July 31, 2008

U.S. Department of Transportation
Dockets Management Facility
1200 New Jersey Avenue, SE.
Washington, DC 20590

RE: FHWA Docket No. FHWA–2007–28977

Dear Sir or Madam:

We appreciate this opportunity to provide comments on FHWA-2007-28977 Notice of Proposed Amendments (NPA) on the National Standards for Traffic Control Devices; the Manual on Uniform Control Devices (MUTCD). As a major retailer that operates thousands of privately-owned parking areas open to public travel, Wal-Mart ensures that these parking lots are equipped in a manner that provides for the safe and efficient movement of traffic with the appropriate traffic control devices. Wal-Mart strives to provide signs and markings that comply with the general concepts of the Manual on Uniform Traffic Control Devices (MUTCD). Wal-Mart has reviewed the Notice of Proposed Amendments\(^1\) (NPA) to the MUTCD with great interest due to the scope of the proposed changes relative to traffic control for privately-owned parking areas open to public travel.

Based on its review, Wal-Mart would like to offer the following comments regarding the NPA:

- Wal-Mart supports the basic concept of requiring traffic control devices on private property open to public travel to comply with the MUTCD. It is entirely appropriate that the STOP, YIELD, and other signs used in a retail parking area have the same appearance and meaning as they have on publicly owned roadways and are used in a similar manner. However, Wal-Mart believes that MUTCD requirements should be specific to the needs of the users of the facility that the requirements apply to. As proposed, the application of all MUTCD principles to parking areas without specifically addressing the unique characteristics of those parking areas creates situations where it may be nearly impossible or it cannot be applied in a practical matter for the owners of these parking areas to comply with the MUTCD. This is due to the fact that the MUTCD was written for streets and highways, not large off-street parking areas.

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• Large, off-street, retail parking areas have a number of characteristics that greatly distinguish them from traditional streets and highways. These differences are listed below and they create potential situations where there may be unintended consequences by FHWA in the application of the proposed traffic control device guidelines to parking areas that could create situations that have the potential to reduce safety and/or operational efficiency, because these guidelines were developed for streets and highways, not off-street parking areas. These difference include:
  o Large expanses of paved area without curbs or shoulders (or with minimal curbs and shoulders).
  o Low-speed vehicular movement.
  o No legally established speed limits or advisory speeds.
  o Large numbers of turning and backing maneuvers by vehicles.
  o Significant pedestrian activity.
  o Complex visual environment with great competition for driver attention.
  o Typically well-lit environment at night.
  o Absence of police enforcement of traffic laws or investigations for traffic accidents.

• The MUTCD’s focus, until the change in the FHWA-2005-23182 Traffic Control Devices on Federal Aid and Other Streets and Highways; Standards Final rule, which came into effect on January 16, 2007, (“2007 Final Rule”), was written to address the use of traffic control devices on streets and highways. Most of the language in the MUTCD describes the use of traffic control devices on “roadways.” Although, FHWA extended the definition of the phrase “open to public travel” to “toll roads and roads with shopping centers, parking lots, airports, sports arenas and other similar business and recreation facilities that are privately owned but where the public is allowed to travel without access restrictions,” based on our discussions with FHWA staff and a review of FHWA websites, it appears as if FHWA did not provide any written guidance to the retail community to better understand how the traditional applications of the MUTCD to roadways could be applied to these new, and very different, categories after the 2007 Final Rule became effective. Unfortunately, the NPA also remains silent on how to specifically address the characteristics of large parking areas. It is hard to understand the application of the MUTCD to privately-owned parking areas as a one-for-one application as is done with a road or highway. Aisle or travel areas in a parking lot are not a roadway per se, and many of the MUTCD provisions describing the use of traffic control devices on roadways would not be applicable to parking areas. The MUTCD NPA does not provide any clarification on this critical issue, creating an application with uncertainty and potential liability for owners of parking areas.

