

# Special Commission on Micromobility

*October 14, 2025*

# Today's Agenda

**Meeting Theme:**  
Recommendation Potluck

1. **Call to Order & Agenda**
2. **Gallery Walk & Polling Exercise**
3. **Vehicle Classification Presentation**  
*Niren Sirohi, RMV Chief Operating Officer*
4. **"Leftovers" Reflection & Discussion**
5. **Next Steps & Assignments**

# **Potluck Polling Exercise**

## **Instructions**

# Gallery Walk & Polling Instructions

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## We read through over 100 recommendations

- We've merged duplicates
- We've consolidated similar recommendations
- We've removed a few that were outside of the scope
- We've removed a few that are covered by the draft classification schema and will be discussed in that portion of the meeting
- We've replaced the word *accident* with **crash**

# Gallery Walk & Polling Instructions

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1. Posted around the room are Commission-member recommendations
2. You each have a set of stickers to allocate to posted recommendations. You can only place **one sticker per recommendation**. You cannot stack your stickers on a singular recommendation. You do not have to use all your stickers.
3. You each have **two “disagree” stickers** to place should you **strongly disagree** with a recommendation. You do not have to use your down-vote stickers. They are **not vetoes**.
4. On some of the papers you'll see a **+2 or +5** which signifies that similar recommendations were submitted and combined. It does not count towards stickers.
5. You will have 25 minutes to read, walk, and assign your stickers

*Later in the agenda we will surface topics for further discussion based upon polling*

# **Draft Vehicle Classification Framework Recommendation**

*Developed in collaboration with  
the University of Massachusetts Transportation Center*

*Niren Sirohi, Chief Operating Officer, RMV*

# Classification Framework – Objectives

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- Simple and Intuitive
- Risk-Based
- Future-Proof
- Field-Ready
- Action-Oriented
- Legally Grounded
- Clear Definitions

# Classification Framework – Core Schema

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- Our classification framework is anchored in **maximum speed** (findable, enables field identification and enforcement, supports tier-based regulation), since higher speed directly correlates to crash risk and injury severity.
- Within each speed tier, devices are grouped into **categories by type and function**.
- This two-step structure makes it easy to understand, apply, and extend to new devices.



# "Speed" is not a one-size-fits-all term

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Given that two of our goals for the framework are **future-proof** and **clear definitions**, we suggest thinking about speed in a nuanced way. For today, let's use these terms:

- **Maximum Assisted Speed** — for e-bikes and any device with electric/motor assist — the highest speed at which the motor provides propulsion on level ground with factory settings
- **Maximum Design Speed** — for fully motorized devices (no pedals) — the highest speed the device is designed to reach on level ground under its own power in factory settings.
- **Typical Operational Speed** — for human-powered only devices — the expected speed on level ground in ordinary use, not including downhill coasting

# Classification Framework – Applications

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- **Operational Requirements** – licensing, registration, inspection, enforcement
- **What needs to change** – Legal and other implications: leverage existing statutes, suggest targeted changes, identify gaps
- **Future Work** – areas requiring further analysis, stakeholder engagement and alignment

# Core Schema

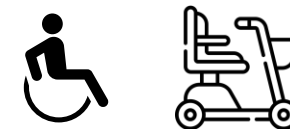
## Tier 0

Maximum speed: **0-20 MPH**

**0.A** Human powered micro-mobility(MM) devices  
(e.g., skateboards, bicycles, scooters)



**0.B** Mobility aid devices



**0.C** Powered\* cycles, scooters and other MM devices



\*Motors and/or Power can be gas or electric or a combination

# Core Schema

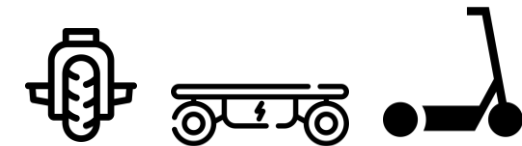
## Tier 1

Maximum speed: **21-30 MPH**

**1.A** Class 3 e-bikes  
(up to 28mph)



**1.B** Powered\* MM Devices  
(e.g., scooters, unicycles, hoverboards, skateboards)



**1.C** Motorized Bicycles (aka mopeds) 2 or 3 wheels



\*Motors and/or Power can be gas or electric or a combination

# Core Schema

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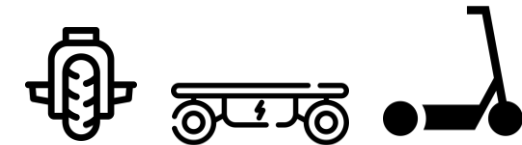
## Tier 2

