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{Electronic Submission}

Subject: **FEDERAL HIGHWAY ADMINISTRATION PROPOSED REVISIONS TO THE MUTCD (DOCKET NO. FHWA-2020-0001)**

The City of Los Angeles Department of Transportation (LADOT) appreciates the opportunity to review and comment on the Notice of Proposed Amendments (NPA) for the 11th edition of the Manual on Uniform Traffic Control Devices (MUTCD). Updating and maintaining the relevance of the MUTCD is critically important to transportation safety, equity, and sustainability.

The City of Los Angeles is a proving ground for the latest innovations in transportation technology and mode shift to both emerging and traditional ways of getting around. Tragically, our City also suffers from persistently high rates of fatalities and serious injuries resulting from traffic collisions. The MUTCD directly governs the design, selection, and placement of the markings, signs, and traffic control devices we install on our streets. The guidance and standards found in its pages; the limits these standards impose; and the bias they contain are the DNA of our streets and directly attributable to the safety and climate outcomes of our current system. For example, whether drivers travel at safe speeds determines the rate and severity of crashes on our streets, and the MUTCD's continued reliance on the 85th percentile methodology limits our ability to ensure safety for all road users. It is critical that the MUTCD finally prioritize and directly address cities' concerns.

It is with our professional knowledge and experience that we offer the critical recommendations in the following three attachments. In addition to the comments provided under this cover, LADOT contributed to and strongly supports those submitted by the National Association of City Transportation Officials (NACTO).

The traffic control devices guided by the MUTCD have an immeasurable impact on the safety, comfort, and overall operations of our roads, sidewalks, paths, and trails. We strongly recommend that USDOT re-evaluate the process to create and update this manual and examine why the MUTCD – the primary

design manual in the country – has failed to respond with more urgency to the epidemic of traffic fatalities disproportionately impacting people walking and biking, low income neighborhoods, and people of color throughout the United States. It is unclear that the current process can grapple with the climate, public health, safety, and economic challenges we face in the 21st century given its clear bias towards vehicle speed and throughput.

Sincerely,

Seleta J. Reynolds
General Manager

SJR:TF

Attachments

LADOT Comments on Proposed Revisions to the MUTCD

STOP Signs

STOP signs can be an effective tool to reduce speeding on lower volume roads. While their primary function is to assign right-of-way, the ability to install them at the uncontrolled approaches of an intersection, based primarily on their ability to reduce speeds, should not be prohibited or even discouraged (MUTCD Section 2B.06, Page 66, Line 9). That being said, this is not a recommendation to encourage indiscriminate use of stop signs.

The collision thresholds in support of consideration of STOP signs are too high to be practical (MUTCD Section 2B.13, Page 70, Line 43-48). Consider reduced thresholds that would still indicate a pattern of correctable collisions.

Additionally, consider adding language to disclose that jurisdictions have the ability to permit bicyclists to treat STOP signs as yield indications. This has been done in several states and cities, and evaluation data suggests a reduction in bicyclist-involved collisions.

Crosswalks

Guidance on whether to mark crosswalks at uncontrolled approaches relies too heavily on existing pedestrian volume (MUTCD Section 3C.02, Page 369, Line 11-24). This is a "cart before the horse" scenario, where the lack of an existing marked crosswalk with appropriate features contributes to the lack of pedestrian volume, and therefore demand to cross is not adequately captured or demonstrated. Consider replacing "pedestrian volume" with "latent pedestrian demand". With the crosswalk in place, would there be significant usage, and therefore benefit, to marking the crosswalk with appropriate features? If the answer is yes, a marked crosswalk should be considered.

While the MUTCD contains some guidance referencing when crosswalks should be supplemented with warning beacons, Pedestrian Hybrid Beacons, or other enhancing features, the guidance is vague (MUTCD Section 4J.01, Page 476, Lines 15-34 & Section 4S.03, Page 502, Lines 19-30). FHWA's *Guide for Improving Safety at Uncontrolled Crossing Locations* has richer and more discrete guidance which would be better served by incorporating it into the MUTCD. Of particular value is *Table 1. Application of pedestrian crash countermeasures by roadway feature* which considers combinations of traffic volume, traffic speed, and roadway geometry that suggest when supplementing features should be considered.