• There are a number of problematic applications of the MUTCD NPA guidelines found in the definition of an intersection, a highway, and a roadway and how these definitions relate to the use of One-Way signs. The NPA contains the following definitions for these terms:
  o “Intersection—intersection is defined as follows:
(a) The area embraced within the prolongation or connection of the lateral curb lines, or if none, the lateral boundary lines of the roadways of two highways that join one another at, or approximately at, right angles or the area within which vehicles traveling on different highways that join at any other angle might come into conflict.

(b) The junction of an alley or driveway with a roadway or highway shall not constitute an intersection.

(c) If a highway includes two roadways that are 9 m (30 ft) or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be a separate intersection; in the event such intersecting highway also includes two roadways that are 9 m (30 ft) or more apart, then every crossing of two roadways of such highways shall be a separate intersection (see definition of Median). However, regardless of the distance between the separate intersections as defined herein, where a stopping point has not been designated on the roadway (within the median) between the separate intersections, the two intersections and the roadway (median) between them shall be deemed to be one intersection.

(d) Where a stopping point is designated on a roadway approaching an intersection as defined in Items (a) and (c) above, a vehicle of which any part is legally beyond said designated stopping point shall be deemed to be legally in the intersection.

(e) A vehicle, which is deemed to have or which has legally entered the intersection as defined in Items (a) and (c) above, upon departing said intersection shall be deemed to still be legally in the intersection until:

1. The rear of the vehicle and any attached trailer(s) clears the intersection; or
2. Where a marked or unmarked associated crosswalk is present, the rear of the vehicle and any attached trailer(s) clears said crosswalk.\textsuperscript{2}

- "Highway [or Street]—a general term for denoting a public way for purposes of travel by vehicular travel, including the entire area within the right-of-way."\textsuperscript{3}
- "Roadway—that portion of a highway improved, designed, or ordinarily used for vehicular travel and parking lanes, but exclusive of the sidewalk, berm, or shoulder even though such sidewalk, berm, or shoulder is used by persons riding bicycles or other human-powered vehicles. In the event a highway includes two or more separate roadways, the term roadway as used herein shall refer to any such roadway separately, but not to all such roadways collectively."\textsuperscript{4}

- There is nothing in these definitions to indicate whether a privately-owned, off-street parking area would always include a roadway, street, highway, or intersection.


\textsuperscript{3} Id. at 606.

\textsuperscript{4} Id. at 608.
Furthermore, these definitions cannot be easily applied to a large parking area for the following reasons:

- There is no right-of-way in a large parking area.
- Any curb line in the parking area typically defines the outside border of the parking area. Individual parking lot travel areas are not always defined by curb lines. The markings defining parking stalls and end islands are the only items that define the travel portion of a parking area. This is not recognized by the MUTCD. This makes it difficult to precisely define the limits of a roadway, highway, or travel way within a parking area. In fact, Wal-Mart believes that parking areas are not a roadway, highway, or travel way. Throughout these comments, we use the term “travel area” to describe the portions of a parking area that are used for vehicular movement.
- Parking areas typically have parking stalls, not parking lanes as used in the roadway definition. The difference between parking stalls and parking lanes is important due to the manner in which each defines the travel boundaries. At present, the MUTCD NPA is silent on the issue of 90° or angled parking, which is the predominant form of parking arrangement in large lots, and on the issue of off-street parking.
- The intersection definition specifically indicates that alleys/driveways intersecting with roadways are not intersections. However, in the absence of specific language addressing parking area characteristics, there is no basis for determining whether the point where the travel areas and parking aisles meet within a parking lot constitute an actual intersection as defined by the MUTCD.

