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TINY HOUSES

Shelter accounts for the largest expense in most homeowners' budgets. Monthly and annual payments go to mortgage principle and interest, property taxes, insurance, water, sewer, maintenance and repair, lighting, and fuels for cooking, heating, and cooling. Phew!

Of course, the smaller the home, the less the expense. The wealthy have always afforded large homes, even mansions, but while the housing trend of the recent past has been toward mini-mansions for all, incomes have not kept pace. The disparity in income between the wealthy and the rest of the population has never been greater.

In response there has been a surge in interest in smaller, even "tiny" houses. Of what does the market for tiny houses consist?

- young couples looking for starter homes
- renters finding it impossible to accumulate a \$50,000 downpayment
- empty nesters no longer needing four bedrooms
- the elderly desiring to live in on-property accessory dwellings in lieu of assisted living facilities
- and, of course, the homeless

In this first chapter we will introduce—or should we say, "reintroduce"—the outlandish idea of living on less in less space, even a *tiny* space.

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TINY HOUSES

A Tiny House at Walden Pond

With all the recurring interest in tiny houses, no one ever promoted the idea more eloquently than Henry David Thoreau. As chronicled in his classic, *Walden*, Thoreau constructed and lived in for a period of two years and two months a simple 10' x 15' cabin on the shore of Walden Pond in Concord, Massachusetts. Here, condensed, are his thoughts on shelter:

If one designs to construct a dwelling-house, it behooves him to exercise a little Yankee shrewdness, lest after all he find himself in a workhouse, a labyrinth without a clue, a museum, an almshouse, a prison, or a splendid mausoleum instead. Consider first how slight a shelter is absolutely necessary...I used to see a large box by the railroad, six feet long by three wide, in which the laborers locked up their tools at night; and it suggested to me that every man who was hard pushed might get such a one for a dollar, and, having bored a few auger holes in it, to admit the air at least, get into it when it rained and at night, and hook down the lid, and so have freedom in his love, and in his soul be free. This did not appear the worst, nor by any means a despicable alternative. You could sit up as late as you pleased, and, whenever you got up, go abroad without any landlord or house-lord dogging you for rent. Many a man is harassed to death to pay the rent of a larger and more luxurious box who would not have frozen to death in such a box as this...

Though the birds of the air have their nests, and the foxes their holes... in modern civilized society not more than one half the families own a shelter. In the large towns and cities, where civilization especially prevails, the number of those who own a shelter is a very small fraction of the whole. The rest pay an annual (rent that)... now helps to keep them poor as long as they live...

It is evident that... the civilized man hires his shelter commonly because he cannot afford to own



Replica of Thoreau's cabin on Walden Pond

Source: RhythmicQuietude at en.wikipedia https://commons.wikimedia.org/wiki/File:Replica_of_Thoreau%27s_cabin_near_Walden_Pond_and_his_statue.jpg licensed under CC BY-SA 3.0.

it; nor can he, in the long run, any better afford to hire...

Most men appear never to have considered what a house is, and are actually though needlessly poor all their lives because they think that they must have such a one as their neighbors have. There is some of the same fitness in a man's building his own house that there is in a bird's building its own nest. But alas! we do like cowbirds and cuckoos, which lay their eggs in nests which other birds have built, and cheer no traveller with their chattering and unmusical notes. Shall we forever resign the pleasure of construction to the carpenter? I never in all my walks came across a man engaged in so simple and natural an occupation as building his house. Where is this division of labor to end? and what object does it finally serve? No doubt another may also think for me; but it is not therefore desirable that he should do so to the exclusion of my thinking for myself...

I have thus (built) a tight shingled and plastered house, ten feet wide by fifteen long, and eight-feet posts, with a garret and a closet, a large window on each side, two trap doors, one door at the end, and a brick fireplace opposite... I had three chairs in my house; one for solitude, two for

friendship, three for society. When visitors came in larger and unexpected numbers there was but the third chair for them all, but they generally economized the room by standing up. It is surprising how many great men and women a small house will contain...

