The Regulatory Challenges of Building a "Tiny House"

By Jay Surabian



In an era where millions of mortgages remain underwater, more people are becoming environmentally conscious, and where many municipalities are looking to create affordable housing, tiny houses are seen by some as an ideal housing alternative. However, there can be barriers to building a tiny house as the desire for less space can conflict with regulations designed to protect health and safety. This paper examines the regulatory challenges that exist under current building and zoning codes for those looking to build and reside in a tiny home.

The Benefits of a "Tiny House"

In the past decade, the concept of tiny houses has gained popularity in the United States. Tiny houses resemble traditional houses, but on a drastically smaller scale. Some are as small 100 to 200 square feet, but provide most of the features of a traditional house, including a living area with a toilet and shower and a kitchen with a sink and cooking facilities. The sleeping area can be in a small bedroom or in a loft, which might be as small as 6'x7' with a ceiling height of no more than 3 to 4 feet. Several companies now sell ready-made tiny houses for purchase that can be shipped to customers on a trailer—or a do-it-yourself homebuilder can purchase the plans and construct the house.

Tiny houses have attracted attention from national media outlets, including CNN and *The New Yorker*, where it was speculated that there could be as many as a thousand tiny houses in the U.S.[1] Tiny houses have even appeared in the Washington, DC area as the *Washington Post* reported last year.[2]

Tiny house owners are certainly bucking the trend on house size. In 2011, the average size of a new single family house was 2,480 sq. ft., while in 1973 it was only 1,660 sq. ft.[3] While many Americans may believe that "bigger is better," tiny house owners seem to relish living in their affordable and environmentally responsible homes. Numerous tiny house owners have created blogs to document their experiences building and living in one.

Advocates of tiny houses state that they have significant advantages over conventional homes. A tiny house can cost as little as $20,000-$50,000 to build. Comparatively, in 2011, the average sales price for a new single-family home in the United States was $267,900.[4] Of course, in urban areas housing can be far more expensive.

Housing costs in the District of Columbia are especially high. The median value of a single-family house is approximately $442,600.[5] Nearly 60% of home owners in the District have monthly housing costs in excess of $2,000.[6] The costs for renters are also taxing, as more than 40% of renters spend over 35% of their household income on rent.[7]

The economic benefits also bring a much more sustainable way of living. Tiny houses obviously require less lumber and materials, which makes them cheaper to build, but also results in less deforestation and a smaller carbon footprint. Similarly, a small house does not have the massive heating and utility bills of a larger house, which is again both significantly less expensive and more environmentally friendly.

There are many other costs beyond purchase price and utilities that come along with conventional homeownership that are significantly less or non-existent with a tiny home. An owner of a bigger home pays higher property taxes, has higher insurance premiums, pays more for renovations and upgrades, and spends more time cleaning and maintaining the house. Thus, for some, a tiny house provides a simpler lifestyle with the freedom of not being saddled with a large mortgage and all of the costly and time consuming responsibilities of owning a home.

Unfortunately for prospective tiny house owners, local and state zoning and building codes prevent many tiny houses from being lawfully built or inhabited.

Building Code Issues

In the U.S., building code standards are generally set by the International Code Council (ICC). The ICC is a non-profit organization that has created a series of code books, including the International Building Code (IBC) and the International Residential Code (IRC).

ICC code books have been adopted (or adopted with some limitations) in every state in the U.S., including the District of Columbia.[8]

The IRC, which applies specifically to the construction of one and two family dwellings, has numerous design standards, which serve to ensure that a structure is strong enough to protect against the weather and exterior elements and that the interior living environment is safe and sanitary. Municipalities require builders to demonstrate compliance with this code before issuing a building permit and before allowing a dwelling to be occupied.

The first hurdle for a builder of a tiny house to consider is the IRC's minimum size requirements. The purpose of these rules is to create a comfortable and healthy living environment as odors, moisture, and disease transmission can be affected by room size. *See* IRC Code and Commentary § R304.1 (2006). The IRC provides that every dwelling shall have at least one habitable room with a minimum of 120 sq. ft. *See* IRC § R304.1 (2012). Any other habitable rooms must be at least 70 sq. ft. *See* IRC § R304.2 (2012). No habitable room shall be less than 7 feet in any horizontal direction. *See* IRC § R304.3 (2012).

