



The High Cost of Free Parking

DONALD SHOUP

Suppose in 1900 the new automobile and oil industries had asked you to devise city planning policies that will increase the demand for cars and fuel. Consider three options.

First, divide the city into separate zones (housing here, jobs there, and shopping somewhere else) to create travel between the zones.

Second, limit density to spread everything apart and further increase travel demand.

Third, impose minimum parking requirements to ensure that drivers can easily park free at the beginning and end of almost every automobile trip.

American cities have unwisely embraced these three planning policies.

Zoning ordinances that segregate land uses, limit density, and require parking make cars essential for most trips.

Zoning ordinances create sprawled, drivable cities and prohibit compact, walkable neighborhoods.

The Shoup Doggma

1. Charge the right prices for curb parking.
The lowest prices that will leave one or two parking spaces open on every block—demand-based pricing
Curb spaces will be both well used and readily available.
2. Establish Parking Benefit Districts that use the parking meter revenue to improve public services in the metered neighborhoods.
Improving neighborhood public services will make right-pricing curb parking politically popular.
3. Remove off-street parking requirements.
Freedom from parking requirements will benefit cities, the economy, and the environment.

Minimum Parking Requirements Have Created a Great Planning Disaster

They skew travel choices toward cars.

They distort urban form toward sprawl.

They degrade urban design.

They raise housing costs.

They impede reuse of older buildings.

They damage the urban economy.

They harm the environment.

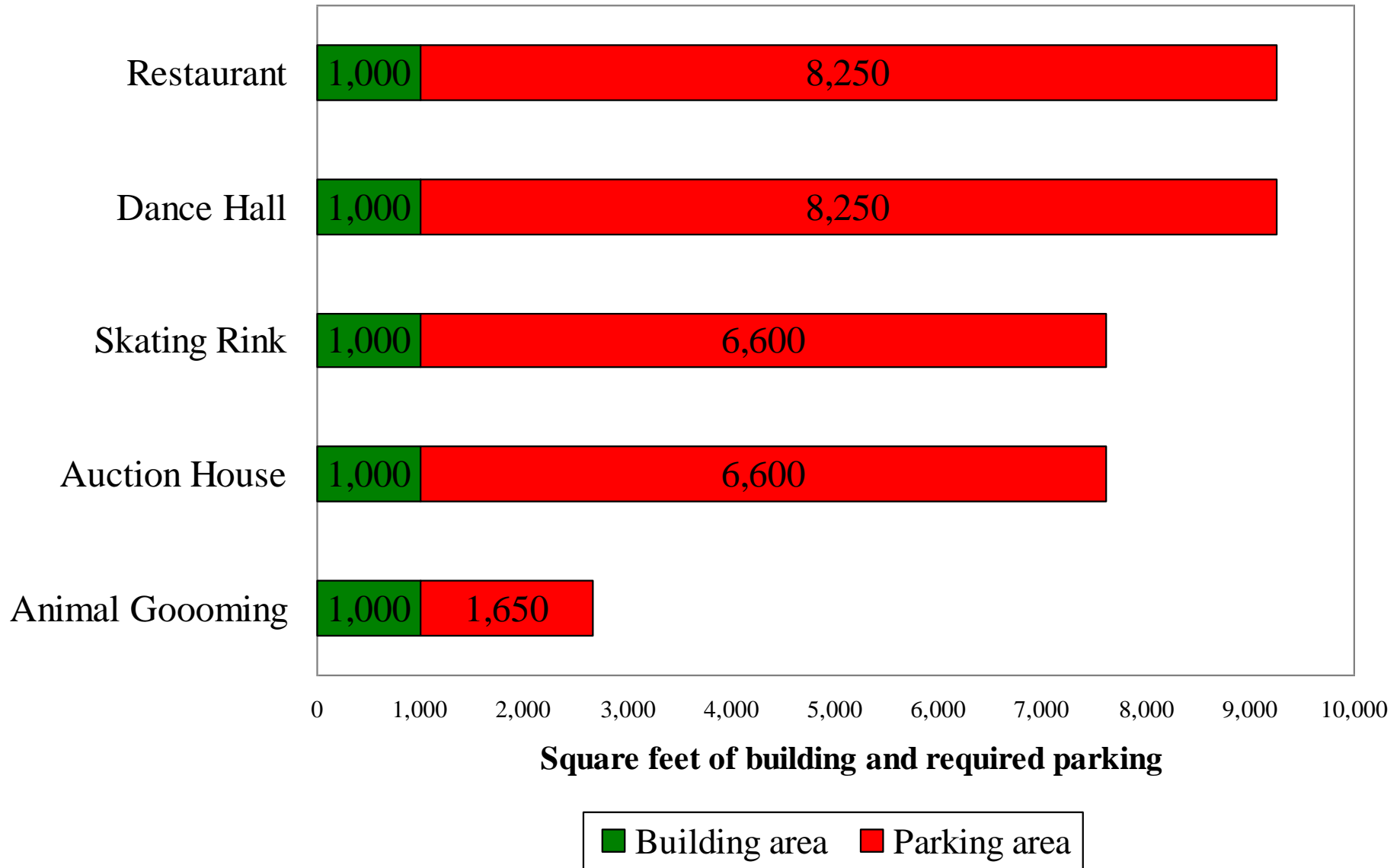


Parking in Silicon Valley



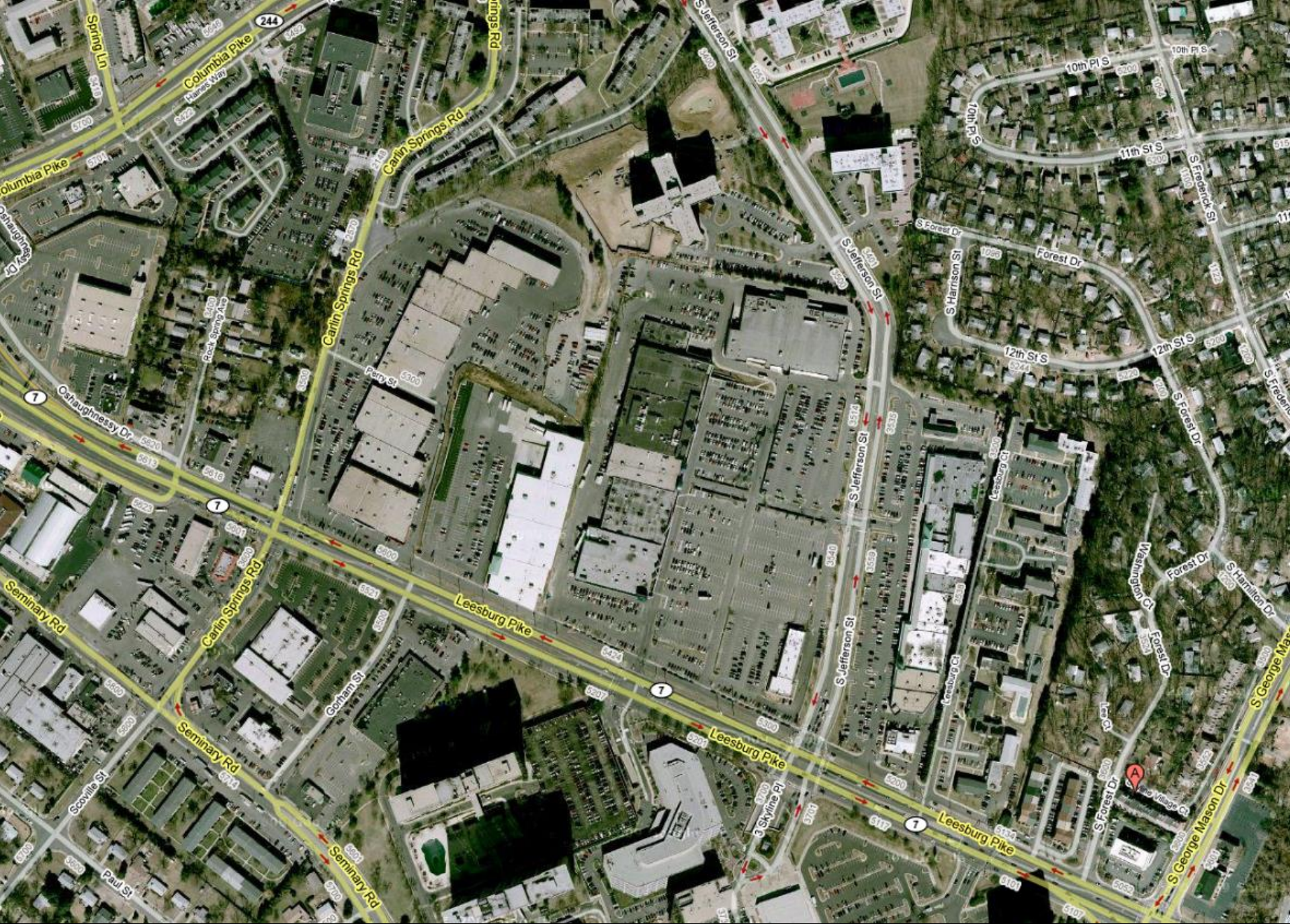
Ample free parking increases the demand for driving.