Limiting aesthetic colored crosswalk treatments only to roads with a speed limit of 30 miles per hour or less, seems overly restrictive (MUTCD Section 3H.02, Page 390, Line 26-27). No evidence has been found that would suggest adverse impacts from aesthetic colored crosswalk treatments on roads with higher speed limits.

Traffic Signals

Similar to STOP signs, traffic signals can be operated in such a manner that they can reduce speeding along a road. While a decision to install a traffic signal at a location should continue to be guided primarily based on satisfaction of the warrants provided, the type of operation of the signal should be flexible and at the discretion of jurisdictional authorities (MUTCD Section 4B.02, Page 409, Lines 41-43).

For example, “Rest In Red” operation is an effective speed control measure and has been used widely with positive outcomes.

The “Pedestrian Volume” warrant is too narrow in scope to adequately capture the varying needs related to pedestrian circulation that can be successfully met with the installation of a traffic signal (MUTCD Section 4C.05, Page 416, Lines 42-43). Rather than focusing on the existing pedestrian volume, practitioners should be directed to first evaluate a location for marked crosswalk suitability; once a decision is made to install a marked crosswalk, if conditions are such that Pedestrian Hybrid Beacons would be appropriate, a traffic signal should be considered an alternative to Pedestrian Hybrid Beacons, should practitioners find it more suitable, whether based on proximity to other traffic signals, the need to control the minor street approaches, or other factors. Additionally, this warrant should also be inclusive of bicycle circulation needs or a “Bicycle Volume” warrant should be introduced. Similarly to the suggestions made for “Pedestrian Volume” warrants, latent demand based on a regional bicycle infrastructure network planning context as well as land use should be considered. Other considerations should include the presence or planning of a Class I or two-way Class IV facility for which a signal would be imperative for continuity, and bicycle crashes, where the bicycle crashes could be incorporated into the collision warrant with specific thresholds. Lastly, conditions where a bicycle or multi-use path or trail is or will be within the median of a road, or alongside a road, and there is a desire to protect turns across the bicycle or multi-use path or trail, should be considered.

Multiple lanes for permissive turning movements can result in visibility challenges when it comes to seeing pedestrians in conflicting crosswalks, or opposing traffic. At locations where there are multiple left turn or right turn lanes on an approach (inclusive of where one of those left turn or right turn lanes is an option lane), and where pedestrians are permitted to cross in the crosswalk across which those turns would be made, or where there is opposing traffic across the path along which those turns would be made, turns should be required to be protected and exclusive from the pedestrian and opposing phases (MUTCD Section 4C, Page 421).

For mid-block traffic signals intended primarily to serve crosswalks, the use of flashing red indications during the WALK or flashing upraised hand intervals is commonplace and should not be prohibited (MUTCD Section 4I.06, Page 473, Lines 27-31). It may be more appropriate to recommend a steady red indication during the WALK phase to avoid conflicts when pedestrians are entering the crosswalk.

Allowing right turns on red can have adverse impacts on pedestrians in some circumstances. While No Right Turn on Red signage is included in the MUTCD along with some guidance for where it should be considered, including locations with “pedestrian conflicts involving right turning vehicles” (MUTCD Section 2B.61, Page 109, Lines 25-35), additional guidance should be provided that takes into account conditions where pedestrian volume is significant, and/or the ability for drivers to look for gaps in cross-traffic is limited from behind the limit line or crosswalk.

Wherever pedestrians can legally cross a street at an intersection controlled by a traffic signal, they should be provided with the same level of right-of-way indications as drivers. As such, pedestrian signal heads should be required in all such cases (MUTCD Section 4D.02, Page 423, Line 16).

Crossing Guards

Crossing guards not only help with gap assessment, they also add conspicuity to children crossing who are typically smaller in stature than adults and may not be as visible. As such, guidance for where crossing guards may be most beneficial should be provided, which would include factors such as locations with uncontrolled crossings, signalized crossings with permissive turning movements, and the factors that may additionally contribute such as speed of traffic, difficulty of turning movements across respective crossings, volume of vehicles and pedestrians, etc. Guidance for the job qualifications of a crossing guard is outdated and should be removed from the manual (MUTCD Section 7D.01, Page 678).