Maximum speed: **31-40 MPH**

- 2.A** Powered\* Cycles (including class 4 e-bikes)--  
Limited Use Motorcycle



- 2.B** Powered\* MM Devices  
(e.g., scooters, unicycles, hoverboards, skateboards)



\*Motors and/or Power can be gas or electric or a combination

# Core Schema

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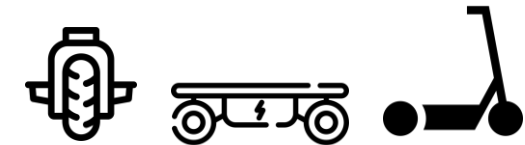
## Tier 3

Maximum speed: **41+ MPH**

- 3.A** Powered\* Cycles (including e-bikes)–  
Motorcycles (2 or 3 wheels)



- 3.B** High Speed Powered\* MM Devices  
(e.g., scooters, unicycles, hoverboards, skateboards)



\*Motors and/or Power can be gas or electric or a combination

# Operational Requirements

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	Tier	Helmet	Age 16+	License/ Education	Insurance	RMV Registration	State Micro-ID /Decal
<=20 MPH	<b>0.A:</b> Human powered	■ <sup>†</sup>					
	<b>0.B:</b> Mobility aid						
	<b>0.C:</b> Powered MM	■					
21-30 MPH	<b>1.A:</b> Class 3 e-bikes	■	■	?			■
	<b>1.B:</b> Powered MM	■	■	?			■
	<b>1.C:</b> Motorized bicycle (moped)	■	■	■ Class D		■	
31-40 MPH	<b>2.A:</b> Limited use motorcycle	■	■	■ Class M	■	■	
	<b>2.B:</b> Powered MM	■	■	■ Type ?	■		■
>40 MPH	<b>3.A:</b> Motorcycles	■	■	■ Class M	■	■	
	<b>3.B:</b> Powered MM*	■	■	■ Type ?	■		■

<sup>†</sup> Bicycle Helmet Law applies to riders ages 16 and younger

\*Need to follow the motorcycle pathway i.e. FMVSS, VIN etc or else illegal on public roadways

# Travel Allowances

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	Tier	Sidewalks <sup>‡</sup>	Bike Lanes <sup>‡</sup>	Shared Use Paths <sup>‡</sup>	Roadways	Limited Access Highways (>40 MPH)
<=20 MPH	<b>0.A:</b> Human powered	■ *	■ *	■ *	■ *	
	<b>0.B:</b> Mobility aid	■	■	■	■	
	<b>0.C:</b> Powered MM		■ *	■ *	■ *	
21-30 MPH	<b>1.A:</b> Class 3 e-bikes				■	
	<b>1.B:</b> Powered MM				■	
	<b>1.C:</b> Motorized bicycle (moped)				■	
31-40 MPH	<b>2.A:</b> Limited use motorcycle				■	
	<b>2.B:</b> Powered MM				■	
>40 MPH	<b>3.A:</b> Motorcycles				■	■
	<b>3.B:</b> Powered MM				■	