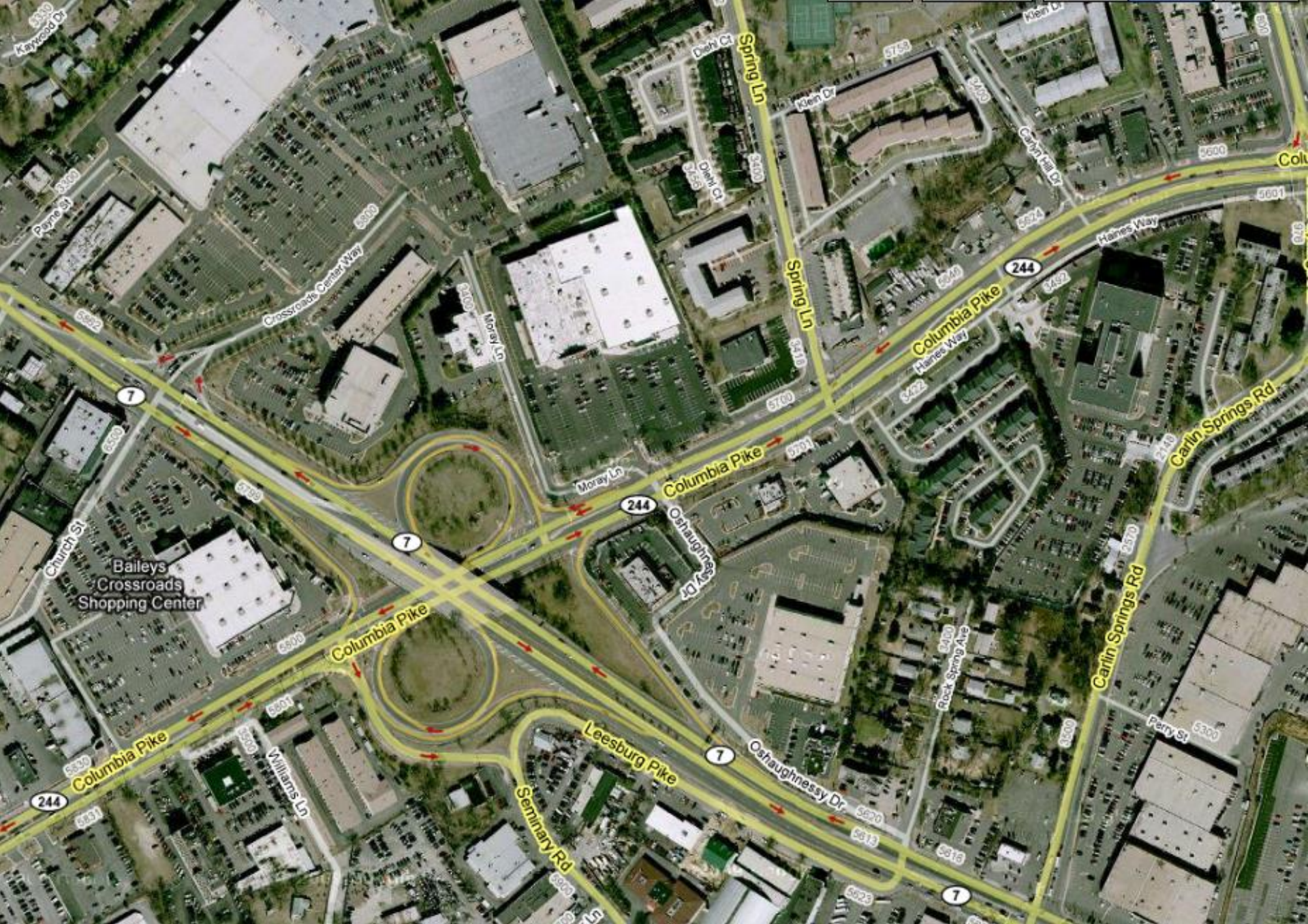
San José's minimum parking requirements

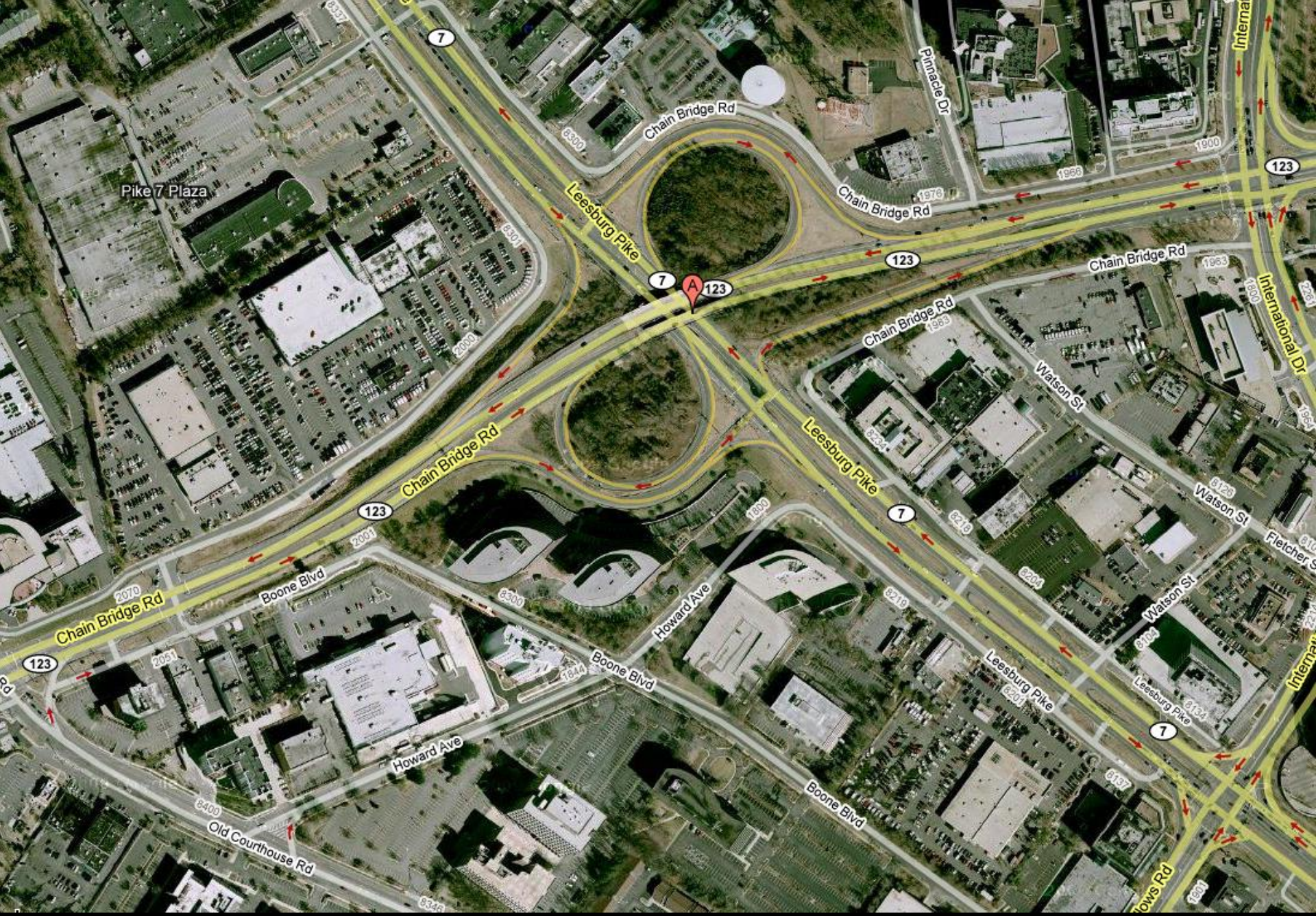


San Jose's off-street parking requirements

Table 20-190 Parking Spaces Required by Land Use		
Use	Minimum Parking Required	Applicable Sections
	per staff	
School, trade and vocational	1 per 3 students, plus 1 per staff	
Entertainment and Recreation		
Arcade, amusement	1 per 200 sq. ft. of floor area	
Batting Cages	1 per station, plus 1 per employee	
Bowling establishment	7 per lane	
Dancehall	1 per 40 sq. ft. open to public	
Driving range	1 per tee, plus 1 per employee	
Golf course	8 per golf hole, plus 1 per employee	
Health club, gymnasium	1 per 80 sq. ft. recreational space	
Miniature golf	1.25 per tee, plus 1 per employee	
Performing arts production per rehearsal space	1 per 150 sq. ft. of floor area	
Poolroom	1 per 200 sq. ft. of floor area	
Private club or lodge	1 per 4 fixed seats on the premises, or 1 per 6 linear feet of seating, plus 1 per 200 square feet of area without seating but designed for meeting or assembly by guests, plus 1 per 500 sq. ft. of outdoor area developed for recreational purposes	
Recreation, Commercial (indoor)	1 per 80 sq. ft. of recreational area	
Recreation, Commercial (outdoor)	20 per acre of site	
Skating rink	1 per 50 sq. ft. of floor area	
Swim and tennis club	1 per 500 sq. ft. of recreation area	









Fairfax County

PARKING REQUIREMENTS:

ESTABLISHMENTS NOT IN A SHOPPING CENTER

USE	RATE
Restaurants < 5000 SF in size	10 spaces/1,000 SF
Restaurants > 5000 SF or more	11 spaces/1,000 SF
Restaurants with Drive-through	12 spaces/1,000 SF (no change to the stacking requirements)
Carryout Restaurants	6.5 spaces/1,000 SF
Quick-service Food Stores	6.5 spaces/1,000 SF