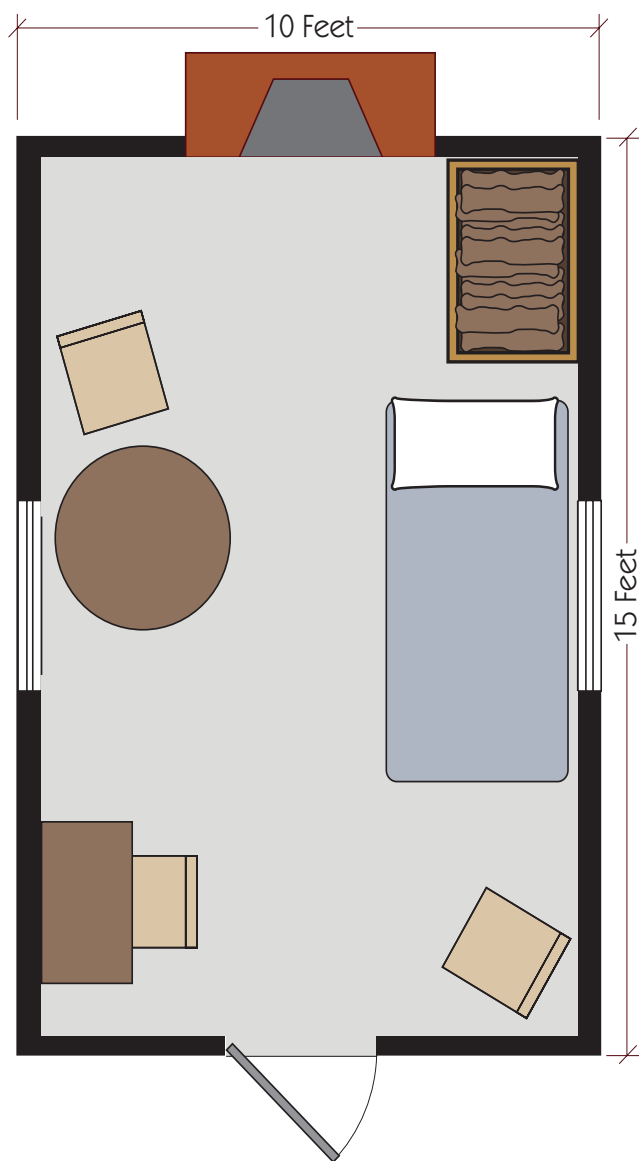
My "best" room, however, my withdrawing room, always ready for company, on whose carpet the sun rarely fell, was the pine wood behind my house. Thither in summer days, when distinguished guests came, I took them, and a priceless domestic swept the floor and dusted the furniture and kept the things in order.

Should not every apartment in which man dwells be lofty enough to create some obscurity overhead, where flickering shadows may play at evening about the rafters? These forms are more agreeable to the fancy and imagination than... the most expensive furniture... My dwelling was small, and I could hardly entertain an echo in it; but it seemed larger for being a single apartment and remote from neighbors. All the attractions of a house were concentrated in one room; it was kitchen, chamber, parlor, and keeping-room; and whatever satisfaction parent or child, master or servant, derive from living in a house, I enjoyed it all...

I sometimes dream of a larger...house, standing in a golden age, of enduring materials, and without gingerbread work, which shall still consist of only one room, a vast, rude, substantial, primitive hall, without ceiling or plastering, with bare rafters and purlins supporting a sort of lower heaven over one's head...such a shelter as you would be glad to reach in a tempestuous night, containing all the essentials of a house, and nothing for house-keeping; where you can see all the treasures of the house at one view, and everything hangs upon its peg, that a man should use; at once kitchen, pantry, parlor, chamber, storehouse, and garret; where you can see so necessary a thing,

as a barrel or a ladder, so convenient a thing as a cupboard, and hear the pot boil, and pay your respects to the fire that cooks your dinner, and the oven that bakes your bread, and the necessary furniture and utensils are the chief ornaments.

Thoreau's Floor Plan?



What Is a Tiny House?

By Definition

From Thoreau's *Walden*, published in 1854, we find the idea of living in smaller spaces is not new. Search online book stores today and you will find dozens, if not hundreds, of titles referencing small homes, modest mansions, and not-so-big homes. The first title to contain the term *tiny house*, however, was *Tiny Houses: or How to Get Away From It All* by architect Lester Walker (1987).

But the most credit for promoting tiny houses as serious solutions to a growing housing problem should be given to Jay Shafer. Shafer wrote his first tiny house article in 1997. That same year he founded the Tumbleweed Tiny House Company, building tiny houses on wheels. The tiny trailered homes (maximum width 8'-6") created interest from multiple perspectives:

- Like mobile homes and RVs, they were on wheels, but they were constructed of wood and actually looked like houses.
- Being on wheels they also fed our desire for freedom. "Hasta la vista, I'm out of here!"
- Having your home, like a turtle, "on your back" meant changing jobs would no longer require selling the old and buying new.