Similarly, every habitable room must have a minimum ceiling height of 7 feet (6'8" for bathrooms). *See* IRC § R305.1 (2012). The ICC codes state that minimum ceiling heights are necessary to ensure adequate light and circulation of air. *See* IBC Code and Commentary § 1208 (2006). Therefore, the design feature, which is common to tiny houses, of having a sleeping space in a low ceilinged loft is impermissible. These design standards make it impossible to live in a house with less than 200 sq. ft., unless the living, sleeping, and kitchen are all in one small room.[9]

Some jurisdictions, including the District of Columbia, supplement the IRC with its own, more restrictive requirements. The District's Housing Code requires a dwelling to be a minimum of 130 sq. ft. for the first occupant, with an additional 90 sq. ft. for each additional occupant. *See* D.C. MUN. REGS. tit. 14, § 402.1. Rooms used for sleeping must be a minimum of 70 sq. ft. *See* D.C. MUN. REGS. tit. 14, § 402.2. Rooms used by two or more people for sleeping must have a minimum of 50 sq. ft. per occupant. *See* D.C. MUN. REGS. tit. 14, § 402.3. In order to meet these standards, a tiny house for two people would have to have at least 220 sq. ft. of habitable space, not including the bathroom or any space that does not have a ceiling height of at least 7 ft. *See* D.C. MUN. REGS. tit. 14, § 405.1.

In the U.S., building code standards are generally set by the International Code Council (ICC). The ICC is a non-profit organization that has created a series of code books, including the International Building Code (IBC) and the International Residential Code (IRC). ICC code books have been adopted (or adopted with some limitations) in every state in the U.S., including the District of Columbia.

In terms of utilities, the IRC also requires every home to have a toilet, bathtub or shower, and a kitchen with a sink. *See* IRC § R306.1-2 (2012). All plumbing fixtures must be hooked up to a sanitary sewer or approved septic system. *See* IRC § R306.3 (2012). Hot and cold water must be provided from an approved water supply. *See* IRC § R306.4 (2012). The IRC sets minimum size requirements for plumbing fixtures and specifies minimum clearance space between them. *See* IRC § R307.1 (2012). The result of these regulations is that it's not possible to design a bathroom that's smaller than approximately 18-20 sq. ft.

A dwelling must also be heated. Portable space heaters are not acceptable heating systems under the IRC, thus a permanent heat system must be installed. *See* IRC § R303.9 (2012). There must also be room for electrical fixtures, including an electric meter, outlets and switches. *See* IRC §§ E3405, E3901.2, E3903.2 (2012). All these features take up space and may push a prospective tiny home builder into increasing the amount of living area.

These are only some of the design considerations. The structure must be properly ventilated, the exterior walls must be strong enough to withstand the wind load, and windows must also meet certain specifications. *See* IRC §§ R301, R303, and R308.

Tiny homes that are constructed on wheels by a manufacturer can fall under the federal regulations for mobile homes. The National Manufactured Housing Construction and Safety Standards Act of 1974, 42 U.S.C. § 5401 et seq., sets forth construction standards for manufactured (i.e. mobile) homes that are 320 sq. ft. or more in floor area. *See* 24 CFR § 3280.2. The federal construction standards are not identical to the IRC, but do regulate minimum unit size. The federal standards require habitable rooms and bathrooms to have a minimum a ceiling height of 7 ft. for at least 50% of the room's floor area. *See* 24 CFR § 3280.104(a). Manufactured

Continued on page 14



Jay Surabian is an Assistant Attorney General in the Office of the Attorney General for the District of Columbia. He advises the District on land use, zoning, building code, and historic preservation issues. Mr. Surabian also represents the District in code enforcement litigation and in appeals before the D.C. Board of Zoning Adjustment. He attended Boston College (B.A.) and Suffolk University Law School (J.D.).

homes must contain at least one habitable room with not less than 150 sq. ft. *See* 24 CFR § 3280.109(a). Bedrooms must be a minimum of 50 sq. ft. for one person, 70 sq. ft. for two people, and an additional 50 sq. ft. for each person in excess of two and contain a closet at least 22 inches deep. *See* 24 CFR § 3280.109(b)-(c). Mobile homes that are being used as permanent dwellings cannot remain on wheels. The IRC requires mobile/manufactured homes be installed on a foundation. *See* IRC § AE501.1 (2012).

In sum, these laws do not create an absolute barrier, but they do present significant design challenges to a builder of a tiny home who is trying to meet the requirements of the IRC and local codes.