- Due to the uncertainty created by the lack of specific parking area guidelines and definitions in the NPA, the application of specific elements of the NPA to parking areas is exceptionally difficult. For example, it is possible that some may interpret the definitions such that the location where each parking aisle intersects with a travel area or ring road constitutes an unsignalized intersection. For those parking aisles that have one-way movement (often the case in large parking areas), NPA Section 2B.47 would require One-Way signs to be installed on the near right and far left corners of the intersection. This would result in a series of One-Way signs at each end island and along the length of the sidewalk in front of the store. Such a requirement is inappropriate for a parking area, and would create visual clutter, confusion for the parking area users and a potential safety risk. However, based on the current draft of the NPA, failure to install such signs could result in non-compliance with the MUTCD and subject the parking area owner to liability in the case of an accident occurring in the parking area.

- In its current form, the MUTCD NPA addresses parking in a very finite manner, parallel parking located on a roadway (on-street parking). If the intent of the FHWA is for the MUTCD to apply to privately-owned parking areas, then the MUTCD would also need to

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be modified to add specific guidelines for off-street parking areas. As such, it would be critical for retail organizations to be able to participate in this process and ensure that any draft guidelines be vetted sufficiently with the community before the agency moves to the publication in a Final Rule.

- These examples are but a few of many where the literal application of MUTCD principles (which were developed for street and highway applications) to privately-owned, off-street parking areas creates a situation where compliance with MUTCD guidelines would be nearly impossible or cannot be applied in a practical manner based on the way the NPA is currently written.

- We firmly believe the safety of the public is of the utmost importance and it is important that the existing NPA language requiring such compliance should not be included in the Final Rule until such time as FHWA can develop a new part of the MUTCD to include language that specifically addresses the needs of off-street parking areas. Such changes would need to:
  - Recognizes the unique characteristics of large, off-street parking areas, particularly those associated with retail establishments.
  - Identifies the specific traffic control device needs of off-street parking areas, including angled parking, parking aisle right-of-way control, pedestrian movement, one-way and two-way traffic flow, and crashworthiness of sign supports.
  - Provide traffic control device guidelines for off-street parking areas that are consistent with the unique characteristics of these types of facilities.
  - Provides exclusions/exemptions for specific traffic control devices that are inappropriate for use in a parking area, but which the MUTCD requires or recommends for street and highway applications (i.e., One-Way signs, STOP signs) or the application and placement of such devices (i.e., lateral offset requirements for traffic signs, retroreflectivity requirements).

- Furthermore, any new language related to traffic control for off-street parking should not be published in an MUTCD Final Rule unless it is first published as a new NPA or a supplemental NPA (SNPA). This would provide owners of such facilities with the ability to evaluate the newly proposed guidelines prior to adoption. We would be happy to assist the FHWA in developing such language for future consideration.

In this vein, we would respectfully offer the following comments that are specific to the use of traffic control devices in off-street parking areas and suggest that these comments serve as a starting point for developing the new guidelines that would be in a new MUTCD part.

- The traffic control needs of parking area users, while similar in concept to road users, differ in the specifics of the application. Factors such as sign lateral offset, crashworthiness, application of specific signs and markings, and other factors are different in an environment where 25 mph is a high speed. The MUTCD should
recognize these differences and provide specific guidance or exceptions in all individual sections indicating whether the provisions of each section apply to parking areas.

- Definitions should be revised to reflect the application of traffic control device principles to parking areas. At a minimum, these definitions should address definitions for a roadway, highway, and intersection within a parking environment and distinguish between a road user and a parking area user. New definitions that likely need to be added to the MUTCD include parking stall, parking area travel lane, parking aisle, and parking island.

- The MUTCD currently allows the use of the STOP word pavement marking at the end of parking aisles without the use of a STOP sign. However, with the application of the MUTCD to private parking areas, a similar change needs to be made for yield applications. YIELD signs are commonly used in parking areas at pedestrian crossing areas. The MUTCD should allow the YIELD word pavement marking to be used without a YIELD sign in parking areas.