In 2007 Jay and his tiny home appeared on the *Oprah Winfrey Show*.

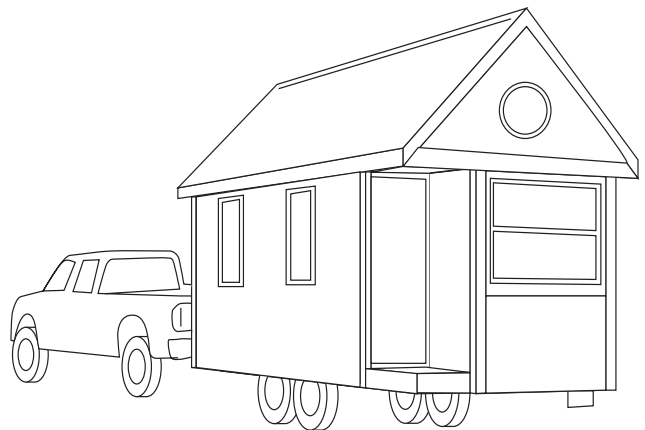
Finally, in 2017, the *International Residential Code* officially recognized tiny homes as "houses that are 400 square feet in area or less." In consultation with Jay and others the IRC added *Appendix Q*, allowing space-saving exceptions for stairs and sleeping lofts and egress (in case of fire) from roof windows.

On Wheels

Most people, when hearing the term *tiny house*, picture a conventional but narrow house built on a trailer. The appeal is not only in its less-is-more statement, but the suggestion of total independence.

While the freedom to **go** anywhere is true, the freedom to **stay** is more complex. Most zoning considers tiny homes on wheels akin to recreational vehicles and campers which are not subject to real estate taxes. They are thus considered squatters and are generally limited to stays of several months maximum.

And like RVs, tiny homes on wheels have to provide for—at least temporarily—their own electricity, water, and sewage. Like perpetual motion, **total** shelter freedom is still an elusive dream.

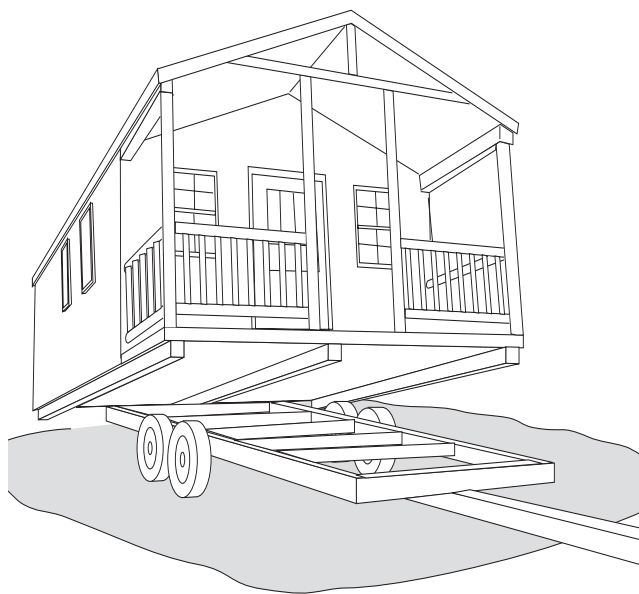


Delivered on Skids

One solution to the where-to-stay dilemma is the built-to-be-moved tiny house on skids. Small structures sheathed in structural plywood are rigid enough without supporting beams, so the skids serve primarily as runners allowing the structure to be moved across the ground.

And while tiny homes on wheels are limited to widths of 8'6" and height above ground of 13'6", structures up to 12' wide may be transported on a truck or trailer (loaded height limit 14') with a routine permit.

Inexpensive and widely available "Amish sheds" in widths to 12' and lengths to 32' provide examples. An Amish shed with upgraded doors, windows, sheathing, and siding could provide the starting point for a tiny home on a foundation.



Built on Site

Why not build a tiny home the conventional way on a permanent foundation? In the past half century, with the emphasis on bigger is better, most communities imposed minimum size requirements in their zoning. This had little to do with health or safety but everything to do with maintaining property values and the real estate tax base.