Red-Colored Pavement

There is now ample evidence that adding red-colored pavement to transit lanes is beneficial, and there is no evidence that it would be counterproductive. Consider listing the benefits that adding red-colored pavement to transit lanes may provide, and consider allowing for the use of intermittent red colored pavement within transit lanes and their extensions through intersections (MUTCD Section 3H.07, Page 392, Line 40-41).

Rail

Operation of rail vehicles in street-running mode without gates at speeds above 35 miles per hour has been observed to be problematic due to the extended stopping sight distance of rail vehicles due to the braking and weight characteristics of the vehicles. It is recommended to require gates and prohibit street running mode for rail vehicle speeds above 35 miles per hour (MUTCD Section 8D.04, Page 710, Lines 29-30).

While truncating pedestrian clearance during preemption should continue to be permitted as it is in the revised manual, practitioners should be encouraged to consider accommodating pedestrian clearance time in the preemption sequence whenever possible and practical (MUTCD Section 4F-19, Page 459, Lines 34-39).

Bicycle Lanes

Part 9 places extensive new restrictions on bicycle infrastructure through the use of regulatory standards ('shall' statements), most of which should be downgraded to guidance ('should' statements) or options ('may' statements).

Chapter 9E (and 3H) places unreasonable prohibitions on the use of green for shared-use paths, trails, and green-backed sharrows, and provides unworkable distinctions between on-street and 'independently aligned' protected bike lanes, without data to support the prohibition, and in contradiction to accepted engineering practices.

Comments to "Corrected MUTCD 11ed NPA Text-Mark-Up" Text Document

ID: FHWA-2020-0001-0038

Comment No.	Page	Line(s)	Topic	Agree with concept; suggested rewording of text in Comments	Disagree with concept	Comment
1	5	12	Relations to Other Publications	N/A	N/A	1998 ITE Manual of Traffic Signal Design is outdated. Some content is irrelevant given advances in technology. Please consider other national publications, or other State's manuals as a more modern reference.
2	5	22	Relations to Other Publications	N/A	N/A	Consider adding the newer 2012 FHWA Lighting Handbook and 2005 AASHTO Roadway Lighting Design Guide (GL-6).
3	5	23-25	Relations to Other Publications	N/A	N/A	Consider adding the newer 2017 NCHRP Synthesis 507 for the Railroad Preemption, which is more relevant to the practice.
4	5	36	Relations to Other Publications	N/A	N/A	Consider adding or replacing 2008 FHWA Signal Timing Handbook with 2015 NCHRP Report 812, which is the 2nd Edition to the FHWA's 2008 publication, as it is more relevant to the practice.
5	6	6-10	Relations to Other Publications	N/A	N/A	Consider adding NACTO's publications: Urban Street Design Guide; Urban Bikeway Design Guide; Transit Street Design Guide; etc
6	15	45-50, 51-53	Definitions	N/A	N/A	Need to retain all definitions pertaining to Railroad Preemptions, unless they are moved to other parts of MUTCD. See NCHRP Synthesis 507 or NCHRP Report 812.
7	23	3-19	Definitions			
8	27	53-55	Definitions			
9	33	16	Abbreviations	N/A	N/A	Add NACTO - National Association of City Transportation Officials
10	70	49-50	Stop Signs	YES	NO	C under Warrant A should be deleted, since it is covered in Warrant B.
11	73	14-16	Crosswalk Signs	NO	YES	The distance threshold for the sign placement is not practical when the crosswalk is at an intersection and on the far side, and where minor street is wider than 50 feet. Signs "should" be placed at or as close to yield line or limit line as practical.
12	74	10-14	Crosswalk Signs	NO	YES	The In-Street Pedestrian/Trail Crossing signs correspond with the yield or stop advance line and as such, should be installed adjacent to said lines, not the crosswalk itself. Additionally, lane line installation should be permitted for two-way roads. It can be mentioned that both the double-yellow and lane lines can be turned into painted islands with applicable tapers to allow for the in-road signs to be installed while mitigating their risk of being struck by passing vehicles.
13	74	37-38	Crosswalk Signs	NO	YES	Double-sided signage would not be applicable per the previous comment. Signs should be installed adjacent to yield or limit lines in each separate approach direction.
14	96	15-16	Divided Hwy Signs	YES	NO	Clarify language to define "low speed urban street".
15	99	40-43	Divided Hwy Signs	NO	YES	The thresholds provided are too low to be practical. The threshold should be mirrored for both DIVIDED HIGHWAY and DO NOT ENTER signs for divided highways in urban areas.
16	105	18-21	Blanket Parking Restrictions	YES	NO	Where a single blanket parking restriction is used for a jurisdiction-wide restriction, minimum sign sizes and text sizes are needed. Larger or more conspicuous signs are needed for roadways where there is more than one lane, and the sign is posted in an area where drivers may not be looking for parking restriction signs.
17	149	32-38	W7-3aP signs "Next XX miles"	YES	NO	Instructions need to be provided for when distances less than a mile are used. Consider "When the distance is in miles, the mileage shown should be rounded up to the nearest 1/4 mile for a distance of less than 1 mile and to the nearest mile for distances over one mile." The text “MILE” should be used for a distance of one mile or less. The text “MILES” should be used for distances over one mile.
18	344	37-38	Longitudinal Markings	YES	NO	Additional guidance for where double solid white lines are to be used would be helpful (e.g. another option for approaches to uncontrolled crosswalks).
19	358	7-10	Yield Line Markings	NO	YES	The distance threshold is not practical when the crosswalk is at an intersection and on the far side, and where the minor street is wider than 50 feet. The Yield Line "should" be placed at the furthest side of the minor street intersection.
20	373	8-9	Crosswalk Markings	NO	YES	Why are the markings of high-visibility diagonal crosswalks prohibited? Enhanced conspicuity may be desired even at such locations to futher emphasize the relatively unusual crossing pattern where motorists are typically prohibited from making any movement during the pedestrian signal phases.
21	392	16-18	Bicycle Markings	NO	YES	The prohibition of green colored pavement from being incorporated into shared-lane markings is overly restrictive. There is a large desire across the industry, including our City, to use green-backed shared-lane markings and there is no evidence to indicate that such use would be counterproductive.