- Because of the complexity of the visual environment and the search patterns associated with drivers' visual activity in parking lots, signs need to be located at the edge of travel areas. It is not appropriate to require parking lot signs to have a lateral offset of 12 feet from the edge of the travel area – doing so would place these signs in a location where they would likely not be seen by parking area users. Instead, they should be allowed to be placed at the edge of the travel area. In addition, signage can obscure drivers' views of pedestrians and vice versa. As such, the MUTCD should be revised for parking lots to allow signs to be placed at the edge of the travel area in off-street parking areas.

- Pavement marking text, symbols, and arrows can be smaller on off-street parking areas than on streets and highways due to the slower speeds in this environment. The MUTCD should be revised to allow smaller words, symbols, and arrows in off-street parking areas.

- Because of the frequent spacing of parking aisles, a single solid yellow line is often used in parking areas to separate traffic traveling in opposite directions. The NPA states “A single solid yellow line shall not be used as a center line marking on a two-way roadway.” Even if a travel area in a parking lot is not considered to be a roadway, this language discourages the use of a single solid yellow centerline. An exception should be provided to allow the single solid yellow centerline in parking areas because the use of a typical 10-30 foot broken line pattern does not provide sufficient delineation for a low-speed parking area with frequent turning maneuvers and closely spaced parking aisles. Nor does a double solid yellow line work well because of the need to pass vehicles that have stopped to drop off passengers or that are waiting in the travel area to pick up a passenger. While such actions might be illegal on a public road, they are common in a

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parking area and there is no enforcement option available to the owner to prevent such action.

- Volume guidelines contained in the MUTCD associated with roads or highways are understandably not applicable to parking areas. Retail stores can generate significant volume in a parking area during a day, however it is unlikely they meet the threshold of what for a road or highway, and these volumes can vary significantly throughout the year. The variability in volumes and the differences in traffic flow between a street/highway and parking area make volume-based criteria inappropriate to apply to parking lots. The MUTCD should be revised to exempt parking areas from all volume-based criteria. As an alternative, the FHWA could develop new volume criteria that are specific to parking areas (and which have been developed based on actual data from off-street parking areas).

- Parking areas do not have speed limits or advisory speeds. As such, MUTCD criteria that are based on speed cannot understandably be applied to parking areas. The MUTCD should be revised to exempt parking areas from all speed based criteria or new speed criteria should be developed for off-street parking areas (based on research conducted at such facilities).

- Signs installed in parking areas have a higher probably of being impacted by vehicles than would typically occur in a roadway environment. In addition, retailers responsible for these parking areas do not have maintenance staff as public agencies do. Protecting signs in parking areas from being knocked down becomes an important issue rather than the need to make them crashworthy. Furthermore, there is no research to indicate that the sign supports that have been found to be crashworthy in a highway environment will function safely in an environment where collisions are likely to occur at speeds well below 20 mph. The MUTCD should be revised to not require crashworthy sign supports in low-speed parking areas.

- We have found that yellow markings are preferable for defining parking stalls in large parking lots because of the improved visibility of the markings. Wal-Mart has also found the yellow markings to also be more durable. Accordingly, the MUTCD should be revised to allow yellow or white markings to be used to define parking stalls in off-street parking areas.

- The application of STOP signs in proposed Section 2B.06 does not specifically address the use of STOP signs in parking areas. Language should be added to this section that specifically identifies the ability to use or not use STOP signs as appropriate in a parking

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area. The same comment applies to Section 2B.09 and the application of the YIELD sign in off-street parking areas.\(^9\)