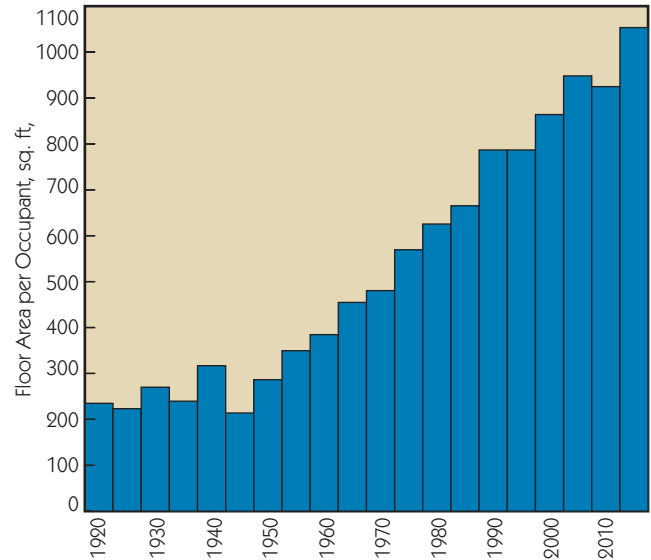
Well over ninety percent of US communities base their building standards on the *International Residential Code (IRC)*. With the formal adoption in 2018 of *IRC Appendix Q*, dealing with homes 400 square feet in area or less, there are now few if any logical reasons to outlaw tiny homes. Imposing a size limit may not be against the law, but it is increasingly difficult to defend.



How Big Is Big Enough?

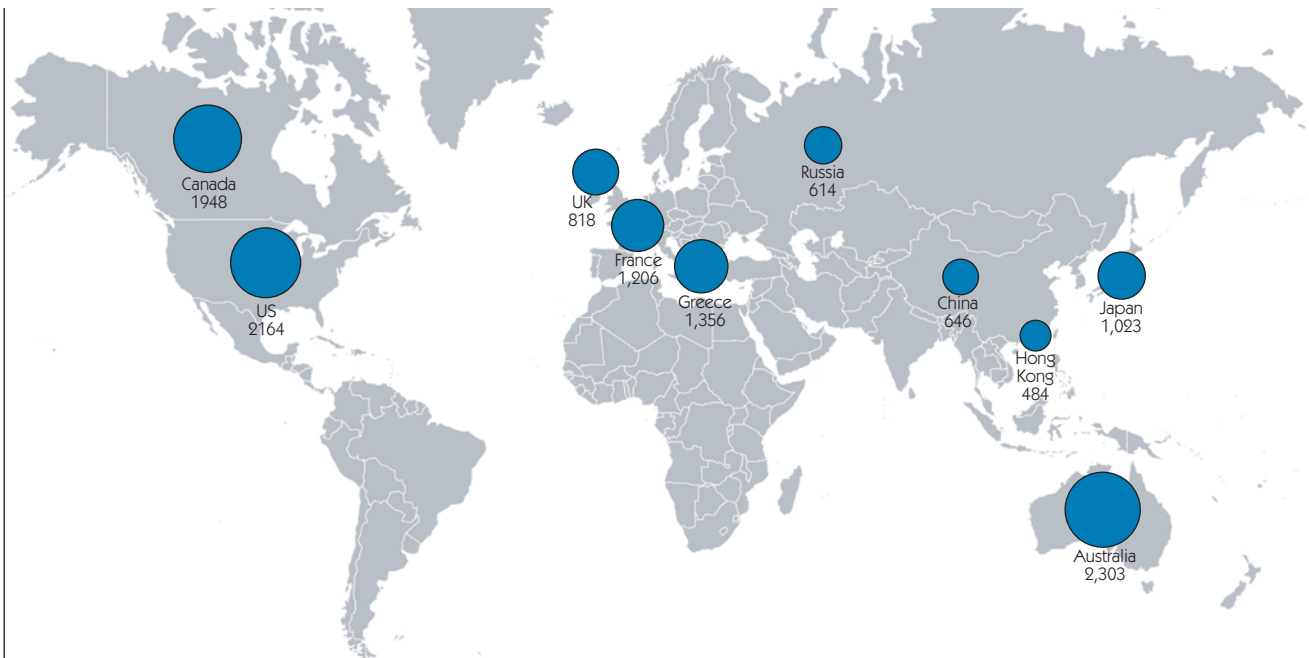
US House Sizes, 1920–2015

The average size of houses in the US remained at a near constant 200 sq.ft. per occupant until the end of WWII when millions of young GIs returned looking for homes in which to start their families. The response of the building industry was tract housing: thousands of 800 sq.ft. homes in developments such as the “Levittowns.” But as incomes increased, the size of one’s home became a status symbol. From a single bathroom and no garage, the norm grew to 4 bedrooms, 2½ baths, and a 2-car garage. Family room, media room, playroom, and a bedroom for every child added up to over 1,000 sq.ft. per occupant.