PERIODIC TABLE OF THE ELEMENTS

<http://www.ktf-split.hr/periodni/en/>

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1.0079 H HYDROGEN																	2 4.0026 He HELIUM
2	3 6.941 Li LITHIUM	4 9.0122 Be BERYLLIUM																
3	11 22.990 Na SODIUM	12 24.305 Mg MAGNESIUM																
4	19 39.098 K POTASSIUM	20 40.078 Ca CALCIUM	21 44.956 Sc SCANDIUM	22 47.867 Ti TITANIUM	23 50.942 V VANADIUM	24 51.996 Cr CHROMIUM	25 54.938 Mn MANGANESE	26 55.845 Fe IRON	27 58.933 Co COBALT	28 58.693 Ni NICKEL	29 63.546 Cu COPPER	30 65.39 Zn ZINC	31 69.723 Ga GALLIUM	32 72.64 Ge GERMANIUM	33 74.922 As ARSENIC	34 78.96 Se SELENIUM	35 79.904 Br BROMINE	36 83.80 Kr KRYPTON
5	37 85.468 Rb RUBIDIUM	38 87.62 Sr STRONTIUM	39 88.906 Y YTTORIUM	40 91.224 Zr ZIRCONIUM	41 92.906 Nb NIOBIUM	42 95.94 Mo MOLYBDENUM	43 (98) Tc TECHNETIUM	44 101.07 Ru RUTHENIUM	45 102.91 Rh RHODIUM	46 106.42 Pd PALLADIUM	47 107.87 Ag SILVER	48 112.41 Cd CADMIUM	49 114.82 In INDIUM	50 118.71 Sn TIN	51 121.76 Sb ANTIMONY	52 127.60 Te TELLURIUM	53 126.90 I IODINE	54 131.29 Xe XENON
6	55 132.91 Cs CAESIUM	56 137.33 Ba BARIUM	57-71 La-Lu Lanthanide	72 178.49 Hf HAFNIUM	73 180.95 Ta TANTALUM	74 183.84 W TUNGSTEN	75 186.21 Re RHENIUM	76 190.23 Os OSMIUM	77 192.22 Ir IRIDIUM	78 195.08 Pt PLATINUM	79 196.97 Au GOLD	80 200.59 Hg MERCURY	81 204.38 Tl THALLIUM	82 207.2 Pb LEAD	83 208.98 Bi BISMUTH	84 (209) Po POLONIUM	85 (210) At ASTATINE	86 (222) Rn RADON
7	87 (223) Fr FRANCIUM	88 (226) Ra RADIUM	89-103 Ac-Lr Actinide	104 (261) Rf RUTHERFORDIUM	105 (262) Db DUBNIUM	106 (266) Sg SEABORGIUM	107 (264) Bh BOHRNIUM	108 (277) Hs HASSIUM	109 (268) Mt MEITNERIUM	110 (281) Uun UNUNNIUM	111 (272) Uuu UNUNUNIUM	112 (285) Uub UNUNBIUM						

LANTHANIDE

57 138.91 La LANTHANUM	58 140.12 Ce CERIUM	59 140.91 Pr PRASEODYMIUM	60 144.24 Nd NEODYMIUM	61 (145) Pm PROMETHIUM	62 150.36 Sm SAMARIUM	63 151.96 Eu EUROPIUM	64 157.25 Gd GADOLINIUM	65 158.93 Tb TERBIUM	66 162.50 Dy DYSPROSIUM	67 164.93 Ho HOLMIUM	68 167.26 Er ERBIUM	69 168.93 Tm THULIUM	70 173.04 Yb YTTERIUM	71 174.97 Lu LUTETIUM
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ACTINIDE

89 (227) Ac ACTINIUM	90 232.04 Th THORIUM	91 231.04 Pa PROTACTINIUM	92 238.03 U URANIUM	93 (237) Np NEPTUNIUM	94 (244) Pu PLUTONIUM	95 (243) Am AMERICIUM	96 (247) Cm CURIUM	97 (247) Bk BERKELIUM	98 (251) Cf CALIFORNIUM	99 (252) Es EINSTEINIUM	100 (257) Fm FERMIUM	101 (258) Md MENDELEVIUM	102 (259) No NOBELIUM	103 (262) Lr LAWRENCIUM
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(1) Pure Appl. Chem., 73, No. 4, 667-683 (2001)
Relative atomic mass is shown with five significant figures. For elements having no stable nuclides, the value enclosed in brackets indicates the mass number of the longest-lived isotope of the element.

However three such elements (Th, Pa, and U) do have a characteristic terrestrial isotopic composition, and for these an atomic weight is tabulated.

A parking requirement sampler

Barber shop	2 spaces per barber
Beauty shop	3 spaces per beautician
Nunnery	1 space per 10 nuns
Rectory	3 spaces per 4 clergymen
Sex novelty shop	3 spaces per 1,000 square feet
Gas station	1.5 spaces per fuel nozzle
Swimming pool	1 space per 2,500 gallons
Mausoleum	10 spaces per maximum number of interments in a one-hour period

How can anyone recommend a parking requirement
if they

Don't know how much the required parking spaces cost.

Don't know how much the parking requirements increase the cost of housing and everything else.

Don't know how the parking requirements affect urban design.

Don't know how the parking requirements affect vehicle traffic.

Don't know how the parking requirements affect air pollution.

Don't know how the parking requirements affect CO₂ emissions.

Have no training in how to set a parking requirement.

Parking requirements politicize what should be business decisions.

Parking requirements governmentalize what should be market choices.

Minimum parking requirements are what engineers call a “kludge.”

An awkward device with lots of moving parts that are clumsy, inefficient, redundant, hard to understand, and expensive to maintain.

A ludicrous assortment of incompatible and unworkable components

An ill-assorted collection of poorly matching parts, forming a distressing whole.

What happened when Oakland began requiring one off-street parking space per dwelling unit?

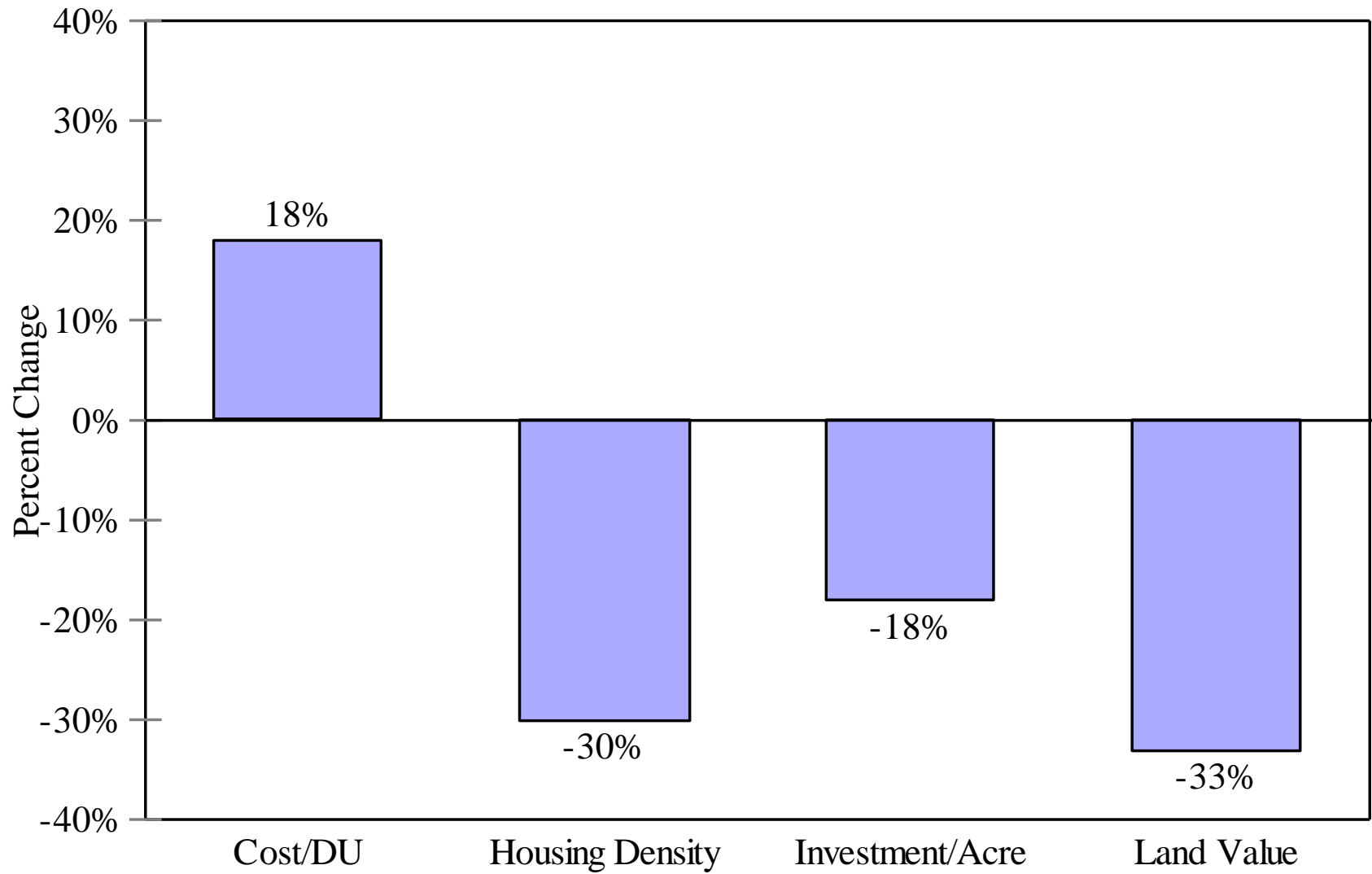


Table 1. The Construction Cost of a Parking Space

City	Construction Cost per Square Foot		Construction Cost per Space	
	Underground	Aboveground	Underground	Aboveground
	\$/sq ft	\$/sq ft	\$/space	\$/space
	(1)	(2)	(3)=(1)x330	(4)=(2)x330
Boston	\$95	\$75	\$31,000	\$25,000
Chicago	\$110	\$88	\$36,000	\$29,000
Denver	\$78	\$55	\$26,000	\$18,000
Honolulu	\$145	\$75	\$48,000	\$25,000
Las Vegas	\$105	\$68	\$35,000	\$22,000
Los Angeles	\$108	\$83	\$35,000	\$27,000
New York	\$105	\$85	\$35,000	\$28,000
Phoenix	\$80	\$53	\$26,000	\$17,000
Portland	\$105	\$78	\$35,000	\$26,000
San Francisco	\$115	\$88	\$38,000	\$29,000
Seattle	\$105	\$75	\$35,000	\$25,000
Washington, DC	\$88	\$68	\$29,000	\$22,000
Average	\$103	\$74	\$34,000	\$24,000

Source: Rider Levett Bucknall, Quarterly Construction Cost Report, Fourth Quarter 2012

One structured parking space costs more than the entire net worth of many families.