\*Follow bike rules

‡ Local authorities and state agencies may adopt additional rules



# Device Requirements

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	Tier	UL Electrical Standard	UL Battery Standard	Lights, Brakes, Horn <sup>†</sup>	Motorcycle Equipment	Speedometer	Stop and Turn Signals
<= 20 MPH	<b>0.A:</b> Human powered	n/a	n/a	■			
	<b>0.B:</b> Mobility aid						
	<b>0.C:</b> Powered MM	UL 2849	UL 2271	■			
21-30 MPH	<b>1.A:</b> Class 3 e-bikes	UL 2849	UL 2271	■ *		■	■
	<b>1.B:</b> Powered MM	UL 2272				■	■
	<b>1.C:</b> Motorized bicycle (moped)	UL 2849		■ *		■	■
31-40 MPH	<b>2.A:</b> Limited use motorcycle	UL 2849	UL 2271	■	■	■	■
	<b>2.B:</b> Powered MM	UL 2272				■	■
>40 MPH	<b>3.A:</b> Motorcycles	UL 2849	UL 2271	■	■	■	■
	<b>3.B:</b> Powered MM	UL 2272				■	■

<sup>†</sup> Tier 0 vehicles require a bell instead of a horn and reflectors in addition to lights

\* Follow the federal motor vehicle guidelines for bicycles (eCFR Title 16 Chapter II Subchapter C Part 1512)

# State Micro-ID Decal (Concept)



## BENEFITS

- Light-touch identifier – not a license plate or VIN
- Binds device to applicable rules for tier and category
- Quick roadside verification (tier, compliance) and enforcement
- Enables real compliance programs
- Tamper-evident; reduces counterfeits and mismatched tiers
- Supports safety & usage data collection
- Flexible issuance: POS, self-service, fleet API



## CONCEPT STAGE – NEEDS DEVELOPMENT

Recommend creating advisory task force to:

- Design e-registration process (privacy, data security, renewal)
- Clarify roles: dealers/manufacturers vs RMV
- Define renewal & compliance cycle
- Evaluate tech standards (QR/NFC, UL docs, tamper features)
- Design roadside enforcement process and penalties

## Appendix: UL Standards

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- **UL 2849 (e-bike “system” safety):** A system-level standard that evaluates an e-bike’s entire electrical system working together — battery, motor/controller, wiring and the specific charger — for fire/electrical hazards. It’s certified by an OSHA-recognized NRTL (e.g., UL, Intertek, SGS) and includes construction + test requirements and required markings.
- **UL 2271 (battery pack safety for LEVs):** A pack-level standard for lithium-ion battery assemblies used in light electric vehicles (including e-bikes/scooters). It focuses on the battery pack’s design, BMS, abuse/thermal tests, production checks, and labeling. It’s distinct from automotive EV batteries (UL 2580).
- **UL 2272** applies to **personal e-mobility devices** (e-scooters/hoverboards, etc.) at the device electrical system level.
- Many jurisdictions pair **UL 2272 for scooters** with **UL 2271 for their batteries**, and **UL 2849 for e-bikes**.

# Starter Questions for the Commission

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1. Does the concept of using the vehicle's speed achieve the goals of being legible, ensuring future-flexibility, and being actionable? **[5 min]**
2. What about the criteria associated with each tier would you like to discuss (license, helmets, where it can operate, etc.) **[20 min]**

# **The "Leftovers"**

## **Reflection & Discussion**

# Rules for This Dinner Table

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We've collected all the recommendations that **got at least 10 stickers**. Those will form our "priority recommendations" moving forward. We will circulate a document with those recommendations before the next meeting for additional editing by the Commission.

For any recommendation that got between 5–9 stickers; **or** had two disagree stickers as well as some stickers, we will **spend ~1 minute discussing** whether to include it as a "secondary recommendation".

## **Next Steps & Assignments**

# Next Steps

**October  
14**



**January**



*Food for Future Thought  
Final Recommendations  
Review and Discussion*

*Recommendation  
Potluck  
(in-person)*

*Report  
Submitted*

*Individual draft  
recommendations for  
October meeting*

*Review Draft  
Recommendations*




*Review &  
Comment on  
Draft Report*

*State Agencies  
Review of Draft  
Report*

*Report  
Finalized*

**November 6**  
Thursday 1p-3p  
*Held on Zoom*

**Key**

-  Meeting
-  Milestone
-  Asynchronous Task



# Commission Member Assignments

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## **Review priority recommendations sheet.**

We will circulate a summary of the recommendations that received at least 10 stickers. Please review it and provide any feedback to the wording you may have as it will be the basis of what goes into the report.