Zoning Issues

Unlike the International Code Council series, which creates a widely accepted set of construction standards, zoning regulations are inherently designed to deal with local concerns and therefore differ in each jurisdiction. Nevertheless, there are many commonalities from city to city and consequently, similar obstacles for tiny home owners wherever they may be.

Municipalities began to implement zoning laws in the early part of the 20th century to deal with the complex problems that arose as urban and suburban areas saw increased development and populations. *See Village of Euclid, Ohio v. Ambler Realty Co.*, 272 U.S. 365, 376-7 (1926). Many zoning ordinances, including the District of Columbia's, recite similar purposes to provide adequate light, air and privacy, to prevent undue concentration of population and overcrowding of land, and to lessen traffic congestion, all for the health and safety of the community. *See e.g. id.*; D.C. MUN. REGS. TIT. 11, § 101.1; ZONING RESOLUTION OF THE CITY OF NEW YORK. § 21-00; ZONING CODE OF BALTIMORE CITY § 1-401.

The District of Columbia's zoning regulations do not set forth a minimum house size, but some municipalities do. *See e.g.* ARLINGTON COUNTY, VA ZONING ORDINANCE § 7(A)(2) (requiring a minimum of 1500 sq. ft. of habitable living area for each semi-detached or townhouse dwelling). In some jurisdictions, developers have challenged such regulations by arguing that they do not relate to any legitimate purpose of zoning and instead are simply designed to regulate aesthetics and create economic segregation. In cases where a minimum floor area requirement was found to have no relationship to the occupancy of the dwelling, courts have agreed and found those regulations to be invalid. *See Builders Service Corp., Inc. v. Planning & Zoning Comm'n of Town of East Hampton*, 545 A.2d 530 (Conn. 1988) (finding a minimum floor area requirement of 1300 sq. ft. for a single-family home was not rationally related to the legitimate objectives of the zoning statute); *Home Builders League of South Jersey v. Twp. of Berlin*, 405 A.2d 381 (1979) (holding that the minimum floor area requirement lacked connection to health or safety and was solely directed towards economic segregation). *But see Gackler Land Co., Inc. v. Yankee Springs Twp.*, 398 N.W.2d 393 (Mich. 1986) (finding a 720 sq. ft. floor area requirement for single family dwellings and mobile homes to be constitutional).

Many zoning ordinances, including the District of Columbia's, recite similar purposes to provide adequate light, air and privacy, to prevent undue concentration of population and overcrowding of land, and to lessen traffic congestion, all for the health and safety of the community.

Even if there is no zoning regulation prescribing a minimum floor area, some developments are subject to covenants and bylaws of home owners associations that may set forth home design standards, including minimum size.

Zoning regulations can also affect house size by regulating other aspects of land use. For example, in the District of Columbia, a single-family house in the most restrictive residential district must have a minimum lot size of 7,500 sq. ft. and a minimum lot width of 75 ft. *See* D.C. MUN. REGS. tit. 11, § 401.3. Setting minimum lot sizes prevents larger tracts of land from being subdivided into smaller lots that would be more proportional to a tiny house. Set backs are also used to push development away from property lines and towards the center of the lot. The most restrictive residential district in the District requires a minimum rear yard of 25 ft. and side yards of 8 ft. *See* D.C. MUN. REGS. tit. 11, § 405.9.

These regulations indirectly create economic disincentives to owning a tiny house. Would a person looking to build a 200 sq. ft. house choose to do it on a 7,500 sq. ft. lot? In a city like the District of Columbia where land comes at a premium, that may not be the most economically viable location.

Additionally, the Zoning Regulations permit only one principal building on a single lot. *See* D.C. MUN. REGS. tit. 11, § 2516.1. An accessory building, like a garage, is allowed, but it generally cannot contain a dwelling unit, unless a special exception is granted by the Board of Zoning Adjustment. This prevents multiple tiny houses from being built on a single lot and prohibits an owner of a lot with an existing house from erecting a tiny house in the backyard for guests or tenants.

Changes on the Horizon?

The International Building Code and International Residential Code are revised in 3 year cycles. The next cycle will produce the 2015 edition. Requirements such as room size and ceiling height have remained relatively unchanged since the advent of the ICC code series, which may not bode well for prospective tiny house owners.

In the Washington, DC region, some jurisdictions are recognizing the changing needs of the population and the need for more affordable and sustainable housing. Although no jurisdiction is permitting a house as small as 100 sq. ft., the changes are reflecting a need for more

flexible housing options.

