PLANNING BOARD
Tuesday, January 3, 2023
Regular Meeting at 7:30 PM

In person at Hanover Town Hall 41 S. Main St. and via Zoom
Meeting ID: https://zoom.us/j/820154300

For phone access, dial: To dial in, call: 1 646 876 9923, then dial the Webinar ID: 820 154 300 followed by #, then press # again.
International numbers available: https://zoom.us/u/adKnM0ltwp

1. Discussion of proposed zoning amendments
2. Workshop on Site Plan Regulations Amendments
3. Update on Sustainability Master Plan
4. Minutes November 1, 2022 and December 6, 2022
5. Other Business
6. Adjourn

MEETING MATERIALS:

Correspondence attached:

Proposed zoning amendments support information
Minutes November 1, 2022 and December 6, 2022

ALL ARE WELCOME TO ATTEND PLANNING BOARD MEETINGS

Conduct of Public Hearings:

Please use the link below to join the Planning Board meeting:
https://zoom.us/j/820154300
To dial in, call: 1 646 876 9923, then dial the Webinar ID: 820 154 300 followed by #, then press # again.
Computer attendees- to speak, you will need to use the raise hand icon.
Phone attendees -to speak, you will need to raise your hand by pressing *9. The moderator will then unmute and introduce each participant wishing to speak. Please note that there will be some lag time between the introduction and the unmuting of each participant.
Short Name of Proposal: Signage amendments

HANOVER PLANNING BOARD
Zoning Amendment Proposal Form
(Updated December 19, 2022)

The Planning Board would appreciate it if you would submit to them any proposed zoning amendment by using this form, which is designed to enable the Board to have consistent information about all zoning amendment proposals. If you need more space, please attach additional pages.

1. Name of Proponent: Joanna Whitcomb, Dartmouth College Director of Campus Planning
Address: 4 Currier Place, Hanover, NH 03755
Telephone: 603.646.9852
E-mail: Joanna.Whitcomb@Dartmouth.edu

2. Statement of Problem:
(What do you see as the problem? Why is it a problem? Why is a change desirable? Please provide specific examples)

This zoning proposal addresses two problems – (1) the allowable signage for places of assembly and institutional buildings under Section 715.2(C) is insufficient for buildings fronting on multiple public streets, and (2) the sign regulations have not been updated to reflect sign technology advancements, specifically electronic marquees.

1) Section 715.2(C) allows a maximum of two signs for places of assembly and institutional buildings. For buildings with frontage on more than one public street, a maximum of two signs is insufficient to create an inviting presence on the adjacent public streets and identify the building’s function to both pedestrian and vehicular traffic. In contrast, Section 715.3 (applicable to the B and D Districts) allows a varying total sign square footage for each street upon which the building has frontage.

This limitation is specifically impacting Dartmouth’s renovation of the Hopkins Center for the Arts. In an effort to create an inviting street presence on both East Wheelock Street and Lebanon Street, additional signage is required to identify the building and the numerous public entrances.

2) As technology has advanced, electronic marquees have become more commonly utilized by theatres. They provide an attractive means to communicate information, especially for announcing programming that frequently changes and requires signage to change along with it. A prohibition on
utilization of this technology places unnecessary limitations on theatres to effectively communicate their programming and ultimately serve the community. Permitting utilization of this technology, only for theatres where the use of a marquee is customarily incidental to their use, will allow for limited use of this technology in circumstances where it is most needed and most effective.

This limitation is specifically impacting Dartmouth’s renovation of the Hopkins Center for the Arts. The current marquee on the “Top of the Hop” balcony rail has been in place for over fifty years. Utilizing the marquee to communicate programming requires changing panels of individual letters which are hung up on the railing to inform the public of the nature of the programming currently put on at the Hopkins Center. This antiquated technology places unnecessary limitations on the ability to effectively communicate programming, due to both character limitations and the work required to change messaging. Dartmouth would like to update this technology to a new electronic marquee to communicate to the public more effectively, and to better support the ongoing programming happening at the Hopkins Center. The new marquee will also align more closely with the modern aesthetics of the building and will allow for more attractive messaging than is currently possible with the panels of individual letters.

3. Narrative Description of the Proposed Solution to the Stated Problem:

(What in the Zoning Ordinance are you proposing to change? How and why would this address the problem? Please use ordinary English, legalese not desired) Please attempt to complete the following three parts; please feel free to consult with the Planning and Zoning Department Staff:

1) To address the issue of the number of signs permitted, this proposal seeks to add language to Section 715.2(C) to increase the number of signs permitted for places of assembly and institutional buildings on sites having frontage and points of entry from more than one public street.

2) To address the current prohibition against the utilization of electronic marquees, this proposal seeks to add a new section under “Article VII, Accessory Uses” to add electronic marquees as an accessory use permitted by special exception in connection with a principal use as a theatre, whereby the use of a marquee to announce programming and events is customarily incidental to such use. The proposal also seeks to add a new definition of “Theatre” and add Theatre use to the I and D zones.

4. Relationship to the 2003 Adopted Master Plan:

(How does your proposed change support the Master Plan? Please cite specific references)

1) The proposed change supports several goals and policies contained within “Chapter 9: Business and the Economy”, specifically:

   Community Values and Goals (Chapter 9, Page 1)

   • Business prosperity promoted through cooperation among an active Chamber of Commerce, Dartmouth College, the Town and business community.
• Continued vitality of Dartmouth College, whose students, employees and visitors provide significant support for the local economy.

Business Policies and Recommendations (Chapter 9, Page 7-8)

• Maintain and enhance a vibrant downtown.
• Maintain existing desirable downtown attributes such as its village scale and character.

2) The proposed change supports the same elements under “Chapter 9: Business and the Economy” as the preceding proposal, and also specifically supports an item in “Chapter 14: Implementation”:

Regulatory Change, Site Plan Review Regulations (Chapter 14, Page 2)

• Update sign standards in consideration of new designs.

5. Zoning Ordinance Sections and Paragraphs:

(Please list which sections and paragraphs of the Zoning Ordinance would be changed or affected by your proposal)

1) Article VII, Accessory Uses - Section 715.2(C)

2) Article VII, Accessory Uses – new section 719

6. Detailed Proposal:

(current relevant language of the Zoning Ordinance with proposed additions (in bold italics) and deletions (stricken through) of text highlighted) The Planning and Zoning Department Staff will complete the following section:

1) Article VII, Accessory Uses – Section 715.2(C)

C. For places of assembly and institutional buildings not more than two signs are permitted, none of which may exceed thirty square feet in area on each of two sides and not located nearer to a street line than one-half the depth of the required front setback. *For places of public assembly having frontage and points of entry from more than one public street, two signs for each public street frontage shall be permitted along with one additional sign along the primary frontage.*

2) Article VII, Accessory Uses – new section 719

719 Electronic marquees

*Electronic marquees are an accessory use permitted by special exception in connection with a principal use as a theatre, whereby the use of a marquee to announce programming and events is customarily incidental to such use. Utilization of an electronic marquee shall be limited to displaying static text or images. Scrolling, flashing or animation effects shall be prohibited. Not more than one electronic marquee shall be permitted per principal use. The size of the marquee*
shall comply with the dimensional requirements of Section 715.2.C, except that lawfully existing signs utilized for this same purpose shall be grandfathered with respect to the dimensional requirements.

