Managing Curb Parking

A key to increasing housing affordability, ending homelessness, and reducing congestion and pollution

Presented by Patrick Siegman
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Definition: Minimum parking requirements are government regulations that specify the minimum number of parking spaces that must be provided for every land use.

They are intended to ensure that cities have more parking spaces than they would if the matter was left up to individuals choosing freely.
Palo Alto, CA – parking requirements adopted in 1951
What is the purpose of minimum parking requirements?

According to the zoning codes:

- **Palo Alto**: “to alleviate traffic congestion”
- **San Diego**: “to reduce traffic congestion and improve air quality”
- Generally, *to prevent spill-over parking problems*
Cruising for parking, 1939

The pattern of “cruising for parking” was observed in Chicago by recording the license plate numbers of vehicles that repeatedly passed through a busy intersection during the morning rush hour.
An economically illiterate theory for addressing traffic congestion

1. Set minimum parking regulations to ensure that virtually all destinations have excess spaces, even when parking is given away free, even at isolated locations with no transit.

2. Prohibit or discourage charging for parking.

3. Prohibit curb parking.

4. Convert curb parking into more traffic lanes.

Result: no more cruising for parking, more auto capacity...but there were unintended consequences.
Minimum Parking Requirements - Source

Example: Office Parks
ITE Parking Generation Report
Peak Occupancy Rates, in spaces per 1000 sf of building area:

- Lowest: 0.94 spaces
- Average: 2.52 spaces
- Highest: 4.25 spaces

Typical requirement: 4.0 spaces/1000 sf
1.3 sq. ft. of asphalt per sq. ft. of building area

Typical office: 4 parking spaces per 1000 sq.ft.
Typical Minimum Parking Requirements
(Milpitas & San Jose, CA)

Office: 4 spaces / 1000 square feet of built space

Hotel: 1 space / room

Retail: 4 spaces / 1000 square feet of built space

High-speed arterial
There’s a light rail station just beyond the left edge of this photo.

...It’s one of the worst-performing light rail systems in North America.

...And the nearby freeway is one of the most congested.

Office: 4 spaces / 1000 square feet of built space

Hotel: 1 space / room

Retail: 4 spaces / 1000 square feet of built space
Unintended Consequences of Minimum Parking Regulations

Minimum parking regulations require excess spaces even when parking is free, even at isolated locations with no transit.

Cost of parking is hidden in the price of other goods & services
- Higher rents
- Pricier goods
- Higher Taxes

Parking appears free, resulting in higher parking demand, more driving, more congestion, more pollution

We all pay for more parking and bigger roads
Unintended consequences: less housing, more expensive housing & lower land values

1961: Oakland’s first parking requirement

- One space per unit for apartments

- Construction cost increases 18% per unit

- Units per acre decreases by 30%

- Land value falls 33%
MANAGING CURB PARKING & REMOVING MINIMUM PARKING REQUIREMENTS
Three Parking Management Reforms

1. Charge the right prices for curb parking

2. Return the parking revenue to the blocks where it is generated, to pay for public services

3. Remove minimum parking requirements
No Parking Requirements on Main Street

Downtown Ventura
Mobility & Parking Plan
Ventura’s Parking Benefit District

Devotes parking revenue to district where funds raised
• Meters installed on premium spaces only (318 of 2500 total)
• Policy: set rates at *lowest* rate needed to achieve 1-2 available spaces on every block
• *No time limits*

**Results**
• Current rates: $.50 to $1/hour
• Current hours: 10am - 9pm, daily
• Revenue: $530,000 annually
• Funds new police officer & 9 police cadets, better lighting, free public Wi-Fi
• Crime down 40%
“Parking Management That Actually Manages Parking”

TUESDAY, SEPTEMBER 14, 2010

“At about 10:30 this morning, I step out of my office...Almost immediately, I notice something different...

The paid parking portion of our downtown parking management program had gone into effect at 10 a.m., and it was already showing results. People who park all day downtown have moved into the lots and the upper levels of the parking garage. Spaces on the street are now available for shoppers, diners, and others who were running short-term errands. In other words, only 30 minutes after we instituted the parking management program, it is working.”

-- Bill Fulton, Mayor of Ventura

Source: http://fulton4ventura.blogspot.com/search?updated-max=2010-09-22T13%3A47%3A00-07%3A00&max-results=7
First impressions:
Saturday night in downtown Berkeley (January 30, 2010)
Conclusion: Building more spaces cannot solve the perceived parking shortage
Parking prices set at lowest rate to achieve 65-85% occupancy on each block

- Premium: up to $2.75/hr
- Value: up to $1.50/hr

- Revenues help fund public services for the blocks where the revenue is collected
Performance-Based Pricing at Work

Below 65%
- Lower Rate

Within Target Range
- No Change

Above 85%
- Raise Rate
Automated License Plate Recognition (LPR) system to gather occupancy data & conduct parking enforcement

- LPR installed on 5 enforcement vehicles
- Automatically generates parking occupancy maps
- Open-source software!

