## Parking Technology proposals

The goal of parking management is to make sure that parking spaces are used efficiently and equitably so that there are spaces available as needed, and the best way to achieve this is by pricing parking according to demand. People are encouraged to use alternatives to driving to avoid the parking fee, but people who need to park are able to find a space. Accomplishing this requires setting parking fees in a way that is adaptable and flexible, allowing different fees at different locations at different times. For more details look at writings and videos by Donald Shoup:

<a href="https://www.youtube.com/watch?v=Akm7ik-H\_7U">https://www.youtube.com/watch?v=Akm7ik-H\_7U</a> (short but relevant part at the end) <a href="https://www.youtube.com/watch?v=3HYY4W4Zsuw">https://www.youtube.com/watch?v=3HYY4W4Zsuw</a> (long but worth watching)

Charging for parking does not require installation of parking meters or other devices. Singapore has been using punch-out parking coupons for 40 years and they've worked well. Coupons are sold at shops and public offices and drivers have kept a supply on hand (see images).



Now Singapore has added a parking app for smart phones which allows users to pay for parking by keying their license number into the app (this can be remembered by the

smart phone so you don't have to key it in every time) and entering the intended parking time and the location (this could be automatic with the phone's location feature). This information goes into a central database available in real time to parking monitors as they check vehicles, or they could skip checking blocks where every space has been registered on the app. The app can alert the driver 10 minutes before the time expires and the driver can extend it, within the legal maximum limit, from wherever they are. Drivers can terminate their parking early and get a refund on their account for time not used. The app could also allow drivers to locate an available space, though this might not be necessary once the rates have been optimized.

A system like this, using coupons and/or a smart phone app, could allow charging for street and lot parking anywhere in the city, with rates and maximum time limits varying by day, time and location as needed. I am not proposing the fees change in real-time as spaces fill up, but rather that they are set based on usage statistics and then changed every year or so as needed to optimize the system. A custom app could be a good project for OSU students and could lead to a new local startup (there are several classes in EECS which cover app development - see Rob Hess). Alternately, there are several apps currently available, some of which may be directly usable by Corvallis.

Setting and collecting appropriate fees for parking on and off streets in Corvallis could be a major help for drivers and residents, as it would make sure parking is available when needed but would also encourage drivers to use alternative transportation.

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