The District is currently rewriting its zoning regulations.[10] Some of the changes to come will open up more opportunities to create affordable housing. For example, off street parking will no longer be required for single family homes and residential buildings with fewer than 10 units. Home owners will be allowed as a matter-of-right to add a dwelling unit to an accessory building. The proposed regulations also are designed to make it less restrictive to utilize alley lots for housing in certain zones. Alley lots are lots that have frontage on an alley instead of a street. In years past, alley buildings were limited to use as storage or parking, but can now be used as an artist studio or a single family house.

A sister of the tiny house has recently been allowed in Virginia. In 2010, the Commonwealth enacted a statute that overrides local zoning ordinances and permits "temporary family health care structures" as a matter-of-right. *See* VA. CODE ANN. § 15.2-2292.1(A). This legislation arose from an increasing desire to provide care for relatives with health issues at home. The temporary health care structures are essentially, portable, tiny homes that are used, as an alternative to a nursing home, to house an elderly or disabled family member. Consequently, they have been dubbed "granny pods."[11]

The Virginia statute allows the granny pod as an accessory structure on a lot with a detached single family home. *See* VA. CODE ANN. § 15.2-2292.1(A). The granny pod is limited for use as a dwelling for one family member who is physically or mentally impaired. *See* VA. CODE ANN. § 15.2-2292.1(B). Use of the structure must remain temporary, as it must be removed once it is no longer needed. *See* VA. CODE ANN. § 15.2-2292.1(F). The statute provides that the structure can be no larger than 300 sq. ft., but it must still comply with the state's building code, which is the IRC. *See* VA. CODE ANN. § 15.2-2292.1(B). While, this law still requires compliance with the IRC, it does remove a major zoning hurdle and provides for a more affordable and flexible housing option for families who need to care for disabled relatives.

As the population ages, housing costs keep increasing, and more people look to live in more environmentally sustainable homes, more municipalities may see proposals for tiny houses. This necessitates that both builders and municipalities understand the building code and zoning issues that can arise in processing permit applications and in code enforcement. It may also prompt some jurisdictions to consider regulatory changes aimed at creating more affordable and flexible housing options.

Notes

1. Alec Wilkinson, *Annals of Design: Let's Get Small*, The New Yorker, July 25, 2011, http://www.newyorker.com/reporting/2011/07/25/110725fa_fact_wilkinson; Emanuella Grinberg, *Tiny homes hit the big city*, CNN, September 21, 2012, http://www.cnn.com/2012/09/21/living/small-homes-irpt.
2. Emily Wax, *Home, squeezed home: Living in a 200-square-foot space*, Washington Post, November 27, 2012, http://articles.washingtonpost.com/2012-11-27/lifestyle/35509773_1_diminutive-homes-affordable-homes-tiny-house; Donna Peterson, *Fairfax County woman building livable 'tiny house' as part of sustainability movement*, Washington Post, October 9, 2012, http://www.washingtonpost.com/blogs/the-state-of-nova/post/fairfax-county-woman-builds-livable-tiny-house-as-part-of-sustainability-movement/2012/10/09/77ce89c4-11bc-11e2-ba83-a7a396e6b2a7_blog.html
3. U.S. Census Bureau. (2010). http://www.census.gov/const/C25Ann/sftotalmedavgsqft.pdf
4. U.S. Census Bureau. (2012). Characteristics of New Housing. http://www.census.gov/construction/chars/
5. U.S. Census Bureau. (2010). http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml
6. *Id.*
7. *Id.*
8. http://www.iccsafe.org/gr/Pages/adoptions.aspx. The District of Columbia currently uses the 2006 edition of the IBC and IRC, but is in the process of adopting the 2012 edition.
9. Tiny home builders might think that they can take advantage of the exception found in the IRC that allows for the construction of a structure less than 120 sq. ft. in size without a building permit or inspections, but that exception applies only to accessory structures like storage sheds and playhouses, which cannot be used as habitable dwellings. *See* IRC § R105.2 (2012).
10. See http://www.dczoningupdate.org/ for additional information.
11. Frederick Kunkle, *Pioneering the granny pod: Fairfax County family adapts to high-tech dwelling that could change elder care*, Washington Post, November 25, 2012, http://articles.washingtonpost.com/2012-11-25/local/35509146_1_care-granny-population. **ML**