- Xerox: $500K contract to act as "system integrator"
- PCS Mobile: $450K contract to provide 5 Genetec LPR systems
Results

- Majority of drivers surveyed say “finding parking is easy.”
- More drivers use previously underutilized off-street facilities
- Eliminated 693,000 vehicle miles of travel per year, largely due to a reduction in circling for underpriced curb parking
goBerkeley performance-based parking
pricing program

“I think goBerkeley is one of the greatest ideas that we’ve had for many, many years...The anecdotal evidence that I hear ... is that there have been a few minor glitches, but the overwhelming sentiment is that this has been really successful.”

-- Councilmember Kriss Worthington

Source: http://www.dailycal.org/2016/06/01/city-council-discusses-potential-changes-to-parking-policies-at-special-meeting/
San Francisco’s SFpark program

PARKING TECHNOLOGY
+ FLEXIBLE PRICING
BETTER PARKING
Sfpark: occupancy estimated from meter payments

- Use smart meter payment data to estimate occupancy
- Sensor Independent Rate Adjustment (SIRA) algorithm
- Verified by manual occupancy surveys (and previous sensor data)

\[
\text{Occupancy Rate} = 29.283 + 0.808 \times (\text{Payment Rate})
\]
Boston’s Beacon Hill neighborhood

- 3,933 resident permits issued - free
- 983 curb spaces available
- Lesson: limit # of permits issued to less than the spaces available
Residential Parking Benefit Districts

- Implement where warranted by demand
- Existing residents park free or cheaply
  - Limit permits issued to available curb space
- Non-Residents pay regular parking fees
  - Revenues fund neighborhood improvements
  - Payment options: pay by phone, pay stations, meters, or “scratcher” paper permits
Residential Parking Benefit District Examples

- Laguna Beach, CA
  - Regular parking fees: $1.25-$2.25 per hour
  - Annual permit for residents: $40 per year

- Oceanside, CA
  - Regular parking fees: $1 per hour
  - Annual permit for residents: $100 per year

- Other Examples
  - Ventura, CA
  - Washington DC
  - Santa Cruz, CA
  - West Hollywood, CA
  - Austin, TX
  - Boulder, CO

Photo credits: Lady Demeter, Keith Kamisugi
Managing curb parking allows removal of minimum parking requirements.

Example: The Gaia Building, Berkeley, CA
Parking costs are “unbundled”

Parking fee: $150/month
The Freedom of Driving WITHOUT The Hassles of Ownership

share
The Gaia Building – Parking Demand

- 91 apartments, theater, café & office space
- 42 parking spaces supplied

Result: 237 adult residents with just 20 cars
Managing curb parking ➔ Unbundling parking costs

Cost of parking “unbundled” from other goods & services

- Hourly & daily fees
- Monthly parking fees
- Parking condominiums

Cost of parking is revealed to the user

People save money by using less parking, resulting in less parking demand, less driving, less congestion, less pollution

Less parking needs to be funded and built

More housing, less expensive housing

Less homelessness
Legalizing naturally occurring affordable housing

The problem:

“Nearly 40 East Palo Alto families in recent months have been turned out of their rental homes with as little as 10 days notice due to a recent citywide crackdown on illegal housing.... which have included converted garages”

Legalizing naturally occurring affordable housing

- Senate Bill 1069, adopted Sept 2016
- Prohibits cities from imposing minimum parking requirements on:
  - accessory dwelling units located within ½ mile of public transit
  - Units built within an existing primary residence

Removing minimum parking requirements lets homeowners add low-cost housing...or cafés, in the case of this San Francisco street

Photo: Tom Radulovich
Parking: High & Low Traffic Strategies

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<td>Housing Costs</td>
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<td>Pollution</td>
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### Conventional Minimum Requirements
- Requirement > Average Demand
- Hide all parking costs

### 'Tailored' Minimum Requirements
- Adjust for:
  - Density
  - Transit
  - Mixed Use
  - ‘Park Once’ District
  - On-street spaces
  - ...etc.

### Abolish Minimum Requirements
- Market decides
- Parking funded by parking revenues
- Manage curb parking with parking benefit districts

### Set Maximum Requirements
- Limit parking to road capacity
- Manage on-street parking
- Market rate fees required
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