Median Net Worth of US Households, 2019

Group	Median Net Worth
White	\$188,200
Hispanic	\$36,200
Black	\$18,200

Parking requirements distort urban form

Directly, by increasing the land and capital devoted to parking.

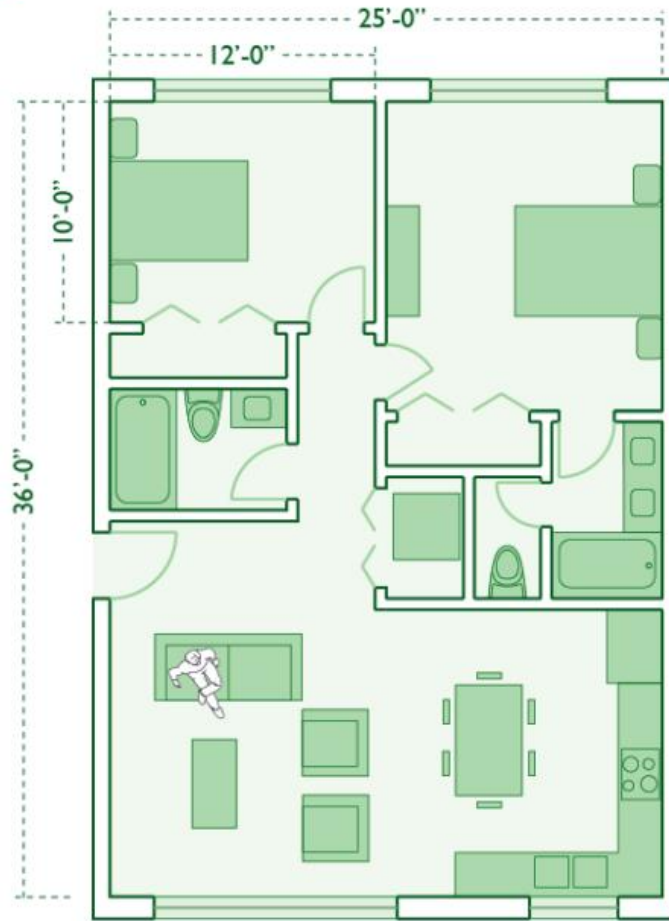
Indirectly, by increasing automobile use and urban sprawl.

American cities have more parking spaces than people.

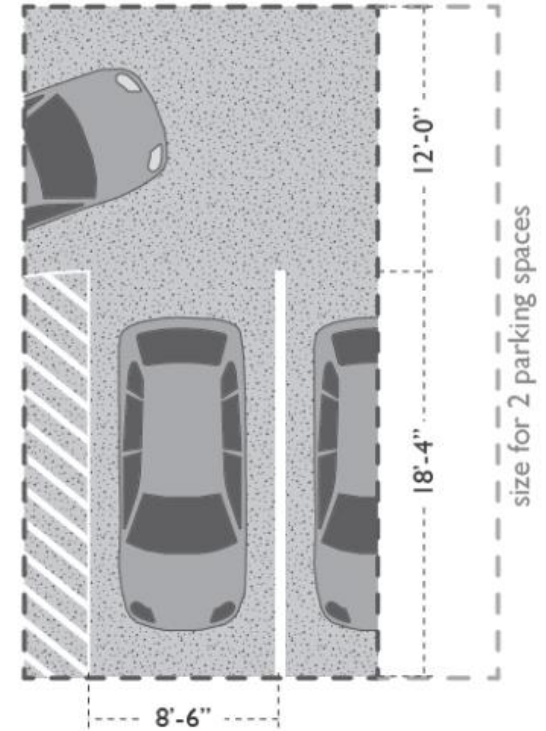
Streets are free parking lots.

Living space and parking space for a typical 2-bedroom apartment

median requirement:
1.5 spaces : 2 bedroom apartment



2 BEDROOM APARTMENT
900 FT²



1.5 PARKING SPACES
INCLUDING AISLES
485 FT²

Where do parking requirements come from?

1. *Parking Standards*, published by the American Planning Association, allows planners to copy other cities' parking requirements.
2. *Parking Generation*, published by the Institute of Transportation Engineers, allows cities to consult unreliable surveys of parking occupancy

Parking Standards

Parking Standards

Edited by
Michael Davidson and Fay Dolnick

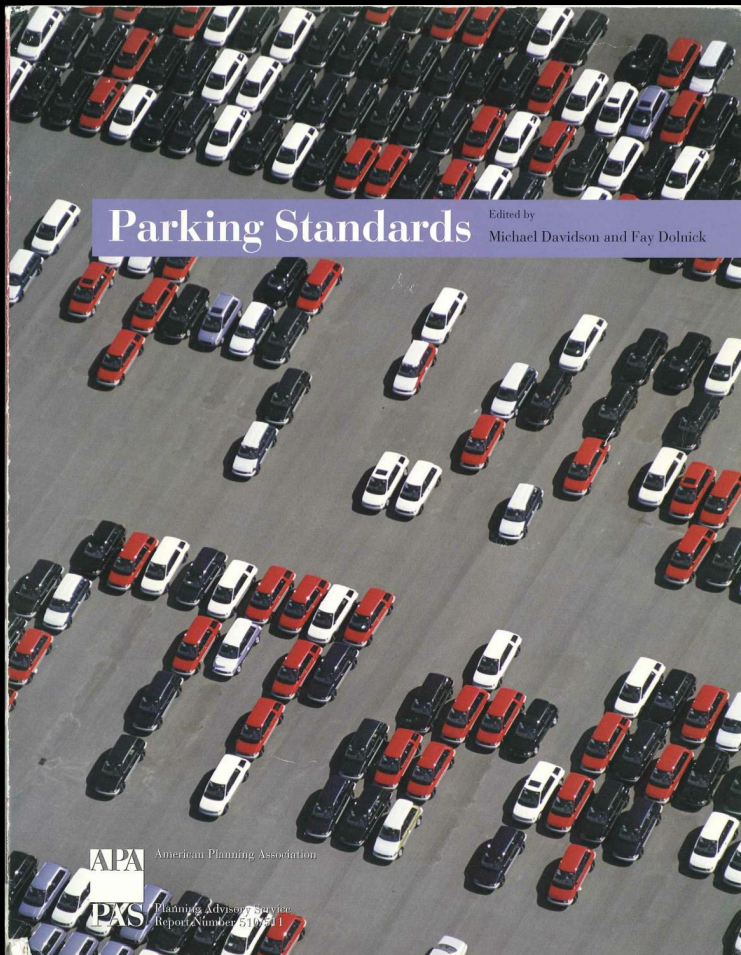
APA

American Planning Association

PAS

Planning Advisory Service
Report Number 510/511

Survey of parking requirements for 660 land uses



ALL USES

a

abattoir (*see* slaughterhouse)
 accessory dwelling unit
 administrative office (*see* office uses)
 adult use
 adult use, adult arcade
 adult use, adult cabaret
 adult use, adult motion picture theater
 adult use, adult theater
 adult use, book store
 adult use, entertainment facility
 adult use, massage parlor (*see also* massage establishment)
 adult use, sex novelty shop
 advertising agency (*see also* office use)
 agricultural use, unless otherwise specified (*see also* farm uses)
 agricultural processing plant (*see also* industrial uses)
 agricultural-related industry (*see also* agricultural use, unless otherwise specified)
 agricultural sales and service use (*see also* farm supply store; feed store)
 aircraft charter service
 airport (*see also* airport terminal)
 airport hangar
 airport, local/private use
 airport terminal (*see also* airport; transportation terminal)
 ambulance service
 amphitheater (*see also* stadium)
 amusement enterprise (*see also* recreation facility uses)
 amusement enterprise, indoor
 amusement enterprise, outdoor
 amusement park
 amusement park, children's
 amusement park, water
 ancillary use (*see* accessory use)
 animal boarding facility
 animal breeder establishment
 animal grooming salon
 animal hospital
 animal sales establishment (*see* pet shop)
 animal shelter
 animal training facility
 antique shop (*see also* second-hand store)
 apartment (*see* dwelling, apartment uses)
 apartment hotel (*see* extended-stay hotel)
 apparel store (*see* clothing store)
 appliance and equipment repair establishment (*see also* equipment uses)

