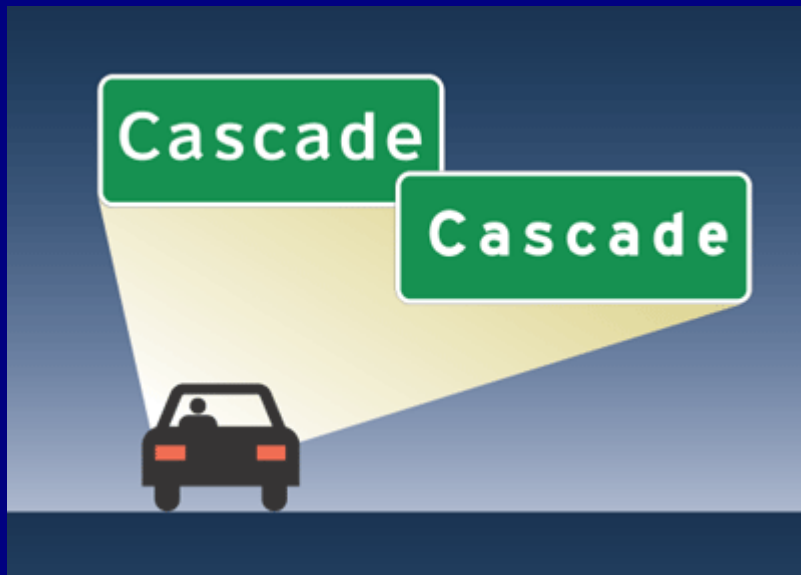
Wayside Horn System (WHS)

- May be installed at highway-rail grade crossings with active traffic control devices consisting of, at a minimum, flashing lights and gates
- Shall be installed for each roadway approach to the crossing to provide audible warning

Clearview Font

- Developed through decade of research starting in early 1990s
- Goal to upgrade highway signing word messages to accommodate needs of older drivers without increasing capital letter height and overall length and height of word messages and signs
- Improve speed and accuracy of destination recognition and the legibility distance of word messages

Clearview Font



Clearview

FHWA Series E



Clearview

FHWA Series D

Clearview Font

- Improved nighttime sign reading distance by 16% when compared with the FHWA Series E alphabet
- Compared with FHWA Series D alphabet there was a 14% increase in recognition when viewed by older drivers at night, with no loss of legibility

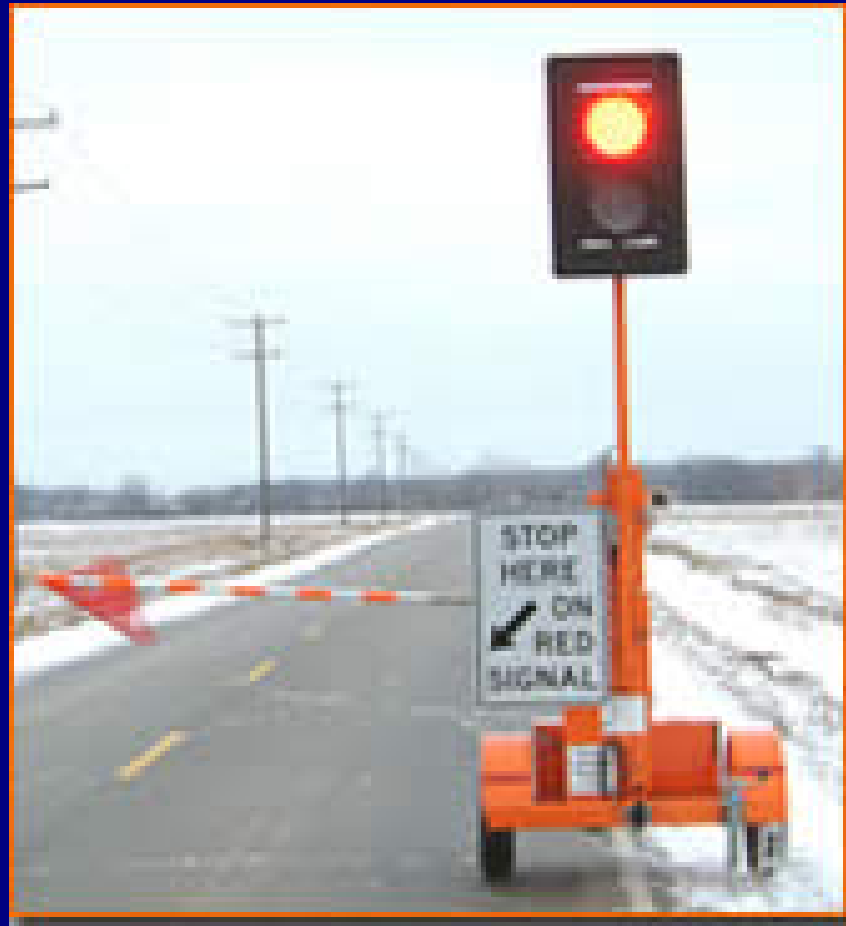
Clearview Font



Automated Flagger Assistance Device

- Portable traffic control system that assists flagger operation for short-term lane closures on two-lane highways
- Can be operated by radio control unit or cable directly attached to device
- Allows flagger to be positioned well away from the roadway and moving traffic

