HOUSING the HOMELESS

CITYSPACES MicroPAD®
Prefab Affordable Dwelling
An Infill Developer Versus the Forces of No
Urban Ecologist

AN INFILL DEVELOPER VERSUS THE FORCES OF NO
BY PATRICK KENNEDY

Many cities now recognize the value of promoting dense, mixed-use, infill development to enliven their downtowns, to provide affordable housing, and to improve transit ridership. But obstacles to such projects abound, among them reluctant construction lenders, skeptical mortgage financiers, and complicated building code requirements.

One of the biggest hurdles I've encountered as a developer of mixed-use infill projects in Berkeley, California is the project approval process, which invariably involves complying with the city's zoning ordinance. Many cities have ordinances that thwart the very kinds of developments they desire. In my experience, there are three particular areas of local zoning law that are most often used by city staff, opposition groups, and others to kill worthy projects.

**Density:** The issue of density is one of the biggest sources of resistance to infill projects and the most misunderstood. The problem in many downtowns and city thoroughfares is the absence of people and their purposeful activity, not an excess of them. Samuel Johnson once wrote, "Men, tharly scattered make a shift, but a bad shift, without many things. It is being concentration that produces convenience."

The empty lots and vacant storefronts that stretch along Berkeley's University Avenue, the once proud gateway to my city, attest to the need for more density. Yet many projects are challenged on this ground alone, with the unsupported claim that more people will be detrimental to the area. In Berkeley, any "detriment" may be grounds for denial of a project, and "detriment" is often broadly defined, since no definition is given in the ordinance itself.

On one mixed-use project I recently proposed on a vacant commercial lot abutting a residential neighborhood, a protestor announced that "even one more person in this neighborhood on this street would be detrimental."

**Open Space:** Another particularly troublesome requirement is open space, which, as Jane Jacobs writes in *The Death and Life of Great American Cities* (see sidebar), enjoys the slavish devotion of many city planners. Many city ordinances mirror this devotion, and make infill development all the more difficult, if not impossible. For example, the open space needed under the ordinance for a small lot, infill project in downtown Berkeley that I recently considered is greater than the actual size of the lot. And the lot is across the street from U.C. Berkeley, a place with acres of open space.

Another example of the perversity of the city's ordinance is that an entry front porch — where people naturally gravitate — cannot be considered open space, but a sidewalk — with no direct access to a dwelling and only space enough for a garbage can and a newspaper (10-foot-wide space) — can.

Panoramic has been doing high density infill development since 1990.
Innovative Infill Development

2116 Allston Way, Suite One • Berkeley, CA 94704

More than any other human artifacts, buildings improve with time - if they are allowed to.

-- Stewart Brand

How Buildings Learn (1994)

Possibilities to add convenience, intensity and cheer in cities... are limitless.

-- Jane Jacobs

The Death and Life of Great American Cities (1961)
Panoramic Interests

Acton Courtyard
ARTech Building
University Lofts
Shattuck Lofts
Henry Court
Westside Place
UC Storage

Cities exist not for the passage of cars, but for the care and culture of human beings.

-- Lewis Mumford
Panoramic Interests

Current Pipeline

The Panoramic: 160 units
Student Housing

The Nexus: 70 units
Student Housing

Shattuck: 22 units
Workforce Housing

200 Hyde: 168 units
Homeless Housing

333 12th Street: 201 units
Workforce Housing

MicroPAD
Homeless Housing for Cities

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The Panoramic, San Francisco
160 Micro-apartments

Studios - 254 SQFT
Suites (3 BR) - 524 SQFT
Challenges & barriers to permanent, supportive housing for the homeless

Inadequate & insufficient housing stock

Escalating construction costs

Lack of public funding

High land costs

Rising rents

Source: Flickr
Meet the outsider who accidentally solved chronic homelessness

“...It’s that simple,” he said. “Give homes for the homeless, and you will solve chronic homelessness.”

-Sam Tsemberis
Housing First Model: permanent, supportive housing
New York City: cost savings with housing first method

Source: NYC Mayors Report 2012
CitizenM Hotel, Times Square, New York
CitizenM Hotel, Times Square, New York
#24 of 475 on Trip Advisor, 3 notches above the Ritz-Carlton

CitizenM New York Times Square
- 1,835 Reviews
- #24 of 475 hotels in New York City
- “Excellent place to stay in NY” 07/07/2016
- “Holiday” 07/06/2016
- Green
- Mid-range

The Ritz-Carlton New York, Central Park
- 1,075 Reviews
- #28 of 475 hotels in New York City
- “You will not be disappointed!!” 07/01/2016
- “OMGI” 06/30/2016
- Green
- Pets Allowed
- Luxury
CitizenM Hotel, standard room: 8’ x 20’ = 160 SQFT
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CitizenM Hotel, standard room: 8’ x 20’ = 160 SQFT
CITYSPACES MicroPAD floorplan

Turn-key, self-contained, indestructible

- 24/7 filtered ventilation in exterior wall
- Bed with storage drawers underneath
- Food prep area & sink with fridge, cooktop, & microwave oven
- 5’ wide hallway for accessibility

- 8’
- 20’
- 5’

- Desk and chair with shelves
- Armoire closet
- Shower
- Floor drain, in case of flooding
- Plumbing and utility chase & submeters
CITYSPACES MicroPAD interior

Self-contained supportive housing, taking design notes from a leading hotel brand

Design inspired by citizenM Hotel $159-$400 / night

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CITYSPACES MicroPAD
Incredible strength. Ultimate simplicity.