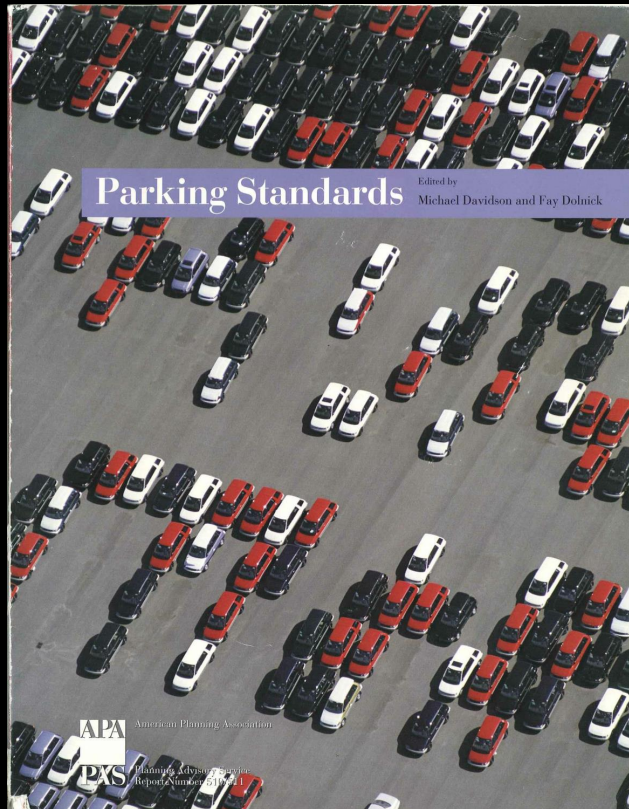
appliance sales establishment
 aquaculture use
 aquarium
 arboretum (*see also* botanical gardens; community garden)
 arcade, amusement (*see also* amusement enterprise uses)
 archery range (*see also* rifle range; shooting range)
 arena (*see* stadium)
 armory
 art gallery (*see also* cultural uses)
 art school (*see* educational facilities, school for the arts)
 art supplies store
 artisan workshop (*see also* live-work studio)
 artist studio (*see also* artisan workshop; live-work studio)
 asphalt manufacturing facility (*see also* industrial use, heavy)
 assembly hall (*see also* auditorium; civic center)
 assisted living (*see* elderly housing, assisted living)
 asylum (*see* mental health facility)
 athletic field (*see also* ball field; grandstands; recreation facility uses)
 auction, automobile
 auction house
 auditorium (*see also* assembly hall; civic center)
 automated teller machine (ATM)
 automated teller machine (ATM), exterior, on bank property
 automobile convenience store (*see* gas station, mini-mart)
 automobile dealership (*see also* motor vehicle sales establishment)
 automobile graveyard (*see* automobile salvage yard; junk yard)
 automobile impound facility (*see also* towing service)
 automobile laundry (*see* car wash uses)
 automobile maintenance, quick service establishment (*see also* automobile repair service establishment)
 automobile mall (*see* automobile dealership uses)
 automobile parts store
 automobile rental establishment (*see also* motor vehicle rental establishment)
 automobile repair service establishment (*see also* gas station; motor vehicle repair service establishment; tire store and

service establishment)
 automobile salvage yard (*see also* junk yard)
 automobile service station (*see also* gas station)

b

bait shop (*see also* retail use, unless otherwise specified)
 bakery
 bakery, wholesale
 ball field (*see also* athletic field; grandstands; recreation facility uses)
 ballroom (*see also* banquet hall; dance hall)
 bank (*see also* accessory banking; automated teller machine (ATM); credit union)
 bank, drive-thru only (*see also* drive-thru use, unless otherwise specified)
 bank with drive-thru (*see also* drive-thru use, unless otherwise specified)
 bank, without drive-thru
 banquet hall (*see also* ballroom; dining room; meeting hall)
 bar (*see also* beer garden; bottle club; brew pub; night club)
 barber shop (*see also* beauty shop; personal services establishment)
 baseball field (*see* ballfield)
 basketball court
 batch plant (*see* concrete production plant)
 bathhouse (*see also* health spa; sauna bath)
 batting cage facility
 beach, commercial
 beach, community
 beauty shop (*see also* barber shop; personal services establishment)
 beauty school (*see also* educational facility; trade school)
 bed and breakfast home
 bed and breakfast inn (*see also* tourist home)
 beer garden (*see also* outdoor seating area)
 bicycle rental and repair shop
 bicycle repair shop
 bicycle sales shop
 billiard hall (*see* pool hall)
 big box retail establishment (*see also* department store; shopping center uses)
 bingo hall
 blood donor center
 blueprinting shop (*see also* copy shop; printing and publishing facility)
 boarding house (*see also* lodging house; rooming house)

Parking requirements for adult land uses



a

abattoir (see slaughterhouse)

accessory dwelling unit

- 1 additional space, on the same zone lot (*Greensboro, N.C., pop. 223,891*)
- ✓ 1 per attached accessory dwelling unit, in addition to other required spaces (*Washoe County, Nev., pop. 339,486*)
- 1 per bedroom (*Reno, Nev., pop. 180,480*)
- 1 space (*Encinitas, Calif., pop. 58,014*)
- 1 space per unit (*Palo Alto, Calif., pop. 58,598*)
- 2 spaces per unit; such space must have convenient access to a street (*Smithfield, Va., pop. 6,324*)



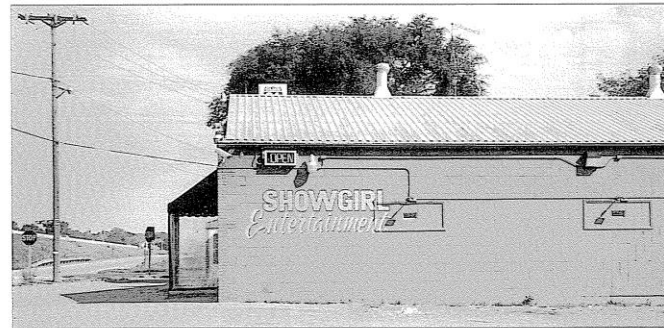
Bicycle Parking Standard: 0.5 per 1,000; 1 per 20 seats (*Tigard, Ore., pop. 41,223*)

adult use adult arcade

- 1 parking space shall be provided for every 2 occupants per the allowable occupant load as established by the city's building official or fire marshal, whichever standard is greater. In addition, 1 parking space shall be provided for each employee or independent contractor on the maximum shift. (*Santa Clarita, Calif., pop. 151,088*)

adult use, adult cabaret

- 1 parking space shall be provided for every 2 occupants per the allowable occupant load as established by the city's building official or fire marshal, whichever standard is greater. In addition, 1 parking space shall be provided for each employee or independent contractor on the maximum shift. (*Santa Clarita, Calif., pop. 151,088*)
- 1 space per 25 square feet of gross floor area (*Garden Grove, Calif., pop. 163,196*)



adult use

administrative office (see office uses)

adult use

- 0.3 per seat, plus 3.3 per 1,000 square feet of gross floor area (*Tampa, Fla., pop. 303,447*)
- 1 per 60 square feet (*Henderson, Nev., 175,381*)
- 10 per 1,000 square feet (*Hickory, N.C., pop. 37,222*)
- 12 per 1,000 square feet (*St. Mary's County, Md., pop. 86,211*)
- Minimum: 1 per 500 square feet above first 2,400 square feet
- Maximum: 1 per 150 square feet (*Pittsburgh, Pa., pop. 334,563*)
- Minimum: 1 per 250 square feet of gross floor area
- Maximum: 1 per 200 square feet of gross floor area (*Glenville, N.Y., pop. 28,183*)

- 1 per 200 square feet (*Fort Wayne, Ind., pop. 205,727*)
- 10 per 1,000 square feet, but not less than 15 (*Clark County, Nev., pop. 1,375,365*)

adult use, adult motion picture theater

- 1 off-street parking space for each 10 seats or equivalent (*San Bruno, Calif., pop. 40,165*)
- 1 parking space shall be provided for every 2 occupants per the allowable occupant load as established by the city's building official or fire marshal, whichever standard is greater. In addition, 1 parking space shall be provided for each employee or independent contractor on the maximum shift. (*Santa Clarita, Calif., pop. 151,088*)
- 1 space for each 8 fixed seats or 1 space for each 100 square feet of spectator assembly area not containing fixed seats (*Seattle, Wash., pop. 563,374*)

We can use the PAS's own words to summarize its main conclusions:

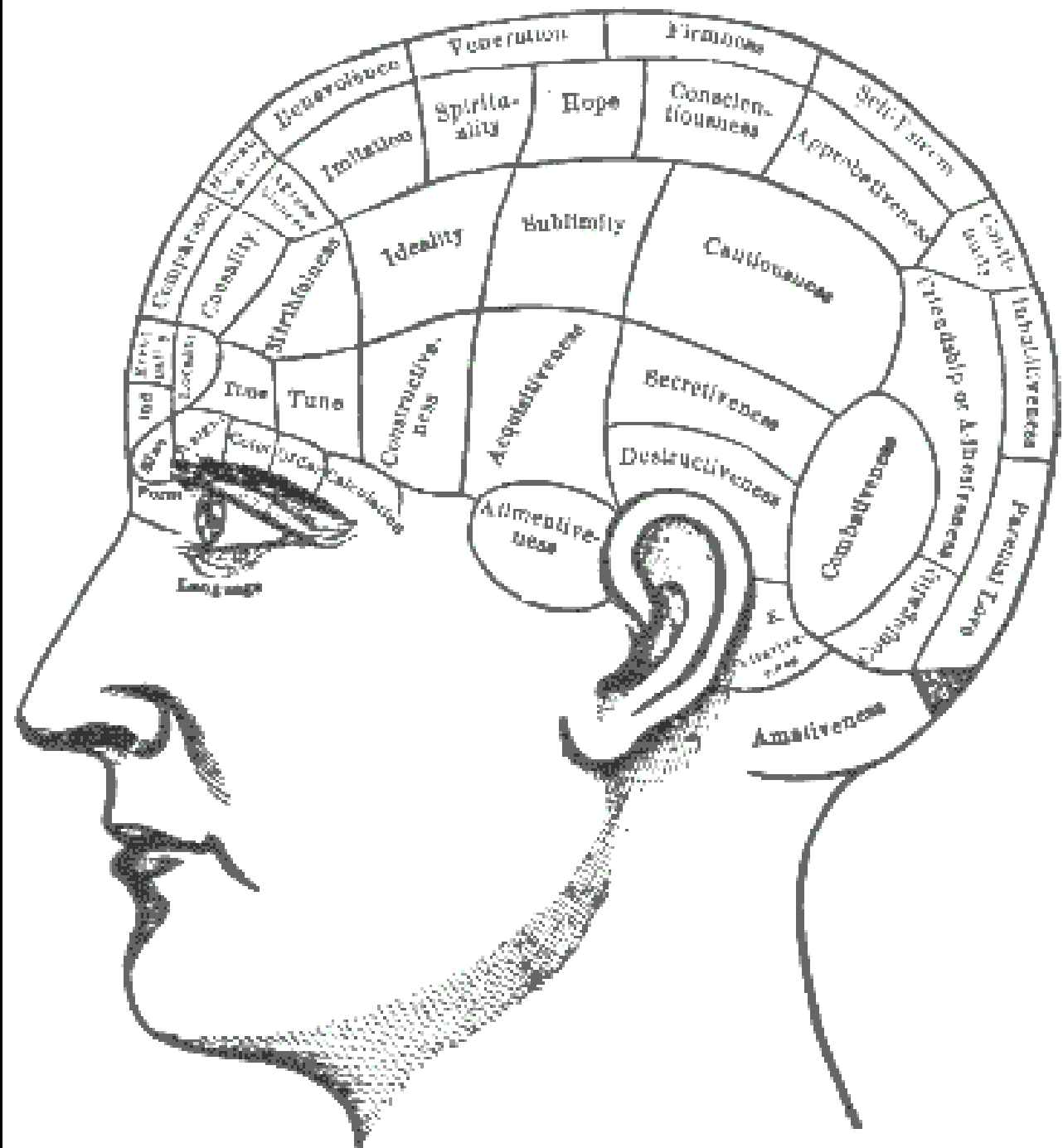
The underlying assumptions used in drafting parking requirements are unknown (1964, 1).

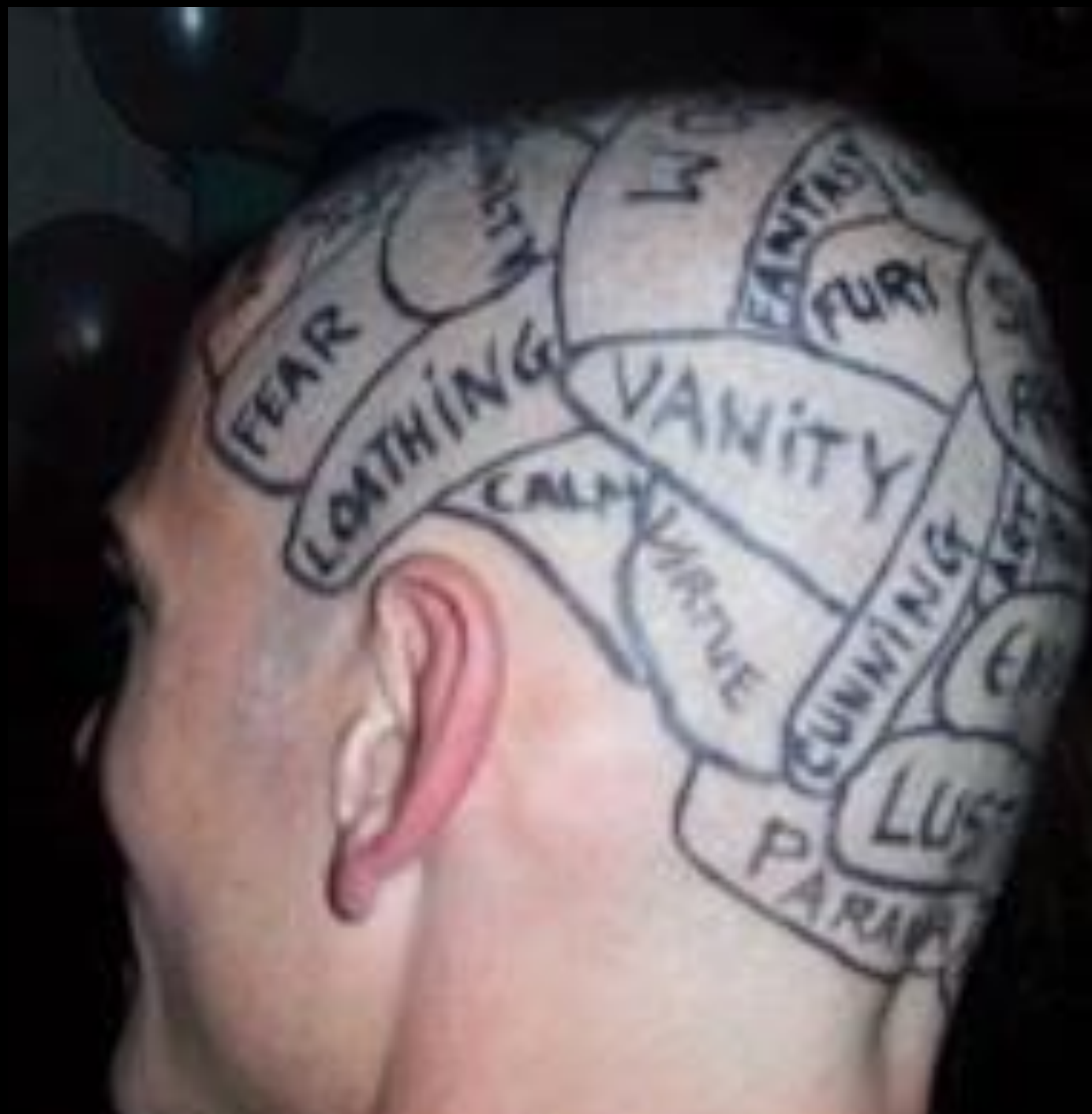
Copying other cities' parking requirements may simply repeat someone else's mistakes (1971, 1).

For every land use whose parking demand planners know something about, at least a dozen remain mysteries (1983, 15).

Absurd twists of logic in the way the standards were drafted sometimes make it impossible to say which of two cities requires more parking for the same land use (1991, 1).

Many communities have created parking standards that require developments to build parking spaces far in excess of demand (2002, 6).





Where do parking requirements come from?

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2. *Parking Generation*, published by the Institute of Transportation Engineers, allows cities to consult unreliable surveys of parking occupancy

*Parking
Generation*

4th Edition

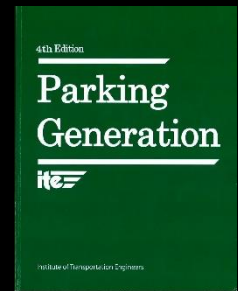
Parking
Generation



Institute of Transportation Engineers

ITE parking generation rates

“Parking generation” is the peak parking occupancy observed at a site.



Data are derived from suburban developments with little or no transit ridership.

Parking Generation Survey Method

“A vast majority of the data ... is derived from suburban developments with little or no significant transit ridership ... The ideal site for obtaining reliable parking generation data would ... contain ample, convenient parking facilities for the exclusive use of the traffic generated by the site ... The objective of the survey is to count the number of vehicles at the time of peak parking demand.” - *Parking Generation* (1987)

Precision versus Accuracy

Q: How far is it from San Diego to San Francisco?