Add new definition to Article III – Section 302

Theatre: a building or a portion of a building approved for use for motion pictures, dramatic, operatic, or other artistic or cultural performance, and may include food and beverage concessions.

Add Theatre use to the I and D zones [Article IV – Sections 405.2(B) and 405.6(B)]

7. Staff Review, Comments, and Recommendations

8. Planning Board Action:
Short Name of Proposal: **Institution District Student Residences**

**HANOVER PLANNING BOARD**

**Zoning Amendment Proposal Form**

*Updated December 20, 2022*

The Planning Board would appreciate it if you would submit to them any proposed zoning amendment by using this form, which is designed to enable the Board to have consistent information about all zoning amendment proposals. If you need more space, please attach additional pages.

1. **Name of Proponent:** Joanna Whitcomb, Dartmouth College Director of Campus Planning
   
   **Address:** 4 Currier Place, Hanover, NH 03755
   
   **Telephone:** 603.646.9852
   
   **E-mail:** Joanna.Whitcomb@Dartmouth.edu

2. **Statement of Problem:**
   
   (What do you see as the problem? Why is it a problem? Why is a change desirable? Please provide specific examples)

   Student residences in the Institution (I) District are currently classified as a use allowed by special exception. This classification seemingly conflicts with the objective statement of the Institution District, which reads, in part, “In addition to the normal institutional uses in this area, certain complementary and support facilities are desirable as special exceptions.” Insofar as student residences are an integral and normal use of a college institution, it should follow that they should be classified as a permitted use.

   Additionally, only allowing student residences by special exception adds time, expense, and uncertainty to the approval process. As Dartmouth College embarks on a comprehensive 10-year housing renewal program to renovate, replace, and expand existing student residence buildings, the special exception process presents an obstacle in planning for timely execution of these much needed improvements. In addition to addressing issues such as accessibility, health and safety, and energy efficiency, improving student housing on the Dartmouth campus can also help ease the rental housing availability for non-students and reduce upward pressure on rental rates in the community.

3. **Narrative Description of the Proposed Solution to the Stated Problem:**
(What in the Zoning Ordinance are you proposing to change? How and why would this address the problem? Please use ordinary English, legalese not desired) Please attempt to complete the following three parts; please feel free to consult with the Planning and Zoning Department Staff:

At this time, this proposal simply seeks to establish that student residence use is permitted only for renovation, replacement, or expansions resulting in less than a 35% increase in total building footprint. The use would remain allowed by special exception for new development and expansions resulting in a 35% or more increase in total building footprint. This distinction will ensure that major expansions of student residence buildings as well as new student residence development will continue to be reviewed under the special exception criteria.

The proposal seeks to amend Section 405.6(B) to add “Student residence” to the Permitted uses column, while also retaining it in the Uses allowed by special exception column. Additionally, a footnote would be added to student residence (similar in concept to the footnote included in the BM District) to indicate that the use is permitted only for renovation, replacement, or expansions resulting in less than a 35% increase in total building footprint, and is allowed by special exception for new development and expansion resulting in a 35% or more increase in total building footprint.

4. Relationship to the 2003 Adopted Master Plan:

(How does your proposed change support the Master Plan? Please cite specific references)

The proposed change supports several goals and policies contained within Chapter 8: “Housing” and Chapter 10: “Hanover’s Institutions”, specifically:

Policies and Recommendations (Chapter 8, Page 10)

- Support the College’s program to build and to encourage on-campus housing for 90% of its undergraduate students, to provide more graduate student housing.
- Encourage the College to build on-campus housing for more than 90% of its undergraduate students.

Key Future Hanover/College Issues (Chapter 10, Page 6)

- **Campus housing** Reconstruction of dormitories for handicapped accessibility and improved fire safety has reduced the number of on campus “beds”. Decompression, or a decrease in the number of students in double or triple rooms, also contributes to a shortage of on-campus housing. This shortage results in pressure on the Hanover rental housing market limiting the housing options for non-students in Town. The College should continue to pursue its dormitory development program to enable more students to live on campus.

5. Zoning Ordinance Sections and Paragraphs:

(Please list which sections and paragraphs of the Zoning Ordinance would be changed or affected by your proposal)
Section 405.6(B)

6. Detailed Proposal:
(current relevant language of the Zoning Ordinance with proposed additions (in bold italics) and deletions (stricken through) of text highlighted) The Planning and Zoning Department Staff will complete the following section:

Amend Article IV, Section 405.6(B)

Permitted Uses:

*student residence*¹

Uses allowed by special exception:

*student residence*²

¹ *Use is permitted only for renovation, replacement, or expansions resulting in less than a 35% increase in total building footprint. Applications under this category shall be exempt from the parking requirements set forth in Article X.*

² *Use is allowed by special exception for new development and expansions resulting in a 35% or more increase in building footprint.*

7. Staff Review, Comments, and Recommendations

8. Planning Board Action:
302 Definitions

accessory use or building
A building or use subordinate, and or, in light of the general and specific purposes of the ordinance, reasonably incidental and customarily associated with the principal use and structure on the same lot. The term “accessory building”, when used in connection with a farm, shall include all buildings customarily used for farm purposes (see Section 707).

downtown residential
Residential uses in the Downtown district, which include and are limited to one-family dwelling, two-family dwelling, multi-family dwelling, and multi-family units as part of downtown commercial use.

405.13 Main Wheelock District (MWD)

... 

C. Area and dimension:
(1) Minimum lot size: 10,000 square feet
(2) Minimum front setback: 10 feet
(3) Minimum rear setback:
   - adjacent to I district: 0 feet
   - adjacent to a residential district: 10’
(4) Yard: each building must have at least a 5-foot side yard
(5) Building front wall in build-to area: For every building adjacent to the front property line, there is a requirement that part of the building front wall be constructed in the build-to area. Existing buildings within the front setback are not required to comply with build-to area provisions set forth below. The difference in the distance between the part of the building front wall in the build-to area and the part of the building front wall out of the build-to area must be at least six feet.

Subsection 5 continued next page
Senior high school | 1 for each 1.5 employees and 1 for each 25 students based on the highest expected average occupancy of students and employees
---|---
Other schools and colleges for floor space in uses not listed above | 1 for each 2 employees or staff members to be accommodated

*This is also the maximum number of spaces that are allowed per business*

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### 519 Rentals

519.1 The owner of record of a property containing one or more rental units is solely responsible for compliance with the provisions of this section.