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22	399	33-36	Island Delineation	NO	YES	Delineators only come in one color, not yellow/white on one side and red on the other side. In many cases, the delineators are seen by traffic in opposite directions. Modify text to read "Delineators installed on islands shall be the same colors as the related channelizing or edge lines except that, when only facing wrong-way traffic, they shall be red (see Section 3F.3 3G-3)."
23	406	13-19	Meanings of Pedestrian Signal Indications	NO	YES	Include language to indicate that the meaning of the pedestrian flashing WALK/DON'T WALK symbol signals vary depending on jurisdictions. In California, pedestrians are permitted to enter the crosswalk during the FDW interval.
24	410	20	Traffic Signals	YES	NO	Replace "…thereby profoundly influence traffic flow" to "...thereby directing traffic flow in an orderly manner."
25	411	10	Traffic Signals	YES	NO	Clarify how to "assist pedestrians" (i.e. increase pedestrian visibility).
26	419	9	Traffic Signals	YES	NO	Consider changing "apparently" to "conclusively".
27	423	16 - 32	Traffic Signals	NO	YES	Pedestrian signal heads should be optional if there are physical features such as railroad gate equipment that would prevent the ability to provide a legal pedestrian crossing.
28	423	46	Traffic Signals	YES	NO	Replace "…physically discourage the pedestrian movements" to "...physically discourage pedestrians from entering the roadway."
29	431	10-11	Traffic Signals	NO	YES	Current language should be revised as LED signs with "train" or "bus" symbol and text are used next to vehicular signal indications at light rail and busway intersections that operate without gates.
30	445	21	Traffic Signals-FYA Sequence C	NO	YES	Edit the last sentence to "...provide a red clearance interval and/or red revert interval."
31	455	22	Traffic Signals	YES	NO	Change "This provisions..." to "The provisions...".
32	464	29	Bicycle Signals	NO	YES	The word "conflict" should be striken. This statement addresses conditions where a bicycle movement is allowed simultaneous to a permissive vehicular movement that must still yield to bicyclists (steady green for bikes, FYA for vehicles). That does not indicate a "conflict".
33	466	24-25	Signal Faces	NO	YES	Arrow signal indications with bicycle symbol should be allowed. The document does not explain why it shall not be used. It is used in other countries.
34	471	26	Traffic Signals-Countdown Peds	NO	YES	Delete the reference regarding "by the engineer." Care should be exercised by "all professionals" authorized for traffic signals.
35	472, 481	36, 25	Traffic Signals- Ped Push Buttons	NO	YES	Simultaneous for "all" crosswalks. Not just "both" crosswalks, because crosswalks can be diagonal in addition to typical orientations.
36	473	7-8	Traffic Signals-Median Push Buttons	NO	YES	The purpose of this statement is not clear. Why prevent the general public access to the pedestrian push buttons?
37	474	18-19	Traffic Signals- Ped Speed	NO	YES	The word "routinely" needs to be better defined with a usage/users range. How often is "routinely?" And instead of "a walking speed less than 3.5 feet per second should be considered," why not offer a minimum pedestrian speed, for example, 2.0 feet per second? The current language of "less than 3.5 feet per second" is too vague.
38	475	24-27, 28-34	Traffic Signals- LPI	NO	YES	Request for further clarification. If LPI is 4 seconds, and standard WALK is 7 seconds, is this newly proposed standard asking for 11 seconds of WALK whenever LPI is implemented? Also the Support for this newly proposed Standard seemed to be for two different topics.
39	487	28	Rectangular Rapid Flashing Beacons	NO	YES	Backplates should be a "may" or even a "should" for RRFB installations, particularly where contrast between the RRFB displays and the background view for the approaching drivers can be improved.
40	487	35-37	Rectangular Rapid Flashing Beacons	NO	YES	Change to "The outside edges of the RRFB indications, including any housings "should" not project beyond the outside edges of the W11-2, S1-1, or W11-15 sign that it supplements." Replace "shall' with "should" in the sentence. There are situations where physical constraints or obstructions preclude the ability to contain and place the RRFB units as specified, and such conditions should not prevent installation.
41	508	4-9	Traffic Signals	NO	YES	In-Roadway Lights should be permitted to be used with red colored illumination, at rail or busway crossings, either parallel to and at the edge of the crossing, and/or perpendicular for conflicting turning movements from exclusive turn lanes. Such installations are currently being experimented with in our City and proving to be very effective. LA Metro has received FHWA's approval for the use of In-Roadway Lights to demark the dynamic envelope parallel lines of street-running light-rail trains at signalized intersections. Additionally, FHWA has also approved LA Metro's use of In-Roadway Lights as supplement "RED" limit lines to complement the red indications of traffic signals. These lights have been installed in advance of train tracks and steady "RED" warning lights are used to provide extra layer of safety.
42	512	37	Automated Vehicles	NO	YES	The agency should also develop a maintenance program based on its techinical compantancy to ensure that the minimum functionality of the DAS can be achieved at all times.
43	513	17	Automated Vehicles	NO	YES	In addition, agencies should consider installing machine scan signing such as QR codes or other signage that designed for machine only (not for human) to easily communicate with DAS.
44	513	25-27	Automated Vehicles	NO	YES	DAS technology should also aim to locate, read, and comprehend white and yellow in-road raised reflective markers.
45	514	5	Automated Vehicles	NO	YES	There "should" be a minimun of two identical signal indications for each approach, to serve as a backup in case one goes offline.