Automated Flagger Assistance Device



Automated Flagger Assistance Device

- Appearance of device simulates a signal
- Live flaggers are more adaptive to changing conditions on a job
- Live flaggers are needed to attract drivers' attention
- Experience indicates that drivers do not always honor RR gates and there is concern they will not honor this one
- Major education effort will be required to assure proper use

RV Friendly Symbol Sign

- Motorists driving RVs may experience difficulty in locating facilities that have large parking spaces and other amenities that over-sized vehicles need
- Study in Oregon found RV Friendly symbol provides easy recognition and alerts RV motorists to roadside services that cater to the special needs of motor home and RV trailer combinations

RV Friendly Symbol Sign



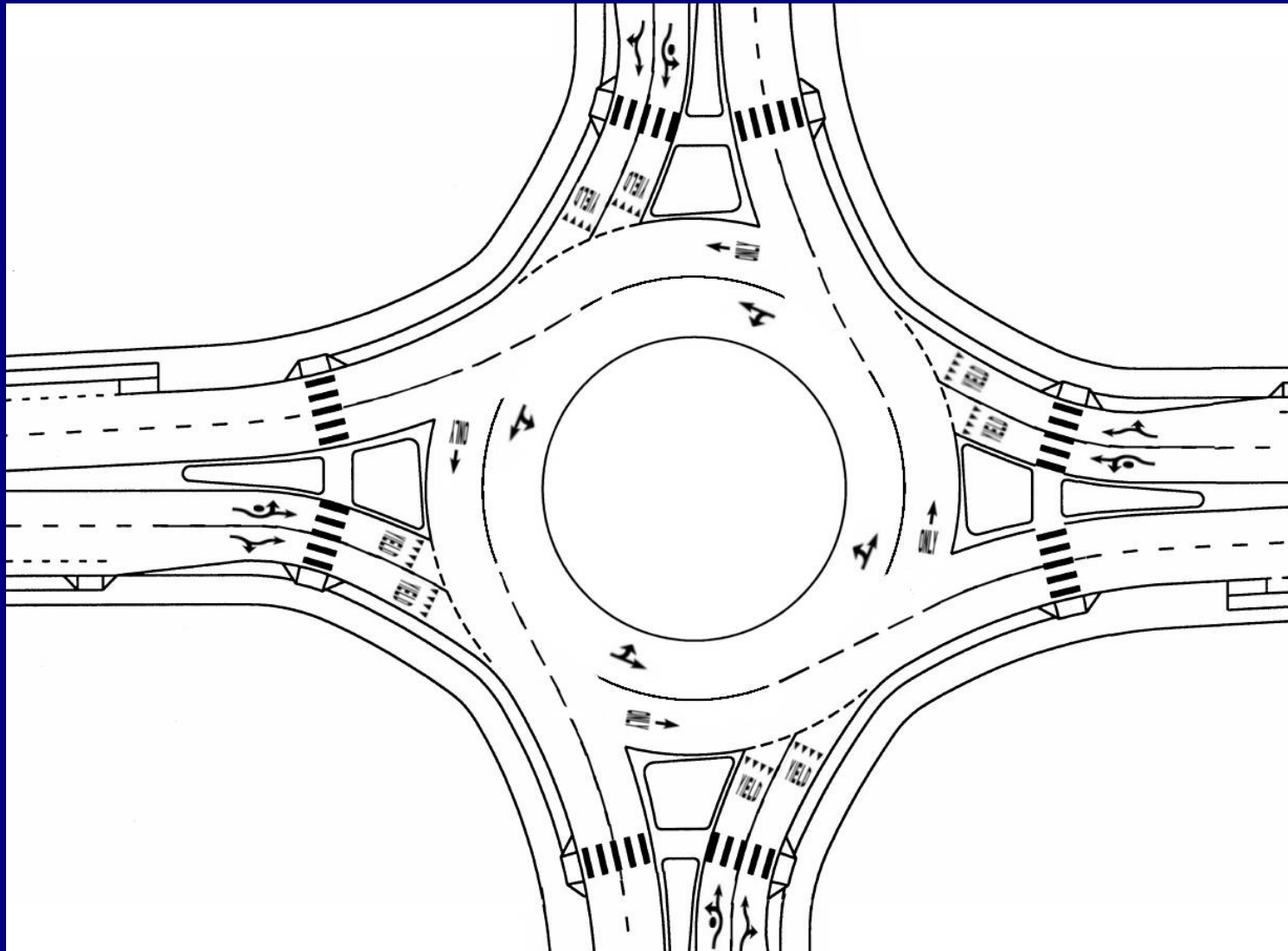
RV Friendly Symbol Sign



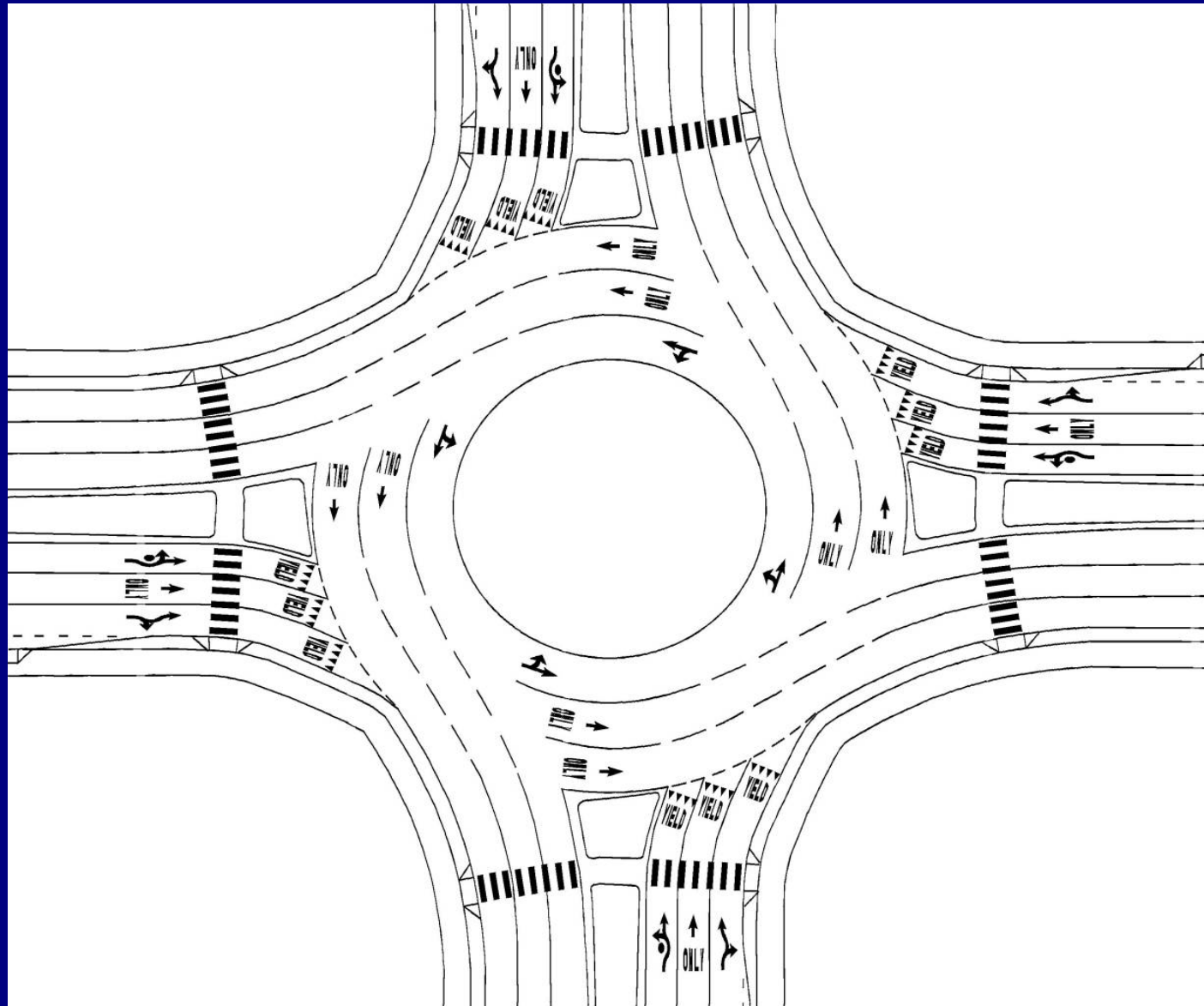
Roundabouts

- Pavement Markings
- Guide Signs
- Regulatory Signs
- Warning Signs

2 Lane Roundabout, 2 Lane Approach



3 Lane Roundabout, 3 Lane Approach



Web Site for NCUTCD

- www.ncutcd.com
- www.ncutcd.org
- www.ncutcd.net

Questions?