519.2.1 A non-owner-occupied one-family or two-family dwelling or unsprinklered multifamily unit(s) may be rented as a residence for an unrelated family limited to three persons or a related family. No tenant may rent any space to additional roomers.

519.2.2 Fully sprinklered multifamily units may be rented as a residence with a maximum occupancy load of one person per 200 gross square feet, as defined in the current NFPA 101, of unit space. No tenant may rent any space to additional roomers. (Chapters 30 and 31 of NFPA 101)

519.3 Rooms without separate cooking facilities may be rented in any owner-occupied dwelling unit to not more than three non-transient persons. Rooms may not be rented in non-owner-occupied dwelling units. Off-street parking adequate for occupants of the rented rooms must be provided pursuant to Article X.

### Definition
downtown residential

Residential uses in the Downtown district, which include and are limited to one-family dwelling, two-family dwelling, multi-family dwelling, and multi-family units as part of downtown commercial use. (Should this use be prohibited on the first floor?)
### Schedule of minimum requirements for off-street parking spaces

**1002.1** In all districts off-street parking spaces must be provided as follows:

<table>
<thead>
<tr>
<th>Use categories</th>
<th>Minimum number of off-street parking spaces required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessory dwelling unit</td>
<td>None required 4 additional parking space</td>
</tr>
<tr>
<td>Bed &amp; breakfast</td>
<td>2 for the dwelling unit plus 1 for each bedroom for guests</td>
</tr>
<tr>
<td>Downtown civic</td>
<td>1 for each 600 square feet of gross floor area</td>
</tr>
<tr>
<td>Downtown commercial</td>
<td>1 for 400 square feet of gross floor area</td>
</tr>
<tr>
<td>Downtown lodging</td>
<td>0.75 for each living accommodation</td>
</tr>
<tr>
<td>Downtown residential</td>
<td>4.0.5 for each dwelling unit</td>
</tr>
<tr>
<td>Eating and drinking establishments</td>
<td>1 for 400 square feet of gross floor area plus 1 for every 10 restaurant seats; additional spaces are not required for outdoor seating that does not exceed 50% of the permitted indoor seating.</td>
</tr>
<tr>
<td>Institutional dining facility</td>
<td>1 for each 2 persons to be employed in the institutional dining facility</td>
</tr>
<tr>
<td>Restaurant in MWD</td>
<td>1 space per business^</td>
</tr>
<tr>
<td>Fraternities and sororities</td>
<td>1 for each 2 beds</td>
</tr>
<tr>
<td>Residential buildings for students or personnel of an institution</td>
<td>1 for each 4-8 beds</td>
</tr>
<tr>
<td>Funeral homes</td>
<td>1 for each 75 square feet of public floor space</td>
</tr>
<tr>
<td>Hospitals, nursing, and convalescent homes</td>
<td>1 per 3 beds and 1 for each 1.5 employees based on the highest expected average employee occupancy</td>
</tr>
</tbody>
</table>

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^ For indoor and outdoor seating with total seating not exceeding 50%.
<table>
<thead>
<tr>
<th>Use categories</th>
<th>Minimum number of off-street parking spaces required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roomer</td>
<td>1 for each roomer</td>
</tr>
</tbody>
</table>

- Industrial, manufacturing, storage, wholesale, nursery, kindergarten, elementary and middle schools: 1 for each 1.5 employees, based on the highest expected average employee occupancy.
- Laundromat in MWD: 1 space per business
- Medical center: 1 for each employee.
- Multi-family in MWD: .5 space per efficiency/studio/one bedroom unit; 1 space per two bedroom or larger units; and 1 space assigned to a vehicle available for rent from a vehicle sharing service may replace any 4 required spaces.
- Multi-family, PRD: .5 space per efficiency/studio/one bedroom unit; 1 space per two bedroom or larger unit; 1.5 per dwelling unit for the first bedroom and 0.5 spaces for each additional bedroom with total spaces equaling the next highest full space.
- Neighborhood retail sales in MWD: 1 space per business
- One-family dwelling unit: 2 per unit.
- Places of assembly, the capacity of which cannot be measured in terms of seats (covered skating rinks, bowling alleys, etc.): 1 for 500 square feet of gross floor area exclusive of storage areas.
- Property management office in MWD: 1 space per business
- Retail sales, commercial services, and office: 1 for 400 square feet of gross floor area.
- Retail sales of furniture, automobiles, of nursery stock and such other goods in such use as usually involve extensive display areas in relation to customer traffic: 1 for 500 square feet of gross floor area and of display area outside the building.
- Rooming house, motel, hotel: 1 for each living accommodation.
Zoning Amendment Calendar  
Town Meeting 2023  

Tuesday, **November 15**- Deadline for submission of ideas for zoning amendments  

Tuesday, **December 6** - Planning Board discussion of zoning amendment ideas  

Tuesday, **January 3**- Deadline for Planning Board to decide to take on amendments suggested by others  

**Proposed Hanover Public Hearing Schedule**  
Thursday, **January 26**, post and publish notice of first public hearing  
Tuesday, **February 7**, First Public Hearing  

Thursday, **February 23**, post and publish notice of final public hearing  
Tuesday, **March 7**, Second Public Hearing, including petitioned zoning amendments  

**Statutory Limitation Dates given Hanover’s Tuesday meeting and publishing schedule**  
Monday, **January 9**- First day to accept petitioned zoning amendments  

Wednesday, **February 8**- Last day to accept petitioned zoning amendments  

Thursday, **March 2**- Last day to post and publish notice of first public hearing  

Tuesday, **March 14**- Last day to hold the first public hearing  

Thursday, **March 16**- Last day to post and publish notice of final public hearing  

Tuesday, **March 28**- Last day to hold final public hearing and determine final form of amendments  

Tuesday, **April 4** - Last day to deliver official copy of the final amendments to Town Clerk  

May 9- Town Meeting
Buffalo Becomes First City to Bid Minimum Parking Goodbye

The city is overhauling its archaic zoning regulations, but does the move help its citizens as much as it helps developers?

By Linda Poon
January 9, 2017 at 1:26 PM EST

In overhauling its zoning code for the first time since 1953, Buffalo, New York, has become the first major city to completely remove outdated minimum parking requirements. (Other cities have done so, too, but only in certain districts or neighborhoods.) That means developers there will no longer be required to build a certain number of parking spaces for commercial and residential projects, regardless of whether there are mass transit options nearby or if the tenants even need them.
Now, according to *The Buffalo News*, projects above 5,000 square feet will require parking analysis that factors in alternative transportation options in the area. It’s all part of a six-year-long initiative called the Buffalo Green Code, or the Unified Development Ordinance, which the city council unanimously passed last week and Mayor Byron W. Brown signed into law Wednesday. It rewrote the zoning and land-use regulations to make them simpler and easier to understand. The new code also follows a relatively new concept called form-based zoning, which emphasizes the relationship between public space and buildings.