A1: 632.125 miles

Precise but not accurate because the correct answer is 460 miles

A2: Somewhere between 400 and 500 miles

Less precise but more accurate

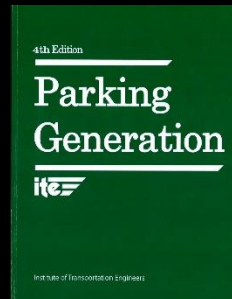
Inappropriate Precision

Trip generation and parking generation

ITE's trip generation and parking generation estimates are used in:

transportation models
planning decisions
court rulings

travel forecasts
municipal ordinances



FAST FOOD RESTAURANT WITH DRIVE-IN WINDOW (836)

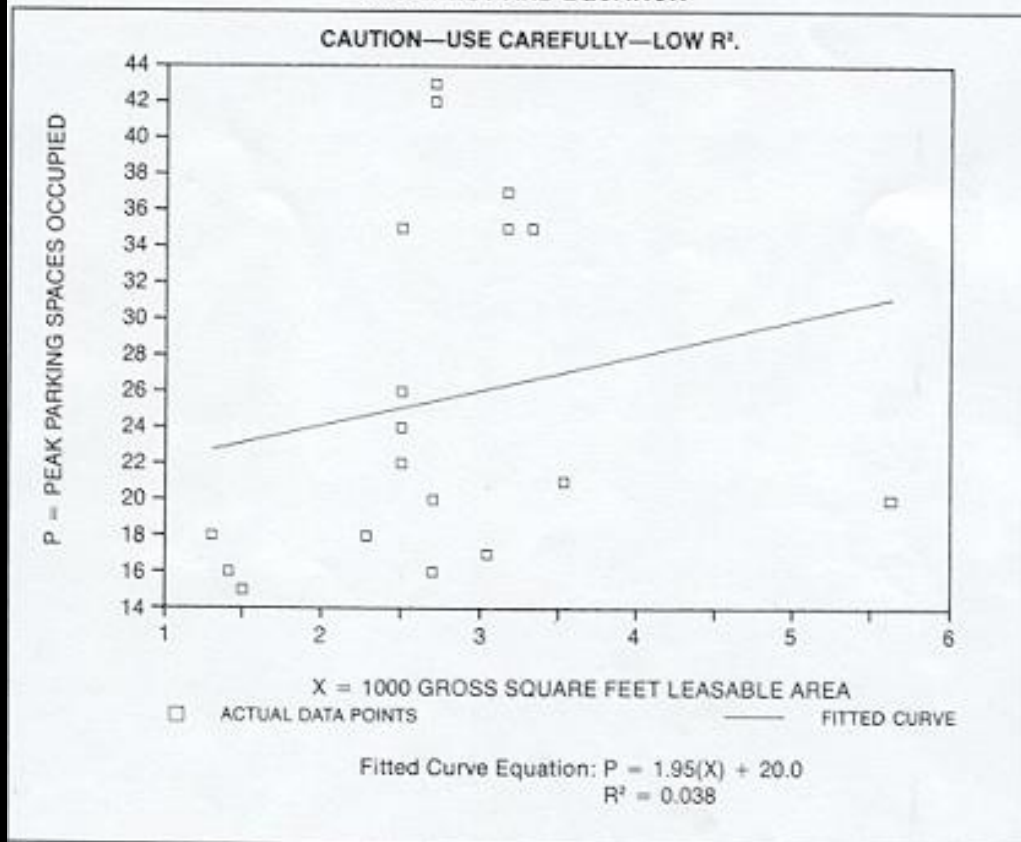
Peak Parking Spaces Occupied vs: 1,000 GROSS SQUARE FEET
LEASABLE AREA

On a: WEEKDAY

PARKING GENERATION RATES

Average Rate	Range of Rates	Standard Deviation	Number of Studies	Average 1,000 GSF Leasable Area
9.95	3.55–15.92	3.41	18	3

DATA PLOT AND EQUATION



4th Edition

Parking Generation



Institute of Transportation Engineers

Second Edition

Ample free parking everywhere

Transportation engineers define parking demand as the peak parking occupancy observed at a site. *The price drivers pay for parking is ignored.*

Urban planners require new land uses to supply enough parking spaces to accommodate this peak demand. *The developer's cost of providing the required parking is ignored.*

Step 1

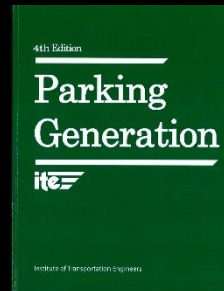
Parking Generation Rates

Transportation engineers survey the peak parking demand at suburban sites with ample free parking but no public transit. The ITE summarizes the data in *Parking Generation*, which reports a precise parking generation rate for each land use.

Step 2

Minimum Parking Requirements

Urban planners consult *Parking Generation* to set minimum parking requirements for each land use. The maximum observed parking demand becomes the minimum required parking supply.



Step 6

Urban Sprawl

Urban planners limit density so that new development will not generate more vehicle trips than nearby roads can carry. The lower density spreads activities farther apart, further increasing vehicle travel and parking demand.

Step 3

Ample Free Parking

Developers provide all the parking spaces that planners require. Because the required parking supply is so large, the market price of most parking is zero, and drivers park free for most trips.



Step 5

Transportation System Design

Transportation planners consult *Trip Generation* to design the transportation system, which therefore provides enough capacity to satisfy the demand for vehicle trips to and from suburban sites with ample free parking but no public transit.

Step 4

Trip Generation Rates

Transportation engineers survey vehicle trips to and from suburban sites with ample free parking but no public transit. The ITE summarizes the data in *Trip Generation*, which reports a precise trip generation rate for each land use.

The Results

Urban planners neglect both the price and the cost of parking when they set parking requirements.

Urban planners typically require at least enough spaces to meet the demand for free parking.

Free parking drives both transportation and land use.



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Rethinking Parking Minimums

The inception of parking started in the 1920s and 1930s in the United States as cars were the new status symbol of wealth. There were rows of cars lining the curbs of streets, with no rules governing parking. The first parking meter was installed in the United States in 1935 in Oklahoma City, OK. Privately run off-street lots became popular to meet the demand, and parking structures sprung up to provide parking in proximity to surrounding destinations. Over time, parking management has become more complex and rules were needed to add order.

City zoning ordinances were introduced which identified minimum parking requirements, which are typically calculated on a base unit, such as required stalls per 1,000 square feet



**BRUCE BELMORE, P.ENG.,
PTOE, AVS (F)**

ITE International President

In 2019 the President of the Institute of Transportation Engineers recommended eliminating minimum parking requirements.

This discussion reminds me of the 1970s Joni Mitchell song *Big Yellow Taxi* in which she famously sings, “They paved paradise and put up a parking lot.” Here are some easy ways to regain a piece of paradise:

- 1. Eliminate mandatory minimum parking requirements** – This elimination will not only give people more say over how they live their lives and use their property, but it’s also an important step in developing affordable housing. Buffalo, NY, USA and Hartford, CT, USA have recently scrapped their minimum parking requirements.
- 2. Use data, technology, and pricing to manage parking** – The District Department of Transportation in Washington, DC, USA uses sensors embedded at metered stalls to measure parking availability, and then pricing is changed based on demand.

The Hiding Hand

Adam Smith's invisible hand in economics: It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. Individuals who intend their own gain are led by an invisible hand to promote an end which was no part of their intention.

The hiding hand in city planning: Minimum parking requirements hide the cost of parking in higher prices for housing and everything else. Cities don't have to subsidize the parking and no one knows who really pays for it.

Three Stages of Belief in Santa Claus

Small children believe in Santa Claus.

Then they don't believe in Santa Claus.

Finally, adults realize they are Santa Claus.

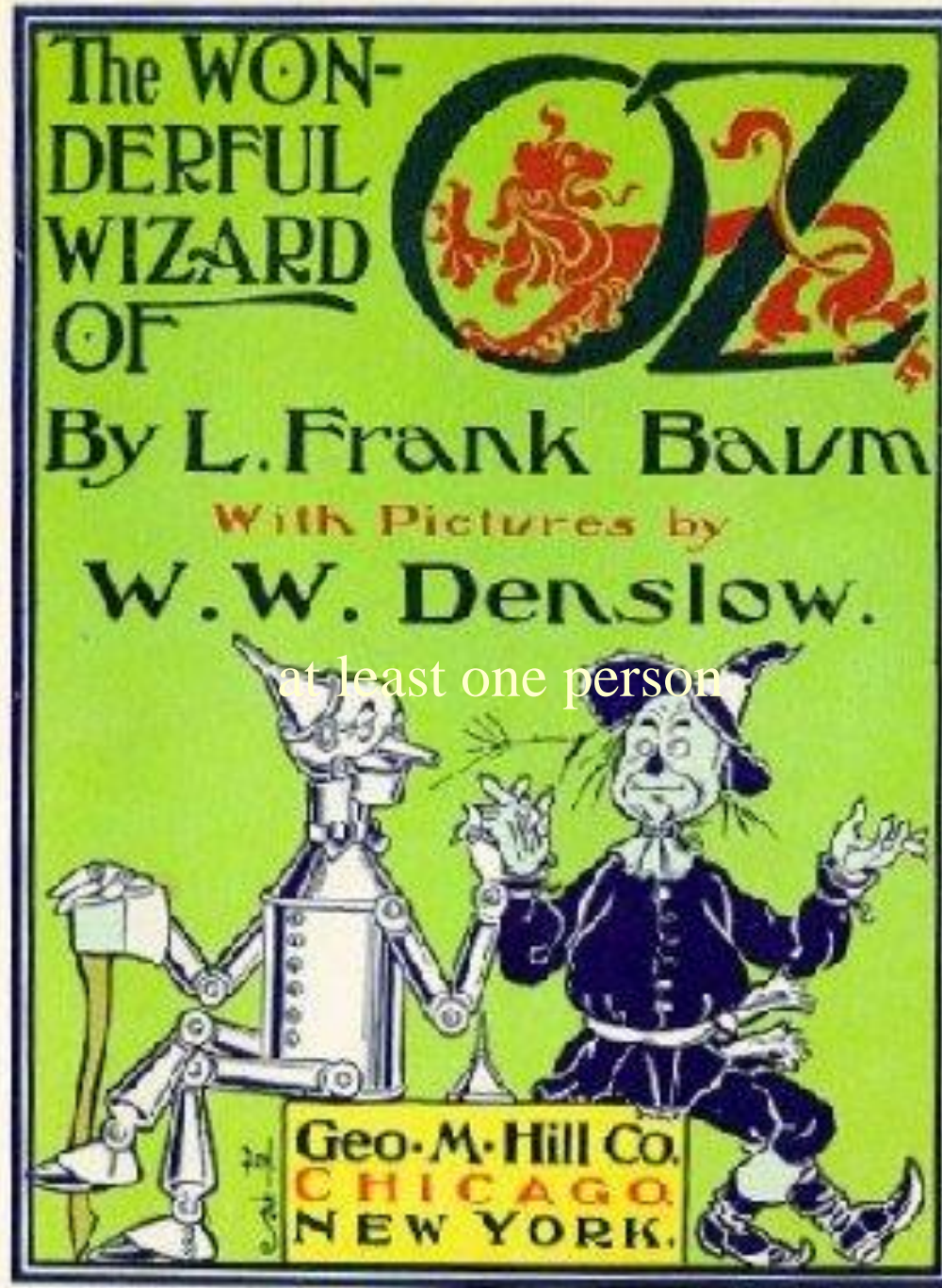


4th Edition

Parking Generation



Institute of Transportation Engineers



at least one person

TRIP GENERATION

3rd Edition - Volume 1 of 2

USER'S GUIDE

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THE GREAT OZ

A dramatic scene from the 1939 film 'The Wizard of Oz'. The Wicked Witch of the West's castle is engulfed in large, bright orange and yellow flames. In the background, the green, tiered spires of the Emerald City are visible under a dark sky. The overall tone is one of destruction and triumph.