- Due to the unique nature of pedestrian activity in front of large retail stores, pedestrian treatments in parking areas are different from that used on traditional roadways. For example, it is not uncommon to have crosswalks that are 50-100 feet deep or more and encompass more than one parking aisle. Such large crosswalk areas require unique marking patterns to define the area. In particular, the MUTCD should recognize that the traditional crosswalk marking consisting of two transverse lines is not sufficient when the two lines are separated by a long distance (such as 50 feet or more). The MUTCD should be revised to indicate a maximum distance between transverse crosswalk lines. Crosswalk markings exceeding this distance would require longitudinal or diagonal marking treatments between the transverse lines. Furthermore, these markings must be designed and applied in a manner that does not create a slipping potential for pedestrians, particularly when the pavement is wet. Wal-Mart has found that 4-inch diagonal striping with large spaces between the lines works well to define the crosswalk area. However, this treatment does not comply with the MUTCD. The MUTCD should be revised to provide exceptions to crosswalk marking requirements for privately owned parking areas.

- A recent revision of the MUTCD requires that signs provide minimum levels of retroreflectivity\(^10\) and it is our understanding that the FHWA intends to require markings to also provide minimum levels of retroreflectivity. Because retail parking areas are typically well-lit at night, the MUTCD should be revised to exempt off-street parking areas from requiring retroreflective signs and markings, or at least exempt off-street parking from meeting minimum retroreflectivity requirements, as such requirements were based on performance in the highway environment, not in a parking area.

- Lighting is a common feature of off-street parking areas. The light supports and bases are typically located between parking aisles. The typical assembly consists of a light pole mounted on a concrete base that is 12-24 inches above the pavement surface. This is another example of the need to define parking lots in a different manner than a roadway, highway, and street, without that clarification, such installations can be interpreted as being in a roadway and subject to a range of MUTCD criteria regarding crashworthiness and marking of hazards in the roadway. The MUTCD should be revised to clearly indicate that lighting in parking areas is not a traffic control device and is not subject to any MUTCD requirements. The MUTCD should also indicate that there is no requirement to mark the base as an obstruction or provide markings in the vicinity of the lighting supports.

\(^9\) Id. at 630.
In addition to the specific suggestions related to off-street parking areas listed above, the MUTCD should be revised to include the following statement:

- "Privately owned parking areas exhibit many characteristics that distinguish them from streets and highways. Accordingly, owners of privately-owned off-street parking areas may select and install traffic control devices in a manner which deviates from the provisions of this Manual if such deviations are based on an engineering study. Such deviations should recognize that travel areas within the boundaries of parking lots shall not be considered to be roadways, streets, or highways. All traffic control devices used in parking areas shall have the same color and meaning as those used on public roadways."

Understanding the inherent differences between parking lots and roads and highways, and the need for the NPA and the FHWA to provide analogous safety assessments for parking lots, the NPA should provide for a different compliance date for private property owners after revised standards have been provided to the retail industry for review. Replacing existing signs, relocating signs, installing new signs, and re-striping parking stalls and other markings is a time intensive process and can be more efficiently done once clarification has been provided to the industry.

We respectfully submit these comments and look forward to working with FHWA on these matters. We believe that many of the industries who are affected by this NPA as a result of the 2007 Final Rule may be unaware of these requirements and FHWA should extend a significant amount of time to educate these industries. We believe that traffic control devices should be used in off-street parking areas in a manner that provides for the safety of the public and we try to provide traffic control devices in its parking lots in a manner that complies with the intent of the current MUTCD. However, the changes proposed in the NPA on retail parking lots are far-reaching in their impacts both in application and overall impacts on the companies who run them. We strongly recommend that the changes proposed in Section 1A.07 of the NPA should not be published in a Final Rule until such time as the details associated with specifics of application to parking areas and the impacts of such application can be addressed. If the FHWA develops new language addressing MUTCD application to off-street parking areas, retailers such as Wal-Mart should have an opportunity to work with the agency prior to it being published in a Final Rule. As we have detailed in this submission, we would like to work with FHWA to develop new language and a new part for the MUTCD that relates to the use of traffic control devices in privately owned parking areas.

Please contact me if we can be of any assistance, I can be reached at 479.204.0218

Sincerely,

Tom Richards
Tom Richards, P.E.
Engineering Team Leader