“Conventional zoning doesn’t begin with what we want this city to look like in terms of the ‘public realm,’“ says Robert Steuteville, editor of the *Public Square* journal* at the Congress for the New Urbanism. “What is it like for a human to walk around in a public space, and what kind of buildings do you want around you that would then define that space?”

Buffalo, like many U.S. cities, historically followed those conventional zoning codes from as early as the 1920s, which put heavy emphasis on making room for cars—hence the minimum parking requirements. “The automobile population really soared in the 1920s and early ‘30s, and curb parking was free. Very quickly all the on-street parking became very scarce, so you can see that any picture of an old city taken in the 1930s shows all the sidewalks completely lined with cars,” says Donald Shoup, an urban planning professor at UCLA and the author of the 2005 book *The High Cost of Free Parking*. “Planners thought the solution would be to require new buildings to have ‘enough’ to satisfy the demand. It seemed like quite a miracle; it didn’t cost the city anything and it hid the cost of parking.”
Once considered one of the largest metropolises in the U.S., with some 573,000 residents at its peak in
the 1950s, Buffalo’s population headed toward a dramatic downward spiral (the latest count by the
Census Bureau puts the current population at a little under 259,000.) By the 1950s, when Buffalo
implemented zoning codes that included minimum parking requirements, the city was undergoing
major urban revitalization efforts that emphasized easy car access for suburbanites.

“It was fascinating to look at maps that they showed how much of downtown Buffalo was devoted to
parking,” says Shoup, who was a visiting professor at the University of Buffalo in 2010. “People have
done this for a number of cities, coloring in all the parking lots red and it turns out most of
[downtown] Buffalo was red.”

But as the years passed, the codes would prove to hurt more than it helped. Following a suburban
model of development, the city allowed stores to be built on huge lots without pedestrian access,
rather than promoting walkable neighborhoods. And sidewalk dining at neighborhood restaurants, for
example, was technically illegal without a zoning variance. And with the parking requirement, Shoup
argues, everyone—including those who can’t afford a car—end up paying for parking.

It also didn’t help that parking requirements many cities across the U.S. were rarely grounded in
factual research, says Steuteville. In fact, Shoup’s book notes they amounted to little more than a
“collective hunch” of how many spots a building needs, and often these numbers are exaggerated. Local officials often copied what other cities were doing without understanding the reasoning first.

Then there was the issue of historical preservation. “The parking requirement prevented the preservation of some wonderful buildings that were just left to decay and even torn down,” Shoup says. “In more neighborhood commercial areas, if anybody wanted to convert an old building into a restaurant, which has a high parking requirement, the only way they could do it would be by tearing down one of the buildings on either side to provide the parking.”

While Buffalo may be the first to implement a citywide removal, both Shoup and Steuteville say the move is only part of a larger, national movement that’s already ongoing. It would be hard-pressed to find an urban planner who would argue that parking hasn’t done harm to a city, according to Shoup. A 2015 crowdsourced map by the nonprofit Strong Towns shows that dozens of cities—mostly small ones—across the U.S. have either removed parking requirements in certain areas (green pins), lowered them for certain building uses (blue pins), or are currently discussing the move (orange pins).

When asked about the potential of removing parking minimums, Shoup points to a particular case in 1999 Los Angeles. The financial district of L.A. is filled with 19th century offices that, at the time, were mostly vacant above the ground floor. They couldn’t be restored as housing because the rule then was that each unit needed at least two parking spaces. “A planner in 1999 came up with the Adaptive Reuse Ordinance saying that any historical buildings can be converted into housing without requiring any new parking. People thought this would be a disaster,” he says. “But the ordinance was passed, and within eight years, 57 historical office buildings were fully restored into housing and they created a terrific buzz downtown.”

Yet despite the success of the L.A.’s Adaptive Reuse Ordinance, some critics say it didn’t benefit the poor. Instead, they argue, it helped spur gentrification and homelessness in the city’s downtown area, turning it into what Los Angeles Magazine editor Ed Leibowitz called a “hipster paradise.” Developers built artsy lofts to attract the wealthy while providing very little—if any—affordable housing units for low-income families.

Now critics of the Green Code worry the same could happen to Buffalo as the city’s push for urban revival increases rent prices. While form-based zoning promotes density and development, which are economical for cities like Buffalo, “it doesn’t necessarily guarantee that the types of development taking place are going to allow for either the retention or increase in affordable units,” says Robert Silverman, a urban planning professor who studies inequality in inner-city housing markets at the University of Buffalo.

He predicts that Buffalo may end up following the path of Miami and Denver—the only two other cities to adopt form-based code, and are facing affordable housing crises. “Even though Buffalo is losing population, its Green Code really focuses on dense development in a much smaller footprint, and
having less density in older neighborhood outside of it,” Silverman says. “So it essentially creates more demand in a smaller area for development to take place, which has an upward pressure on the cost of commercial and retail property and also on housing.”

The intention for fair housing may be there, but until it’s spelled out in Buffalo’s code, it hinges on political support.

Prior to one of the last public meetings to pass the new ordinance in December (the city’s had some 230), residents held a rally urging the council to write inclusionary zoning into the code. That would require that a percentage of units in new market-rate residential developments be affordable for low- and moderate-income residents. In the end, though, the Green Code passed without such a provision. Although, the city has said that it’s in the midst of conducting a roughly year-long affordable housing study that started in May, and plans to pass an ordinance some time this year.

The council also assures that the Green Code allows for more public input for new development, though Silverman warns that could also give NIMBY and historic preservation activists more opportunities to publicly resist proposals to, say, increase building heights in historic areas—to the detriment of fair housing advocates. Plus, the intention for fair housing may be there, but until it’s spelled out in Buffalo’s code, it hinges on political support. “If a new mayor came into the power who is less amenable to those types of policy,” Silverman says, “without the mandate written into the code, all those kind of goals can go away very quickly.”
Overall, Silverman agrees with Shoup and Steuteville that the Green Code, with its removal of minimum parking requirements, is a step in the right direction. Steuteville even thinks Buffalo’s move, if successful, can embolden other cities to push for form-based codes. “As the city turns itself around with the help of this code,” he says, “it could be a model for cities from Cleveland, Toledo, Detroit to Milwaukee, Erie, or Rochester—all these cities that have been declining.”

Yet, Silverman says, “there is still work to be done.”

*CORRECTION: A previous version of this article misstated Robert Steuteville as the editor of Places Journal. **He is the editor of Public Square.**
Parking requirements and foundations are driving up the cost of multifamily housing

Hannah Hoyt and Jenny Schuetz Tuesday, June 2, 2020

Editor's Note:

This piece is the third in a four-part series. It summarizes findings from a report written by Hannah Hoyt, published by Harvard’s Joint Center for Housing Studies and NeighborWorks America.