*Shelter Sizes Around the World*

Although homeowners in Australia, Canada, and the US apparently think bigger is better, the 2009 map below shows the feeling is not universal. Homeowners in Hong Kong, one of

the wealthiest countries in the world, get by with (almost) tiny homes of 484 sq.ft. and a thoroughly Thoreauvian space per occupant of just 150 sq.ft.



New Life for an Old Idea: The ADU

What Is an ADU?

An accessory dwelling unit (ADU) is a compact independent dwelling sharing a single-family lot with a larger primary dwelling. While tiny, it contains its own bathroom, kitchen, living, and sleeping areas.

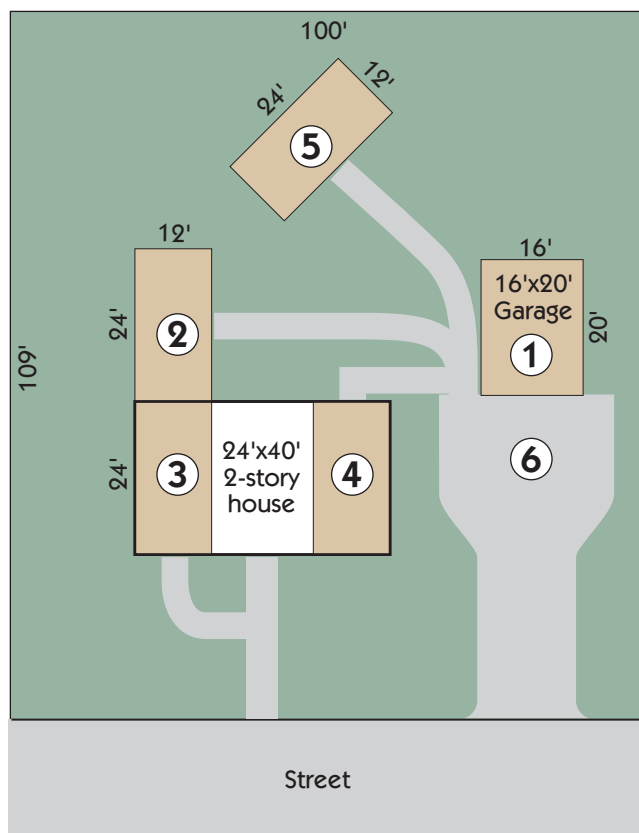
As illustrated, the ADU can be created within the existing primary dwelling, converted from a garage, added as an extension to the existing dwelling, or built on or delivered to the site.

Why an ADU?

The ADU offers a host of housing solutions:

- Older homeowners would rather age in place than be shipped off to a prohibitively expensive assisted living or nursing facility. Grandma and Grandpa can enjoy their last years at home and in the old neighborhood while their children take over the family residence.
- Young singles and couples, often saddled with college debt, can live for little or nothing while saving up for the downpayment on their first home.
- When family members no longer require the ADU, it can provide rental income to the homeowners, possibly paying the mortgage.
- In this age of decreasing housing availability and increasing cost, cities and towns are beginning to view ADUs as solutions without changing the physical character of neighborhoods.
- Finally, the great unspoken issue with tiny homes is **where to put them**. Even when zoning permits, the costs of land and site services usually equal or exceed the cost of the building itself. With an ADU the cost for the site is zero, and the costs of extending the already existing site services is minimal.

Options for ADUs



OPTIONS

- 1 A single-car 16' x 20', 1-story garage makes a perfect, groundfloor accessible apartment.
- 2 A 12' x 24' groundfloor addition is accessible and private, and adds just 30% to the house footprint.
- 3 A 12' x 24' apartment within the house first floor requires only 15% of the original house floor area.
- 4 A 12' x 24' apartment in a walkout basement makes a perfect, groundfloor accessible apartment.
- 5 A 12' x 24' (or up to 400 sq.ft.) tiny house is totally private and can be placed anywhere.
- 6 An additional parking space can usually be created for an ADU just by widening the original driveway.

NOTES