

Attachment E – Geofencing Research Findings

With the rising popularity of dockless micro-mobility vehicles, geofencing has become a tool to curb random parking by users. Geofencing is used by operating companies to manage micro-mobility vehicles through the global positioning system (GPS), radio-frequency identification (RFID), wireless fidelity (Wi-Fi), or other cellular data functions by triggering a pre-programmed action when a mobile device or RFID tag enters or exits a geographical location, known as a “geofence”.

In order to use geofencing as a management tool, an administrator or developer must first establish a virtual boundary around a specified location in GPS- or RFID-enabled software. When an authorized device enters or exits the specified boundary of a geofence, it will trigger a programmed response.

Geofencing boundaries are most commonly demarcated within a mobile application, and users need to opt in to location services for the geofence to work. For example, users have to download an application (“app”) that will deliver information about the service which is managed by the operating company.

As part of LADOT’s dockless mobility pilot program, operating companies are required to integrate with the city’s MyLA311 system, which is used by the public to report incorrectly parked scooters. LADOT also requires operating companies to close out outstanding MYLA311 service request tickets. Operating companies are required to respond to open service requests within a two (2)-hour window. Failure to respond to open service requests within the prescribed time frame may result in revocation of their permit or a reduction of existing fleet size.

Metro staff spoke with three (3) cities in Los Angeles County and four (4) agencies outside of LA County regarding their experience with geofencing. While it is too early for city staff to give an opinion about their experience, they voiced concerns about operator accuracy in setting up the vehicles for geofencing and managing them. Since operators may not geofence every vehicle accurately, there are situations more vehicles littered at the locations than the system indicated. All of the comments from cities included the importance of having a strong enforcement policy and dedicated personnel for carrying out the duties of enforcement in the field. Table below details responses from the agencies.

City	Geofencing
Los Angeles, CA	The City reserves the right to determine where vehicle parking is prohibited or to create geo-fenced stations within certain areas where vehicles shall be parked. The City will make this information available via the check-parking API or alternative method.
Santa Monica, CA	In Santa Monica, companies like Bird and Lime introduced a geo-speed-limiting feature which allows the company to instantly slow a scooter’s speed while within the boundaries of a geofenced site. Once the geo-speed-limiting feature is activated the operating

	company sends a push notification to the user's smart phone, notifying the rider when he or she has entered a reduced speed zone.
Long Beach, CA	Each vendor will be allowed to deploy an initial 150 scooters during the pilot program and will be required to identify, geo-fence, and physically mark locations for placement of the scooter fleet during initial deployment and daily rebalancing. Each operator will be required to geo-fence their designated operating area for the purpose of nightly charging and re-deployment. In addition, operators will be required to use city-approved floor graphic decals to mark drop zones for scooters located in the public right-of-way that also must be geo-fenced on the vendor's app.
Austin, TX	Austin requires operating companies to build in the capability to let users know when they have parked in a geofenced, city-approved parking area with the use of the app.
Denver, CO (RTD)	The agency has requested that operators employ geofencing to emphasize specific areas where parking and riding is prohibited or where parking is encouraged.
Minneapolis, MN	If officials see patterns of parking violations in certain areas, they could impose additional restrictions on where scooters can be left, or "geofencing".
San Antonio, TX	The San Antonio City council has discussed building more parking spaces for scooters and using GPS to keep alert riders about being in restricted areas.