Incredible strength.

Ultimate simplicity.
CITYSPACES MicroPAD

Incredible strength. Ultimate simplicity.
CITYSPACES MicroPAD interior
Self-contained, supportive housing

Each unit equipped with:

• Full kitchen
• Microwave, fridge, garbage disposal
• Captains bed with storage underneath
• Full bath with toilet and shower
• Desk with floating shelves above
• Plenty of natural light
• 24-hour filtered air via heat exchanger
• Wall-mounted flat screen TV
• Armoire closet
• Gear wall at entry for more storage
• Window bench with views
• Operable windows
CITYSPACES MicroPAD module

2 CITYSPACES MicroPADs are connected with a 5’ hallway & contained in a 45’ x 8’ module

Solid steel walls & unibody construction isolate and control:

- **Flooding:** Built-in secondary drain to contain plumbing mishaps.
- **Fire:** 2-hour fire ratings and a fully sprinklered building, ensure fire safety.
- **Odors:** 24/7 fresh air exchange & ventilation.
- **Insects:** Steel demising walls prevent spread of pests.
- **Noise:** Double-wall construction & air spaces between units provide engineered soundproofing.

... protecting all other units in the building.
CITYSPACES MicroPAD
All steel bed, with drawers. Underbed storage and ultraviolet lighting.

The Impact of Ultraviolet Light on Survival and Behavior of the Human Bed Bug, *Cimex lectularius* Linnaeus

The Ohio State University
April 2013

This project strongly suggests that UV light is effective, both in killing bed bugs, and in impairing their ability to reach a host. Perhaps the most encouraging aspect of this study was the
38 Harriet Street

CITYSPACES 38 Harriet: 23 units stacked in **4 days**, finished in **4 months**

*Before:* August 18, 2013

*During:* August 22, 2013

*After:* December 31, 2013
Steel modular construction, based on ISO shipping container dimensions

Finally: Innovation in the construction industry

Intermodal size easily fits on a standard ship, truck, or train

Flexible design that fits in any neighborhood

Easily relocated, if desired

Installed in days

The buildings can be built over existing parking lots, preserving the parking below.
Streamlined fabrication and delivery
Modules manufactured in the time it takes to pour the foundation

1) On-site foundations
2) Steel fabrication
3) Module fit-out

4) Delivery
5) Erection
6) Zip up & Finishing
Streamlined Fabrication and Delivery

**CITYSPACES MICROPAD CONSTRUCTION SCHEDULE**

- Design
- Expedited Permits & Approvals
- Site Development & Foundation
- Construction & Finishing

**SITE-BUILT CONSTRUCTION SCHEDULE**

- Design
- Permits & Approvals
- Site Development & Foundation
- Construction
- Finishing

SAVING TIME 40-50%
Streamlined fabrication and delivery

CITYSPACES MicroPAD modules are stacked like LEGO blocks & erected in DAYS
Streamlined fabrication and delivery
Student housing, UK - 190 apartments - 8 DAYS (2015)
Dwellings arrive to site completely finished on the inside. 22,000 hotel rooms completed worldwide with same technology.
Site case study
200 Hyde Street (Corner of Hyde and Turk in Tenderloin): 7,650 square foot site
Site case study
200 Hyde Street - 168 SF MicroPADs in 85’ tall, 8 story building.

Much needed ground floor retail and services
Site case study

200 Hyde Street - 168 SF MicroPADs in 85’ tall, 8 story building.
Streamlined fabrication and delivery
San Francisco rapid supportive housing for homeless

4,400 +/- unhoused homeless in San Francisco. This ship could deliver housing for all those individuals, using only 24% of its capacity. (Capacity: 18,000 TEUs)
CITYSPACES MicroPAD

Incredible Strength.

Ultimate Simplicity.
CITYSPACES MicroPAD
MicroPADs can be assembled on any site, at any scale desired

Create buildings like this:
33 MicroPADs

OR

Create buildings like this:
300 MicroPADs

38 Harriet, San Francisco, 4 floors
Lot size: 3,750 SF

1321 Mission, San Francisco, 11 floors
Lot size: 9,208 SF
Timeless advice from a 15th century city planner

“Small rooms or dwellings set the mind on the right path, large ones cause it to go astray.”

- Leonardo da Vinci