### code talkers



# Scooting Around the Codes on Campus

By Clint Lord

ne of the biggest trends campuses are seeing is the emergence and use by students of motorized-scooter rental services. These motorized scooters are suddenly found all over campus malls and public access points around universities. The scooters are unlocked with mobile apps and can be left wherever the rider finishes using them.

At Arizona State University (ASU), the problem became an unexpected nuisance very quickly, and we had to react rapidly to gain control of the rising tide of scooters showing up within campus boundaries. One of the many problems the university was faced with was that the scooters were being left everywhere, causing access issues into buildings and on public malls. There were also several fire code and fire egress issues that presented themselves with this new trend. And, we started seeing students charging scooters in dorm rooms to make extra income by using the charging model these scooter companies employ to keep their scooters charged and available.

#### CODES AND SCOOTERS

There are significant concerns with scooters and how they relate to the National Fire Protection Association (NFPA) codes:

NFPA 1, Section 11.1 addresses electrical safety. Relocatable power taps might be used to add extra capacity to the receptacle; however, they must be connected directly to a permanently installed receptacle. "Daisy-chaining" the power taps is not permitted, and should not be done to plug in multiple scooters.

Extension cords must also be plugged directly into an approved receptacle, power tap, or multiplug adapter, and can only serve one portable appliance.

## NFPA 1, Section 18.2 addresses fire department access.

It requires fire department access roads be provided for every facility, building, or portion of a building constructed or relocated. The required width and clearance of the access cannot be obstructed in any way, including the parking of vehicles. It would be a good practice for scooter riders to be aware of fire department access and not drop off scooters in fire lanes and other access areas.

#### NFPA 1, Section 14.4.1 requires means of egress be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

Means of Egress. An occupant's means of egress from a building includes exit access travel, the exit, and then the exit discharge. Exit discharge takes occupants from their exit to the public way (usually outside the building). Scooters may be piling up near building's exterior doors or in a path of exit discharge unknown to the rider.

#### NFPA 1, Chapter 52 is constantly evolving to address larger type energy storage systems and the storage of batteries.

Lithium-ion battery fires are something that many industries continue to address and the electric scooters are no different. Lithium-ion battery fires are unique and cannot and should not be extinguished by an untrained consumer. They can cause problems for firefighters as well.

#### Americans with Disabilities Act (ADA) Issues.

The motorized scooters are impeding access throughout sidewalks, building entrances, hallways, and ADA ramps.

#### MITIGATING THE PROBLEM

ASU started meeting with the scooter companies to come up with a solution to the issues that have been plaguing the campus since these motorized scoot-

ers first started appearing there. These meetings were productive at first, but the university quickly realized the scooter companies were not able to fully control the users, and the problems persisted on campus.

After giving these companies a few months to work out a solution, ASU decided it was time to act, and banned the scooters from the interior core of campus. The university realized that this would not alleviate all the issues, but has implemented a few other solutions to mitigate the other problems:

- First, painted parking areas were created around the campus borders for the scooters to be parked in.
- Second, the Parking and Transit group on campus started to confiscate any scooters that were not parked within the designated areas. The companies were able to retrieve their scooters after the fines were paid.

#### FAR FROM AN ISOLATED PROBLEM

Since the university has implemented the ban, two of the scooter companies have started to fine their users if a scooter is left in an unauthorized area. They are also trying to implement a geofence solution that would slowly shut off the scooters once they enter the geofence borders. The companies hope that if they can get these solutions in place, universities across the country will stop banning their use and allow them back on campus.

In January 2019 the local municipality passed a license agreement to regulate scooter and dock less bike companies. The licensing agreement addresses safety, parking and staging, operations, data sharing and fees. Since the implementation of the license, a few of the scooter companies decided to remove their scooters from the city. Others have stayed to ascertain if the licensing fees are still a viable and profitable solution. This has greatly reduced the number of scooters on the ASU campus.

ASU is not alone, as this has been an issue for many universities and municipalities. Thankfully, the different building code authorities are working hard to introduce and implement new codes to keep our campuses safe. (1)

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