Laying the literal groundwork for apartment buildings is expensive—and often unpredictable. Clearing the site and preparing the ground can reveal previously unknown obstacles that must be dealt with before construction begins. On average, site preparation and substructure work amounts to 5% to 15% of hard costs, but these are often difficult to estimate accurately in advance.

“You can’t control costs until you get out of the ground,” one contractor told us.

In this article, we explore strategies to improve the efficiency of constructing apartment buildings through cost savings in site preparation, substructure work, and parking. This is the third piece in a series on how innovations in design and construction can reduce the costs of multifamily housing. Prior articles discussed cost categories for different building typologies and proposed strategies to save money on land and soft costs.

A key question we address in this piece is whether and how zoning reforms that reduce minimum parking requirements could lower the cost of building apartments.
Site preparation and substructure work can add unexpected costs

Site prep is the stage of development in which land is readied for new construction. Infill sites—where many affordable housing units are built—often have some preexisting use that must be demolished or otherwise cleared. Even redeveloping surface parking lots means scraping up the concrete or asphalt.

In some cases, the previous use may have contaminated the soil, requiring remediation. Steeply sloped or uneven land parcels may have to be leveled. While infill sites typically don’t require new installation of water and sewer infrastructure (a major cost for greenfield development), developers may have to install drainage and “right-size” utility hookups to accommodate large apartment buildings.

After the site has been cleared and prepared, the next stage involves excavation to construct the building’s foundation. Foundations are designed to respond to a range of site- and building-specific criteria, and can be broadly classified as shallow or deep. For example, a low-rise building on soil with a high bearing capacity (the capacity of the soil to support the loads applied to the ground) would use a less costly, shallow foundation. A high-rise building—which has higher, more concentrated loads—would require more significant excavation to support a deep foundation (such as one that transfers loads via steel or concrete piles, which are column-type elements). Generally, shallow foundations cost less than deep foundations because they require significantly less excavation.
While developers and contractors agree that controlling costs is difficult until a project is “out of the ground,” there are three strategies that could help. First, conduct due diligence on the site in advance, and run site prep concurrently with other tasks when possible. Second, prioritize building forms that permit simple, shallow foundations. Third, local governments should update zoning regulations to reduce parking requirements, thereby reducing the amount of costly structured parking.

**Strategy 1: Run site prep concurrently with other tasks**

Time is money in real estate development, so speeding up the development process can result in cost savings. Typically, a developer will complete site prep work before moving on to the next stages of the project. But in some cases, it may be possible to conduct site prep concurrently with a public RFP process, off-site construction, or above-grade building design. In instances where land is purchased from a local government (as is commonly the
case for affordable housing projects), the city itself could lead initial site remediation or preparation efforts during an RFP process. If developers are pursuing some off-site construction, such as modular or flat-pack construction of units, this work could occur in parallel.

**Strategy 2: Reduce foundation depth and complexity**

The type of foundation used for a new building depends on the building type (low-rise, mid-rise, or high-rise), site conditions, and soil type. Sloped sites may require special stepped foundations or retaining walls that add costs. Soils have different bearing capacities—for example, bedrock can bear a heavier load than sandy soil.

While the foundation type is generally nonnegotiable given these conditions, a site selection process that includes significant early-stage geotechnical work can help estimate costs of substructural work accurately. When possible, project teams working on low- and mid-rise housing can prioritize simple building forms and floor plans that enable regular (i.e., rectangular), shallow foundations. Because shallow foundations require less excavation, they are typically less costly and can be completed more quickly than deep foundations.

High-rise buildings and even many mid-rise buildings—especially in dense, urban areas—require deep foundations. Additionally, buildings with underground parking will require more extensive excavation and foundations. In these cases, it is especially helpful to spend more on upfront geotechnical work that gathers as much information as possible about site constraints, including the locations of underground utilities, transportation systems, and the conditions of nearby buildings’ foundations. This due diligence is critical to designing foundations as efficiently as possible, given site constraints.

**Strategy 3: Reduce regulatory requirements for off-street parking**

Building structured parking—spaces in an above- or below-ground garage, rather than surface parking—is expensive. A single unit of structured parking adds an average of $50,000 in per-unit costs, but costs can be higher in some metro areas. Costs increase significantly when parking is underground or requires multiple levels of structure.
Most local zoning laws stipulate a minimum number of off-street parking spaces that must accompany new housing. Revising these policies to reduce or eliminate parking requirements could substantially reduce the development costs of multifamily buildings, especially in locations that are well-served by public transportation. In locations where most households rely on cars for daily transportation, people may be unwilling to rent apartments in buildings that do not offer dedicated parking. Below, we consider some scenarios where reducing parking may be feasible, and examine what the cost savings could be.

The per-space cost of parking varies considerably. One level of surface parking is the cheapest option, but is unlikely to be feasible in dense, urban sites. Multiple levels of underground parking is the most expensive option, with several hybrid models in between. If local governments are strategic about reducing parking requirements, they could allow developers to achieve cost savings by using lower-cost categories (e.g., a single ground floor of parking, wrapped in retail or other ground floor uses, rather than two stories of exposed structured parking).
A good example of how reduced parking requirements can save money is Boston’s MetroMark development. MetroMark is a mixed-use, mixed-income, 283-unit housing development adjacent to a rail stop in the Jamaica Plain neighborhood, developed by the Brennan Group and John M. Corcoran & Company and designed by Utile. The project was permitted through the city of Boston’s Large Project Review process, which allows the local community to weigh in on project design, including parking.

With local support for transit-oriented development, the project secured a parking ratio of 0.6 spaces per dwelling unit, a significant decrease from the typical 1.5 parking ratio for similar buildings in the area. With this lower ratio, the project team was able to keep all parking at grade, avoiding costlier multilevel or underground parking. Mindful of the site’s prominent urban location, the design team reduced the visibility of the parking spaces by wrapping them in ground floor, small footprint retail spaces and residential units.[1]
Building mid-rise housing over one-story of parking in Boston

Entrance, aerial view and site plan of Metromark in Jamaica Plain, Boston

Source: Image and Drawing Credit: Utile
Some cities are introducing more flexibility into their zoning to encourage transit-oriented development, especially if it includes dedicated affordable units. For instance, Los Angeles’ Transit Oriented Communities (TOC) Affordable Housing Incentive Program encourages affordable housing development near transit through a tier-based incentive system. Affordable housing projects within a half-mile radius of a major transit stop can receive density bonuses and decreases in parking requirements, with larger incentives for projects that include more affordable units.