HAS SPOKEN

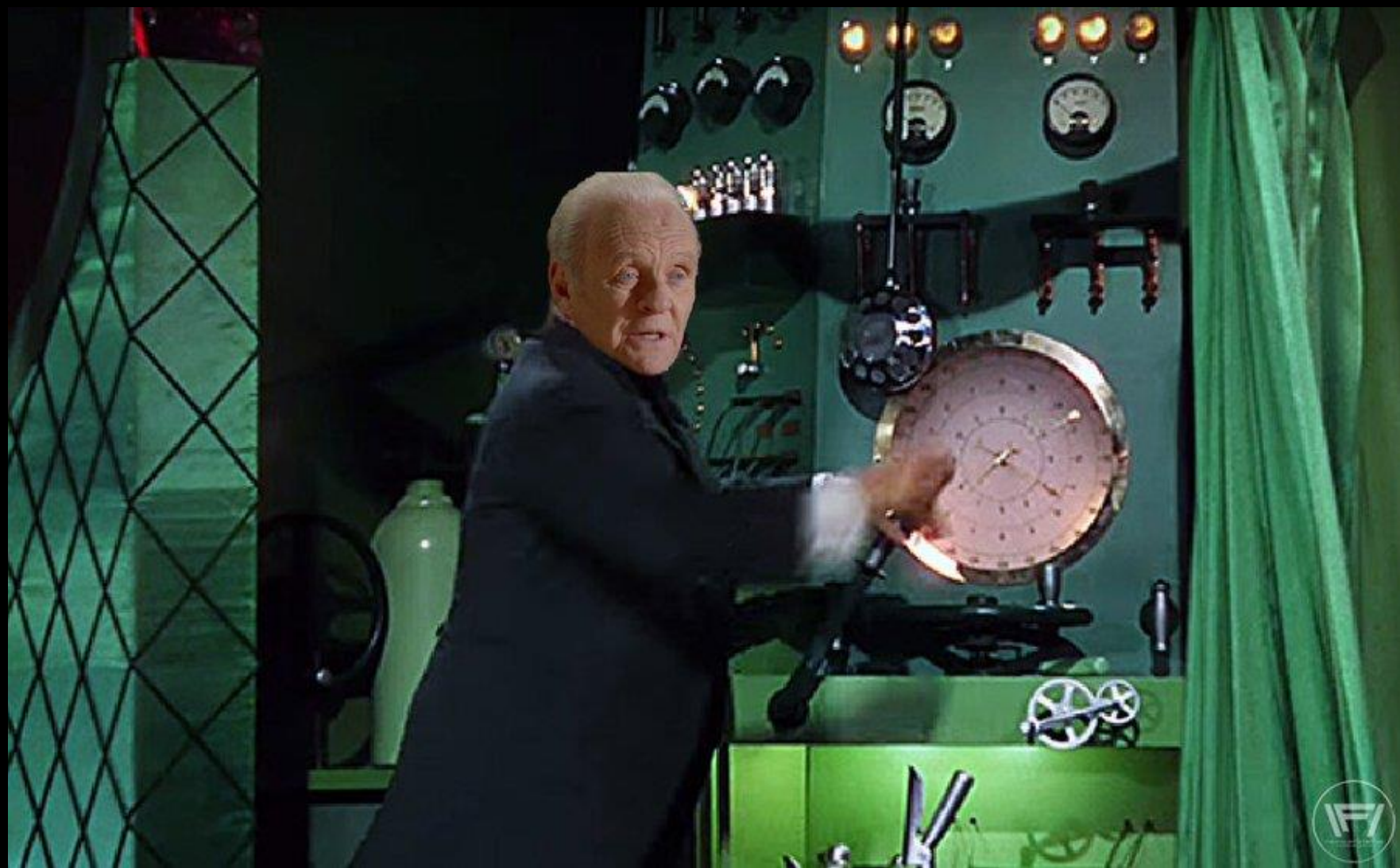
A man in a dark suit is seen from behind, operating a large, ornate machine. The machine has a prominent red globe in the center and various dials and pipes. A green, patterned curtain hangs behind the machine, partially obscuring it. The scene is set in a room with green walls and a large, ornate chandelier.

**Pay no attention
to the man behind the curtain**

quickmeme.com

I have been making believe . . . I have fooled everyone so long that I thought I should never be found out . . . but how can I help being a humbug when all these people make me do things that everybody knows can't be done?

The Wizard of Oz



Removing off-street parking requirements will:

Increase the supply and reduce the cost of housing

Reduce the cost of everything else except parking

Improve urban design

Reduce traffic congestion

Reduce air pollution

Reduce energy waste

Reduce greenhouse gas emissions

What's the downside?

Drivers will have to pay for their parking.

Cities will have to manage their curb parking.

Can cities remove parking requirements?











The solution is in the site.





ONE WAY

Grand



9th St

ONE WAY

ONE WAY

01/01/2011

Effects of building job-adjacent housing on parking lots

Create jobs

Increase the housing supply

Reduce time spent commuting

Reduce spending on cars and fuel

Reduce traffic congestion and air pollution

Increase the demand for smart parking technology

Slow climate change

What are the downsides?

Drivers will have to pay for their parking.

Cities will have to manage their curb parking.

Cities are removing their parking requirements

Berkeley

Buffalo

Hartford

Mexico City

Minneapolis

San Francisco

South Bend

Winnipeg

All of New Zealand

Two Futures

1. Change nothing.

Require ample off-street parking.

Keep curb parking free or cheap.

Put any parking meter revenue into the city's General Fund.



\$12,998 OR 0% OR \$178/mo

Graduate
Program

\$1,000

If you're a recent or soon-to-be university college or CEGEP graduate, you can earn an additional \$1,000 off the price of your brand new vehicle.

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Second Future

1. Charge performance-based prices for curbside parking.
2. Use the revenue to improve neighborhoods.
3. Remove off-street parking requirements.

A person is shown from the chest up, wearing a bright yellow t-shirt. On the chest is a black graphic of a vertical parking sign. The sign contains the text 'ALL MAY PARK ALL MUST PAY' in a standard font, followed by 'ALL!', 'MUST!', and 'PAY!' in a larger, bold, sans-serif font. The person's hands are visible, with the left hand wearing a black wristwatch. The background is plain white.

ALL
MAY
PARK
ALL
MUST
PAY
ALL!
MUST!
PAY!

Pan-Ideological Support for Parking Reforms

A yellow diamond-shaped road sign with a black border. The text "BEAR LEFT" is written in bold, black, sans-serif capital letters, centered on the sign.

**BEAR
LEFT**

A yellow diamond-shaped road sign with a black border. The text "KEEP RIGHT" is written in bold, black, sans-serif capital letters, centered on the sign.

**KEEP
RIGHT**

Political support for market-priced curb parking, parking benefit districts, and no off-street parking requirements

Liberals will see that it increases public spending.

Conservatives will see that it relies on markets and reduces government regulation.

Environmentalists will see that it reduces energy consumption, air pollution, and carbon emissions.

Businesses will see that it unburdens enterprise.

New Urbanists will see that it improves urban design and enables people to live at high density without being overrun by cars.

Libertarians will see that it increases the opportunities for individual choice.

Property-rights advocates will see that it reduces regulations on land use.

Developers will see that it reduces building costs.

Residents will see that it pays for neighborhood public improvements.

Affordable housing advocates will see that it reduces the cost of building new housing.

Neighborhood activists will see that it devolves public decisions to the local level.

Local elected officials will see that it reduces traffic congestion, encourages infill redevelopment, and pays for local public services without raising taxes.



All of us, if we are reasonably comfortable, healthy and safe, owe immense debts to the past.

There is no way, of course, to repay the past. We can only repay those debts by making gifts to the future.

Jane Jacobs

We--you and I, and our government--
must avoid the impulse to live only for
today, plundering, for our own ease and
convenience, the precious resources of
tomorrow.

Dwight Eisenhower

As our case is new, so must we think anew,
and act anew.

Abraham Lincoln

Smart Parking

Reform depends
on leadership
from all of you.



The High Cost of Free Parking

DONALD SHOUP