The New MUTCD – What to know

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Hawaii ITE Section
February 28, 2024
Agenda

• Federal Register Summary of Changes
• What groups have highlighted
• Randy’s Docket Comments
• NCUTCD Annual Meeting Highlights
Compliance Dates
- 9/26 Marking retroreflectivity
- 5 yr Low Clearance/Hi-profile
- 10 yr Signals near grade xing

Experimentation

Speed Limit Setting
- 20
- 25
- 35
- 45
- 55

Electric Vehicles and Alternative Fuels

AMBER Alerts on CMS

Safety Messages on CMS

Normal Line Width 4”/6”

Retroreflective Pavement Markings
Final Rule
September 6, 2022

Crosswalk Markings

Aesthetic Surface Treatments

Traffic Signal Accessibility
PROWAG
August 8, 2023

Signal Crash Warrant
Pedestrian Signals

2009 Engineering Judgement ➔ 2023 Should ≠ Shall

Accessible Pedestrian Signals

Study ➔ Lean into PROWAG

PHB Warrants

Options for lower walking speeds

?? Standard to Option ??

Pedestrian Change Interval w/ Preemption

Bicycle Signals at PHB

Automated Vehicles

Part 5

Diagnosis Team

Bicycles as Vehicles

Two-stage Bicycle Box

Bend out at Intersections

Counterflow Bicycle Lane

The NO moved from Standard to Guidance when next to a vehicle lane

Termination of Interim Approvals
**SHALL** – a statement of required, mandatory or specifically prohibited practice regarding traffic control devices

**SHOULD** – a recommended practice in typical situations, with deviations allowed if appropriate via engineering judgement/study

**SHOULD v. SHALL**

What does that mean?
Pedestrian Signals

2009 Engineering Judgement

2023 Should ≠ Shall

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Most Common Highlights

What EVERYONE is Talking About:
• Speed Limit Setting Changes
• Rectangular Rapid Flash Beacons (no longer interim approval)
• Two-stage Bicycle Box
• Bicycle signs and markings
• Colored Pavement
• Pedestrian Heads (should)

What Some are Talking About:
• Pedestrian Crossing Enhancements
• Leading Pedestrian Intervals
• Accessible Pedestrian Signals
• Pedestrian Hybrid Beacon
• Safe Systems Approach
• Connected & Automated Vehicles
• EV & Alternative Fuels Symbols
• Lots of grade crossing changes

Summaries - Beyond the Press Release
Possible Areas for Technical Corrections and Previously Approved Content

- Vehicle Weight Limit Signs
- No Turn on Red Sign
- Neighborhood Traffic Circle
- Bus Symbol
- Clarifying when using 6” lines – wide can be 8”
- Bar Pair Crosswalks
- “Shall be permitted” language
- Mid-Block Pedestrian Signals
- Additional Signal Justification Language
- Pedestrian Definition
- Pedestrian Change Interval into Preemption
Randy’s List of Examples new 2023 MUTCD Content

- Vehicle Speed Feedback Signs
- Pedestrian Clearance Intervals into Preemption
- Traffic Calming Roundabout
- Advance Placement of Warning Signs
- Table 2C-3
- School R1-5 a & R1-5c
- Airports

No more phone # or URLs

Arrows up
Randy’s List of Examples new 2023 MUTCD Content

Vehicle Speed Feedback Signs

Pedestrian Clearance Intervals into Preemption

Traffic Calming Roundabout

Airports

Advance Placement of Warning Signs

Table 2C-3

School R1-5 a & R1-5c
Setting of Speed Limits

Speed zones (not statutory) shall be based on study

- Roadway Environment
- Roadway Characteristics
- Geographic Context
- Reported Crash Experience
- Speed Distribution
- Past Speed Studies

Among the factors, such as:

- Roadside development, driveways/access, functional class, transit volume/bus stops
- Lane widths, shoulder condition, grade, alignment, median type, sight distance
- Urban district, rural town center, non-urbanized rural, suburban, multimodal trip generation
- 12-months+
- Pace, median, 85th percentile (10+ mph above posted)
- Trends in operating speeds
85th Percentile

- Urban and suburban arterial & rural arterials that are main streets – 85th should NOT be used

- Freeways, expressways and rural highways outside urbanized locations – posted speed should be within 5 mph of 85th percentile, IF all factors have been considered and measures to address speed have been considered to the extent practicable

- When 85th percentile is appreciable greater than posted speed – seek measures to improve compliance with speed limit

- Studies should be undertaken when:
  - Roadways have undergone change
  - Programmed reviews
Vehicle Speed Feedback Signs

- When used to display speed of a vehicle in relation to posted speed limit, the plaque shall be mounted below a Speed Limit sign (R2-1)
- When used to supplement a horizontal alignment warning, shall be placed near point of curvature
- Shall not flash or strobe
- Shall not change color
- Shall not display legend when no vehicles are approaching
**Colored Pavement**

**Aesthetic Surface Treatments (decorative)**
- Within crosswalk, sidewalk extension, islands
- Not to confuse persons with vision disabilities
- Not to be mistaken as a traffic control device (colors outside the chromaticity boxes, not retroreflective)
- Not to encourage road uses to remain in crosswalk (ie. social media/selfie behavior)

**Colors for functions:**
- White for channelizing islands, right-hand shoulders, gore areas
- Yellow for medians, left-hand shoulders
- Green for bicycle facilities
- Red for public transit systems
- Purple at toll-plazas for vehicles with registered ETC or open-road tolling bypasses using ETC
New TTC Applications

- Roundabouts
- Bike lane closure
Traffic Control Signal Warrants

**Shall to Should**

- Eight-hour volume
- Four-hour volume
- Peak hour
- Pedestrian volume
- School crossing
- Coordinated system
- Crash
- Roadway network
- Near a grade crossing

**Crash Warrant**

- Was 5 crash/year + 80% of volume warrant
- **NOW**
  - Calls out right angle and pedestrian crashes
  - Breaks out total crashes from fatal/serious injury
  - Table for crashes (3 to 5)
  - Adds 3-year criteria and table for crashes (5-6) and fatal/serious injury (4)
  - HSM safety performance functions - future
Pedestrians at Grade Crossings

At a pathway or sidewalk grade crossing where trains >80 mph = GATES

At pathway or sidewalk LRT crossings where LRT speed >40 mph = GATES

At pathway or sidewalk LRT Crossings where LRT speed >25 mph = ACTIVE

Swinging gates

Prohibition of Pedestrian signal use at a sidewalks or pathway grade crossing

Not storing pedestrians at multiple track grade crossings

Diagnostic Teams
What’s next?

- States have two years to adopt (Hawaii October 1, 2024)
- PROWAG
- “Technical corrections”
- Revision 1
- Proceed with proposals for change
- 4-year Congressional update criteria
- 12th Edition visioning
  - Other countries
  - Application enhancement
FHWA Dispositions
“considered in the future”
ITE NCUTCD Delegation

- Luana Broshears, ITE/Kathy Falk, Chair
- Meets twice a year (January & June) with the AASHTO Committee on Traffic Engineering
- ITE Delegation one of the largest
- Review proposals for change of MUTCD

Always welcoming interested individuals
Questions

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