In some locations, consumers may demand parking—even if zoning doesn’t require it

Sites in core urban areas with reliable public transportation are obvious targets for reducing or waiving parking requirements. There is at least anecdotal evidence that parking is often oversupplied in dense, urban areas because of zoning requirements. In a survey of multifamily housing in metro area Boston, only 74% of multifamily residential parking spots were used.

But in many parts of the country, developers build on-site parking because that’s what potential consumers demand. Nationally, more than 85% of U.S. commuters drive to work, a percentage that is remarkably persistent over time. Even in large cities, most households have to drive relatively long distances to reach shopping, restaurants, and other amenities.

In places where consumers are willing to pay for off-street parking, developers will choose to build it. In places where consumers don’t value parking—and badly need more affordable housing instead—parking minimums are 20th century relics that deserve to be retired.

Footnotes

SHIFTING GEARS

Why Communities Are Eliminating Off-Street Parking Requirements—and What Comes Next
Columbus, Ohio, invented the first known off-street parking requirement for an apartment building in 1923. After nearly a hundred years, the results are in, and they’re not good.

Last year, an assessment of the local zoning code—commissioned by the city as part of a comprehensive code revision process—concluded that off-street parking requirements were “not effective” and “often poorly matched to true parking demand.”

That mismatch has gotten worse over time. Today’s parking requirements in Columbus are far higher than their cousins from the city’s midcentury zoning code. In 1954, an apartment building with 100 one-bedroom units was required to have 100 parking spaces; today it has to have 150. For a 2,500-square-foot restaurant, nine required parking spaces became 34, in the 90 percent of the city not covered by special overlay districts. These ratios are out of step with the local market, leading builders to request parking reductions more than any other type of zoning variance. City and regional plans have recommended reducing parking requirements and making them more consistent (LWC 2021).

Columbus is not alone. Across the United States, decades of similar parking requirements have led to a glut: researchers estimate that for every car in the country, there are at least three parking spaces—and some have suggested the number is closer to eight spaces.

This oversupply has created a host of problems: parking requirements can inflate housing costs, block buildings from being adapted to new uses, and contribute to sprawl, making additional driving (and parking) necessary. They create an administrative burden. And the impervious surfaces of parking lots increase the risk of flooding and contribute to the urban heat island effect.

But there is good news: of all the harms traditional zoning has inflicted on communities, parking requirements are the easiest to fix, said Sara Bronin, former chair of the Hartford, Connecticut, Planning and Zoning Commission. Bronin was at the helm in 2017, when Hartford became one of the first cities in the United States to eliminate residential and commercial parking mandates. The year before, city leaders had tested the waters by eliminating requirements in the downtown area, a move that yielded new development projects and new proposals for reuse. “Every community should be eliminating their parking requirements,” Bronin said.

Each year, more cities are eliminating or reducing such mandates. In 2021, cities from Minneapolis to Jackson, Tennessee, eliminated minimum parking requirements from their zoning codes. In the week that this article was drafted alone, cities from Spokane to Chicago to Burlington, Vermont, rolled back parking mandates.

Communities might reduce their parking requirements because they are trying to reinvent themselves by attracting new businesses and development, accommodate population growth with space-efficient infill, or focus more on transit and walkability. Regardless of the reason, parking reform advocates say this land use regulation could finally be on its way out.

“We’re going to look back at this as just this weird, late-20th century aberration,” predicts Patrick Siegman, an economist and planner who has been studying parking since 1992, including as a partner at the national transportation planning firm Nelson Nygaard. “We created something wildly inefficient.”

Across the United States, decades of off-street parking requirements have led to a glut: researchers estimate that for every car in the country, there are at least three parking spaces.
Hartford Leads the Way

Like many industrial cities in the United States, Hartford saw dramatic population decline during the second half of the 20th century. In 1960, half of the people working in Hartford lived there, many walking or taking transit to jobs downtown; by 1980, less than a quarter of its workforce called the city home. Many white residents had fled for the suburbs and the overall population was declining. The repercussions of this demographic and economic shift are visible in the city’s bounty of parking lots: to accommodate the increase in car commuters, the city essentially paved over swaths of its downtown.

As historian Daniel Sterner put it, “Hartford is famous for having so much torn down” (Gosselin 2013). Not even the city’s first skyscraper, built in 1912, survived the demolition boom. It was razed to make way for a taller office tower, but those plans were abandoned in 1990 as the country entered a recession. The prominent corner lot became, and remains, surface parking.

University of Connecticut Professor Norman Garrick and his team found that from 1960 to 2000, the amount of land dedicated to parking lots in the downtown business district tripled, nearly equaling the amount of land underneath all the adjacent buildings. “The increase in parking was part of the collapse of the city,” Garrick said. “It’s typical of a lot of American cities.”

Even without the research, there was little debate that Hartford had an oversupply of parking. “I don’t think every city needs a full-on parking history, or parking analysis,” said Bronin. “Most people should be able to just look around and say, ‘there’s a lot of parking in this city.’”

The overabundance of parking came at a great cost, Garrick’s team found. In a 2014 report, they estimated that the city was missing out on property tax revenue to the tune of $1,200 per downtown parking space, or about $50 million a year. That was a significant amount for a city whose downtown buildings were generating $75 million in annual tax revenue (Blanc et al. 2014).

Attracting investment is critically important for Connecticut’s capital city—and particularly challenging. More than half of the city’s real estate is nontaxable, because the land is owned by the government or nonprofit institutions. The rest is subject to the highest property tax rate in the state. Eliminating parking requirements citywide is one way to create a more flexible, inviting environment for development.

“It’s easy to say we have no parking minimums, as opposed to ‘what zone? ,” said Aaron Gill, current vice chair of Hartford’s Planning and Zoning Commission. The biggest hurdle now is convincing developers they have new options, Gill said. He encourages developers to revisit parcels they might have discounted in the past, and to review how much parking is actually being used in previous developments.
The strategy seems to be working. The quasi-public Capital Region Development Authority (CRDA) has funded more than 2,800 new homes downtown since 2012, aiming to build a critical mass of residents to support retail and other services. Mike Freimuth, executive director of the CRDA, said the new zoning code has helped reduce costs and increased the use of existing parking garages.

One of the CRDA projects, Teachers Village, involved converting an office building that had been vacant for 20 years into housing for area educators. Thirty percent of the apartments were designated as affordable. Prior to the code change, more than one parking space would have been required for each unit, but the renovated building has only 18 underground parking spaces for 60 households. The spaces are leased separately from the apartments, saving money for those who don’t need a parking spot. According to estimates based on U.S. Census data, more than 30 percent of Hartford households don’t even own a car (Maciag 2014).

Other redevelopment projects have cut deals with adjacent parking garages, which are also adapting to the new world of remote work, to provide an off-street parking option for residents for an additional fee. Two derelict commercial buildings on Pearl Street, which Freimuth used to joke were the largest pigeon coops in the state, went that route when the buildings were renovated into 258 new homes. A few blocks away, a former Steiger’s department store is being converted into 97 new apartments with commercial space below.