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46	706	21	Railroad	NO	YES	Define "UVC", do not cross out "Uniform Vehicle Code".
47	709	50	Railroad	YES	NO	Define specifics of the phrase "nearly so".
48	710	15-20	Railroad Gates - Automatic Gates	NO	NO	Indicate what resources and/or guidelines should be used to find this information if medians were to be used, i.e. AREMA.
49	710	43-44	Railroad - Active Traffic Control	NO	YES	If a highway-LRT grade crossing exists, then appropriate train regulatory signs such as the Crossbuck sign and warning signs such as the Grade Crossing Advance Warning signs shall also be used alongside the active traffic control devices. These two lines contradict what was discussed in Section 8B.03 and Section 8B.06.
50	712	33	Railroad - Exit Gate Control	YES	NO	This information also should be mentionted in Section 8D.03 on lines 15-20.
51	721	5-8	RxR Pre-Signals	NO	YES	Include a statement indicating that there are instances where the pre-signals are located at an intersection, therefore the manual should allow red, yellow, and green circular signal indications on the approach. The straight-through green arrow only applies where there is no intersection.
52	721	21-24	RxR Pre-Signals	NO	YES	Include a statement indication that there are instances where the queue cutter signals are located at an intersection. It should allow red, yellow, and green circular signal indications. The straight-through green arrow only applies where there is no intersection.
53	739	23-25	Bicycles	YES	NO	Add "does not" before "mean".
54	746	22-31	Bicycles	NO	YES	Back-in angle parking has other benefits besides those found when co-installing adjacent to bike lanes. As such, the signage and guidance should be more broad to address not just situations where bike lanes are present.
55	772	42-44	Bicycles	NO	YES	Buffers between parking lanes and separated bike lanes should have a minimum width requirement instead of the ambiguous "to allow for opening doors of parked vehicles". Three feet is recommended as a "shall" or at least a "should" minimum.
56	774	17-18	Bicycles	NO	YES	Current language places numerous barriers that make adding counter-flow bike lanes prohibitive on narrower and lower volume streets. Language should be revised to remove requiring a physical separation where speed limit is 30mph or lower.
57	774	22-23	Bicycles	NO	YES	Current language states counter-flow bike lanes "shall not" be between a general travel lane and parallel parking. This prohibition should be removed to allow for striped counter-flow bike lanes on low-traffic and low-speed streets where space for physical separation may not be available nor be needed.
58	780	24-25	Bicycles	NO	YES	Requesting to better define "longitudinal bicycle pavement marking". Does this mean the longitudinal stripe that defines the edge of the bicycle lane?