Eliminating parking requirements citywide is one way to create a more flexible, inviting environment for development: “It’s easy to say we have no parking minimums, as opposed to ‘what zone?’”

The CRDA is also involved in an ambitious project known as Bushnell South, which aims to convert a 20-acre area dominated by surface parking into a vibrant, walkable, mixed-use neighborhood with up to 1,200 apartments and townhouses, restaurants and retail, green space, and cultural attractions. The city was reviewing proposals from developers this summer with the goal of moving forward this fall. Although some developers have expressed concern that the city is building more residential space than the market can support, Freimuth is eager to proceed. “This land has been laying fallow for 50 years,” he told the Hartford Courant (Gosselin 2022). “Why do we have to keep on waiting?”

Planners hope to convert an area of downtown Hartford currently dominated by surface parking (left) into a mixed-use neighborhood known as Bushnell South (right). Credits (left to right): Mark Mirko/Hartford Courant, Goody Clancy/Bushnell South Planning Consortium.
The Benefits of a Citywide Shift

On the edge of downtown Fayetteville, Arkansas, a building that had stood vacant for nearly 40 years now houses a local restaurant with a rooftop patio. Down the road, a formerly abandoned gas station is back in use as retail space. The reuse of these once-forgotten properties was made possible several years ago, when Fayetteville's city council voted to remove commercial parking requirements citywide.

While most cities start with reducing parking mandates in a central business district, like Hartford did, planners in Fayetteville were fielding requests about properties throughout the city, and opted against defining a smaller boundary. At 44 square miles, Fayetteville is nearly 2.5 times larger than Hartford, with 70 percent of the population.

“As a city planner, you receive phone calls about what’s possible with this property,” Fayetteville planner Quin Thompson explained. “What I began to see was the same properties over and over again. Some of those properties were downtown, but a lot weren’t.” None of the parcels had enough space to meet the parking requirements in place at the time.

The planning staff approached the city council with the idea of eliminating commercial parking requirements citywide. Some of these properties were so constrained, they explained, it was impossible to imagine how they could be redeveloped under the current rules. They also said investors taking on the financial risk of a project were best suited to determine their own parking needs, and would act as a backstop even when the city was no longer regulating off-street parking spaces. In October 2015, Fayetteville’s city council agreed.

What happened next? “The buildings that I had identified as being perpetually and perhaps permanently unusable were very quickly purchased and redeveloped, and are in use right now,” said Thompson. “I can’t think of any that are still out there that I had used as case studies that haven’t been redeveloped.”

Thompson and his colleagues were right that the distinction between parking needs in a central city versus outlying neighborhoods can be arbitrary. In the lead-up to the removal of parking requirements in Edmonton, Alberta, in 2020, a citywide study of 277 sites found no clear geographic trend that related to how full parking lots were, even after factoring in variables like population density, walkability as measured by Walk Score, or drive-alone rate. Of all the sites surveyed, only 7 percent neared capacity at the busiest times of day. It was far more common for parking lots to remain half empty, as was the case for 47 percent of observed sites (Nelson Nygaard 2019).

In Fayetteville and other cities, eliminating parking minimums citywide has had another benefit: reducing administrative work and freeing up city staff to work on other things.”One of the
things you find in American cities is that they’ve got all of these college-educated planners, many of whom actually have graduate degrees, and what they’re doing is spending hour after hour processing parking variances,” explained Siegman.

Kevin Robinson was one of those planners, until he was hired as director of Planning and Development Services for Albemarle, North Carolina. To his surprise, the city had almost no parking requirements, having eliminated virtually all of them two decades prior. “However you came about it,” he recalls telling city officials, “I think you’re on the right track.”

Towns where he had worked previously had only reduced parking requirements in central business districts, not citywide. “From an administrative standpoint, it’s a heck of a lot easier to deal with,” said Robinson.

“Quite honestly, a lot of times [parking minimums] are very arbitrary numbers,” Robinson said. Now that he no longer has to enforce them, he has more time to spend on other aspects of development—including a downtown parking plan. He has plenty of data to rebut complaints that there isn’t enough parking. Even at peak hours, public parking never gets more than half full, his heatmaps indicate.

Robinson acknowledges that eliminating parking minimums wasn’t a cure-all: “We are still seeing far more parking being built than is absolutely necessary.” (See sidebar to learn how the shift has played out in other cities.)

Construction in Albemarle is picking up as people get priced out of nearby cities like Charlotte. In the last two years, this small city of 16,000 has approved permits for 3,000 new housing units, with another 1,000 in the works, including middle housing like duplexes and townhouses.

Robinson is nervous that the parking requirements, which were discarded at a time when the city wasn’t growing, might return as development accelerates. “I’m trying to keep them from going in that direction,” he said. His concerns aren’t unfounded, as the experience of another city shows.

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Left to the Market, How Much Parking Gets Built?

In Buffalo, New York, which struck down parking requirements in April 2017, a review of 36 major developments showed that 53 percent of projects still opted to include at least as many parking spaces as the previous code had required. The developers who did propose building less parking averaged 60 fewer parking spaces than the old minimum required, avoiding over eight acres of unnecessary asphalt and saving up to $30 million in construction costs.

Seattle saw similar results after eliminating parking requirements near transit in 2012. A study of 868 residential developments permitted in the following five years found that 70 percent of new buildings in areas not subject to parking requirements still chose to have on-site parking. Collectively, the new buildings included 40 percent fewer parking spaces than would have previously been required, saving an estimated $537 million in construction costs and freeing up 144 acres of land.

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“Left to the Market, How Much Parking Gets Built?”

Sources: “What Happened When Buffalo Changed Its Parking Rules,” Streetsblog (June 2021); “Seattle’s Reduced Parking Minimums Cut 18,000 Stalls and Saved Over $500 Million,” State Smart Transportation Initiative (February 2021).
When Mandates Make a U-Turn

It took almost a decade for a new apartment building with no parking to arrive in Portland after the city waived requirements near transit in 2002. The political backlash came more swiftly. As Portland's rental market tightened, the city found itself with the second-lowest vacancy rate in the country in 2012. Apartment construction was booming, and buildings without off-street parking were becoming increasingly common.

Then controversy erupted. The epicenter was a 13-block section of Division Street, a car-oriented commercial corridor experiencing a building boom. By the time the issue made it to the front pages of Willamette Week, the local weekly paper, 11 new multifamily buildings were under development, seven with no parking at all.

A city-commissioned survey of 115 residents of new apartment buildings would show that 72 percent of the respondents owned cars, with the majority parking on neighborhood streets (Mesh 2012a). Even though the same survey showed that the areas around the buildings had plenty of available parking, neighbors didn't perceive it that way. Mayor Charlie Hales, who had championed the removal of parking mandates as a council member in 2002, even floated the idea of instituting a building moratorium until the zoning code could be sorted out. Hales told Willamette Week that he had anticipated developers might build one parking spot instead.
of two, but hadn’t imagined banks would finance housing with no parking at all (Mesh 2012b).