Comments to "MUTCD Proposed Figures" Document, "Part 2 Combined Figures" Section

ID: FHWA-2020-0001-0005

Comment No.	Page	Figure No.	Figure/Sign Description	Agree with concept; suggested rewording of text in Comments	Disagree with concept	Comments
1	9	2B-1	Add "Stop Here, Arrow (symbol)" Sign	N/A	N/A	A new sign, displaying "Stop Here, Arrow (symbol)" is needed for locations, such as dirt roads, where it is desired to have a limit line but not possible. The sign display will be similar to R10-6 sign used for signalized intersections. Text will need to be added.
2	11	2B-3	R2-2P, R2-2a, R2-2bP, R2-2cP, R2-3P Signs	NO	YES	The words "SPEED LIMIT" need to be added to the signs to indicate that the number on the signs is the speed limit and not some other number related to the number of trucks allowed or something else. If the words "SPEED LIMIT" are used on a regular speed limit sign, they should also be used for a special speed limit sign.
3	12	2B-4	R3-5 "Right/Left Turn Only" Signs	NO	YES	Add "except bicycles" option to the bottom of the sign, similarly to how "except buses/trucks" are available for turn restriction signs. Incorporating this message into the sign is preferable to adding a separate sign placard for maintenance purposes. Additionally, flexibility should be provided to allow exemptions for certain types of vehicles/users.
4	12	2B-4	R3-7 "Right/Left Lane Must Turn Right/Left" Sign			
5	12	2B-4	Add "R3-7aP" type sign for "Except HOV 2+"			
6	13	2B-4	R3-27 "Thru Traffic Prohibited" Signs			
7	23	2B-12	"No Scooters" Sign	N/A	N/A	A "No Scooters" sign is needed to regulate areas where motorized scooters are prohibited. Text for this sign also needs to be added.
8	23	2B-12	"No Skateboarding" Sign	N/A	N/A	A "No Skateboarding" sign is needed to regulate areas where skateboarding is prohibited. Text for this sign also needs to be added.
9	32	2B-21	"Example of Regulatory and Warning Signs for Mini-Roundabout"	NO	YES	Some type of warning sign or object marker needs to be installed on the mini-roundabout to warn drivers of a fixed object in the roadway. Either Chevron sign with 2 arrows or a Right Arrow warning sign should be shown on the figure.
10	35	2B-24	R7-4 "No Stopping" Sign	NO	YES	A standard sign for "No Stopping" needs to be provided. Many agencies use "No Stopping" rather than "No Standing."
11	35	2B-24	R7-107a, R7-107b "No Bus Parking" Signs	NO	YES	The signs are too confusing. Do they mean that parking for buses is prohibited? Do they mean that parking is prohibited for everyone except buses? This is inconsistent with the format used for the turn restriction signs that use text exclusion rather than symbol. Additionally, does the bus symbol only apply to transit buses? What about paratransit or private shuttle buses? What about tour/sightseeing buses? The sign is unclear. If it is only for transit buses, then additional signs and text about those signs need to be provided.
12	23	2B-12	R5-2 "No Trucks" Signs	NO	YES	An additional sign is needed, perhaps R5-2c, for "No Trucks (symbol), NO EXEMPTIONS." In most cases, there are many exceptions provided for the "No Trucks" sign. However, in some cases where the structural integrity of the road is not safe to allow exceptions (such as to a garbage truck), the sign needs to be able to indicate that the usual exceptions do not apply. This will be safer than a warning sign, or could be paired with an advance warning sign.
13	35	2B-24	R7-113 "No Parking Except While Charging" Signs	NO	YES	This sign should be more specific to Electric Vehicles. What about someone charging a cell phone, laptop, or even a solar vehicle? Add "Electric Vehicles" after "Except" on the sign, so sign would read "No Parking, Except Electric Vehicle charging only." or "No Parking, Electric Vehicle Charging Only." (Please refer to CA MUTCD)
14	36	2B-24	R7-114, r7-114a, R7-114b Signs	NO	YES	All three signs are missing information. They need to say what the time limit applies to, not just "2 HR". The sign needs to read "2 HR Parking". Also, the sign needs to specify the type of vehicle charging. Add "Electric" above "Vehicle."