In response to the outcry, Portland’s city council reinstated a parking requirement for multifamily developments with more than 30 units. Those larger buildings would need to provide one parking space for every three or four units, depending on the building size. “That was the strategic retreat,” Hales explained. “We decided to adjust our ideal slightly to a watered-down version in order to reduce the controversy.”

Hales, who is no longer mayor, still believes strongly in eliminating parking requirements. “There’s some things we really don’t need to regulate,” he said recently. “Minimum number of parking spaces is one of them.” Given the political pressure of the time, he has a hard time imagining how things could have worked out differently.

While supporters of parking mandates prevailed in that case, the matter was far from settled. Several years after the brouhaha, regulated affordable housing near transit regained its exemption from parking requirements, after rising rents and economic displacement prompted Portland to declare a housing state of emergency and elect a tenant advocate to city council. Portland adopted an inclusionary zoning policy that same year, requiring multifamily buildings to set aside units for affordable housing—and waiving residential parking requirements for those buildings.

Looking back, Portland activist Tony Jordan, who went on to launch the national Parking Reform Network, thinks the city was foolish to derail the housing construction wave. “Why would you do anything” to make developers think twice about investing in larger buildings, he asked. The way the code was written, adding one more unit to a 30-unit building came with a penalty of six parking spaces, incentivizing builders to stay under the limit. “Even if we only lost 60 apartments,” Jordan said, “that’s a housing subsidy that we just threw away—and for what?”

Communities with No Parking Minimums

According to the Parking Reform Network, the following communities do not have citywide minimum parking requirements (dates of implementation indicated when known). Learn more about these and other changes to U.S. parking mandates at www.parkingreform.org.

- **California:** Alameda (2021), San Francisco (2018), Emeryville (2019)
- **Connecticut:** Bridgeport (2022), Hartford (2017)
- **Georgia:** Dunwoody (2019)
- **Indiana:** South Bend (2021)
- **Michigan:** Ann Arbor (2022), Mancelona, Ecorse (2020), River Rouge (2021)
- **Minnesota:** Minneapolis (2021), St. Paul (2021)
- **Missouri:** Branson
- **New Hampshire:** Seabrook (2019), Dover (2015)
- **New York:** Buffalo (2017), Canandaigua, Hudson (2019), Saranac Lake (2016)
- **North Carolina:** Raleigh (2022)
- **Tennessee:** Jackson (2021)
- **Texas:** Bandera, Bastrop (2019)
- **Alberta:** Edmonton (2020), High River (2021)
Stopping Parking Spillover

When parking complaints bubbled up in Portland’s Northwest neighborhood in 2016, the city was ready to try a different strategy: directly managing on-street parking. A local parking advisory committee had petitioned Portland’s city council to apply the citywide parking requirements to the growing district, which had historically been exempted. But when a study showed that those regulations would have made 23 percent of newly constructed homes in the neighborhood illegal, the council opted to improve the district’s fledgling parking permit program instead.

“When city staff manage on-street parking properly, they can prevent that on-street parking from getting overcrowded with a 99 percent success rate,” said Siegman, who has spent much of his career studying spillover parking concerns. The problem, he said, is that almost no one has training in how to manage street parking in a way that is both effective and politically popular. On-street parking management is not part of the core curriculum for planners or transportation engineers.

“What you’re essentially doing with on-street parking spaces is taking a valuable resource that belongs to the public and setting up rights to determine who gets to use it,” said Siegman. Any hotel manager knows that once the keys are gone, there is no vacancy. Yet cities often hand out multiple residential permits for every street space, and wait until the problem is so bad that neighbors have to petition for curbside management.

When a neighborhood has more drivers seeking permits than there are on-street spaces, there are a number of ways to ensure balance. Boundaries for a parking district could exclude new buildings or households with driveways, or restrict the number of permits to the street frontage of the lot—forcing developers and incoming residents to make a plan for storing cars off-site.

Siegman estimates the costs of setting up an effective parking permit program could be somewhere in the neighborhood of $100,000—a bargain compared to the cost of building parking, which can run as much as $50,000 per space. “There are all kinds of different feelings about what’s fair,” Siegman said, “but you can often come to a solution that has durable majority political support.”

That’s what officials in Vancouver, British Columbia, did in 2017 to resolve crowded curbs in the West End. Despite 94 percent of residents having access to an off-street parking space, many still preferred to park on the street. Over 6,000 drivers had opted for the $6 a month permit for the chance to park in one of the 2,747 on-street spaces. When the city raised permit prices to $30 per month—more in line with what private garages charged—and installed more parking meters, curb congestion cleared up. Before that change, only one out of five blocks met the city’s standards of being less than 85 percent full at the busiest times of day. Within two years of the pricing adjustments, all of the blocks measured below that threshold, making it far easier to find a parking space.
The Next Wave of Parking Reform

More and more, champions of eliminating parking mandates are getting elected to offices and planning commissions, according to Jordan, of the Parking Reform Network. “One person can really get the idea and push it through,” he said. The growing number of cities that have taken this deregulatory action (see map and sidebar on pages 28–29) provides political cover for policy makers who have been hesitant to go first.

But parking reform advocates say change should and will happen beyond the local level. Since “the perceived benefits of instituting parking regulations [have been] almost entirely local,” Siegman said, he thinks almost all of the productive reform to get rid of minimum parking laws is going to come from the regional, state, or national level.

A wave of legislation against parking mandates has been gathering momentum on the West Coast. In 2020, Washington State quietly capped excessive parking requirements near transit for market-rate and affordable housing. California’s third attempt to limit local parking requirements near public transit succeeded in September with the signing of AB 2097. That came on the heels of another statewide rollback in Oregon, where a state land use commission struck down parking mandates for projects near transit, affordable housing, and small homes across the state’s eight largest metro regions, which house 60 percent of Oregon’s population.

By July 2023, nearly 50 cities in Oregon will need to choose between wholly eliminating minimum parking requirements or implementing a suite of other tools to manage parking and comply with the new administrative rule. They are sure to have lots of company, as municipalities and states across the nation weigh the harm these regulations have caused against the 20th century dream of free and easy parking.

Aaron Gill, of the Hartford Planning and Zoning Commission, has some simple advice for jurisdictions considering removing parking minimums: “I would say just do it. Don’t waste time having a discussion as to if it’s going to work or not. The reality is we have way too much parking in this country.”

Catie Gould is a transportation researcher with the Seattle-based nonprofit think tank Sightline Institute.

Municipalities and states across the nation are weighing the harm these regulations have caused against the 20th century dream of free and easy parking.

REFERENCES