Comments to "MUTCD Proposed Figures" Document, "Part 2 Combined Figures" Section

ID: FHWA-2020-0001-0005

15	36	2B-24	R7-200 Signs	YES	NO	Provide an option with the number displayed (2) rather than in text only (two). The graphic implies that the time limit for the parking must always be displayed in text format.
16	38	2B-26	R10-1 "Cross Only on Green Ball (symbol)" Signs	NO	YES	This sign should not be used per previous comment that pedestrian signal heads should be required at signalized intersections with legal pedestrian crossings.
17	41	2B-27	R10-30 "Right Turn on Red Must Yield to U-Turn" Signs	YES	NO	This is a useful sign at a signalized intersection. For locations that are stop controlled for the minor street where there is a pattern of the stop sign controlled right turn vehicles colliding with uncontrolled approach vehicles making U-turns, a similar sign "Right Turn Must Yield to U-Turn" would be helpful. Maybe the proposed R10-30 sign could be modified to just omit the "On Red" text?
18	43	2B-29	R12-1, R12-5, R12-6 Signs	NO	YES	A "No Exemptions" placard is needed for when exemptions to certain vehicles from weight limit restrictions cannot be allowed due to safety issues related to the structural integrity of the road.
19	43	2B-29	R12-7, R12-7aP Signs	NO	YES	Sign is unclear whether it is an "Emergency related" vehicle restriction, or it only applies to "Emergency Vehicles".
20	44	2B-29	Need new sign similar to R14-4	NO	YES	The R14-4 signs are used to designate National Network routes; however, "terminal access route" and "terminal" signs are needed to identify which routes are designed to sufficiently accommodate STAA trucks. These trucks are larger than typical trucks and regular "truck route" signs will not guarantee that the roadways can handle vehicles of the STAA lengths. It is much more efficient to post the occassional route as a "terminal access route" and the turnaround points as a "terminal" than to post all the streets in the city as "No Trucks." Refer to CA MUTCD Section 2I.03.54 for info, and for signs G66-56 and M4-6.
21	60	2C-9	Advance Traffic Control Signs	NO	YES	Provide options to use additional warning signs similar to W1-1, W1-2, and W1-3 for other upcoming roadway control options where diversion in advance of that control is advisable, such as "No Trucks", or various turn restrictions, where a picture of the upcoming control sign is in the top of the yellow sign, and the "location of the control" or "XX miles ahead" is provided below the picture.