

Capital Heights DC Buildings May Be Getting a Little Taller

If you've driven through Washington, D.C., you might have noticed how easy it is to spot landmarks like the Washington Monument and the Capitol along the skyline. That's thanks to the lack of something else you might expect to find in a booming metropolis: skyscrapers. With few exceptions, no building in the city stands taller than 130 feet, or 10 stories. The source of the limit is a 120-year-old apartment building. At the time of its construction, locals feared that the 164-foot Cairo building would spark a trend of ever-higher structures that would blot out Washington's airy feel and iconic vistas. In response, Congress passed the 1910 Height of Buildings Act, still in place today.

Some buildings could be shifting up soon — though not by much. In May, President Obama signed an amendment to the Height Act that allows occupancy of penthouses up to one story above the current top floor of buildings in Washington — space previously reserved for mechanical equipment. The road to that modest change involved nearly two years of debate and study that began in July 2012 with hearings by the House Committee on Oversight and Government Reform, which has jurisdiction over the city.

Economists and local politicians have long argued

that the Act may inhibit the city's capacity for growth. Between 2010 and 2013, Washington, D.C., added nearly 50,000 people, an increase of 7.4 percent, compared with an average of 2.4 percent for the nation as a whole during the same period. If trends continue, Washington's Office of Planning estimates that by 2040, the city could need between 157 million and 317 million square feet of new building space. Increasing demand and constrained supply have already pushed residential prices to more than double the national average.

Harvard University urban economist Edward Glaeser has championed "building up" as a solution to rising costs of living in crowded cities. He noted in a 2011 *Atlantic* article, "Simply put, the places that are expensive don't build a lot, and the places that build a lot aren't expensive."

The National Capital Planning Commission (NCPC) and the Office of Planning released a study in September 2013 estimating the effect of raising the height limit by as much as 120 feet. The study concluded that high-rise construction could lower rents around the city and increase the tax base. But public response to changing the Height Act is overwhelmingly negative. A *Washington Post* poll found that 61 percent of D.C. residents opposed changing the height restrictions — a sentiment that cut across income and demographic lines. In hearings held by the Office of Planning and the NCPC, many residents said that raising the height limit would harm the city's unique character.

In its final recommendations, the Office of Planning proposed increasing the building height limit at the core of the city to 200 feet and granting city lawmakers more autonomy to modify the restrictions in the future without going through Congress. But in a resolution passed 12 to 1, the D.C. Council voiced opposition to making any changes.

In response, Congress passed the amendment allowing occupancy of penthouses, a measure supported by both the Office of Planning and the NCPC. House Committee on Oversight and Government Reform Chairman Darrell Issa has said he is not finished exploring the issue, but D.C. residents seem largely set against moving the city's century-old ceiling.

—TIM SABLİK

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The DC Office of Planning conducted a modeling study in 2013 to help visualize the impact of easing building height restrictions in Washington, D.C.

Time is Money

Making Clocks More Accurate Has an Economic Payoff

A second atomic clock officially started ticking at the National Institute of Standards and Technology (NIST) in April, helping to set a more precise standard for U.S. civilian time. Initial tests by the Gaithersburg, Md.-based agency indicate that the device is the world's most accurate timepiece.

Timekeeping devices have long used a swinging pendulum or an oscillating crystal to mark off increments of time. Inside of NIST's two atomic clocks, the back and forth motion of a pendulum is replaced by the vibrations of atoms within a chamber of cesium gas. Every time the atoms reach a certain frequency — 9,192,631,770 cycles per second, to be exact — the clocks generate an electronic tick.

This oscillation is quite stable over time. NIST-F1, built in 1999, keeps time to within one second every 100 million years. The new NIST-F2 is even better, gaining or losing a second in 300 million years.

Timekeeping has steadily improved over the centuries, driven by an interconnected world's need to stay synchronized over long distances. In the 19th century, the expansion of railroads across the

United States created the need for a uniform time standard for all trains to follow. In response, astronomical stations distributed time observations via telegraph. In the 21st century, global positioning satellites with atomic clocks send time signals that calibrate navigational equipment on boats, airplanes, and automobiles.

NIST broadcasts time signals via shortwave radio 24 hours a day, seven days a week. These signals keep cellphone and computer networks running smoothly, synchronizing pulses of information as they are transmitted and received between two points. They are also used by power companies to ensure that electricity is transmitted at the proper frequency.

Steven Jefferts, lead designer of NIST's new clock, reflected upon this technological progress when his agency announced the start of the clock's operation in Boulder, Colo. "If we've learned anything in the last 60 years of building atomic clocks, we've learned that every time we build a better clock, somebody comes up with a use for it that you couldn't have foreseen."

— CHARLES GERENA

Babies and Dollars

MD Considers a Birth Injury Fund

In light of rising medical malpractice insurance costs for obstetricians in Maryland, legislators in the state are considering a bill to create a "no-fault birth injury fund." The bill, designed to curb pressure on providers of obstetric services, was discussed at a General Assembly hearing in March.

Proponents of the bill assert that the root of the rising insurance costs is increasingly staggering sums awarded in recent years to parents of children who have suffered catastrophic neurological injuries during birth. For example, two 2012 verdicts awarded \$55 million and \$21 million, respectively, to families whose children had suffered severe brain injuries during birth. Some fear that the threat posed by these verdicts will continue to lead insurance companies to raise rates. By removing the most costly cases from the tort system, some legislators hope to lower the overall cost of obstetric malpractice insurance.

The Maryland bill is modeled in large part after a similar program enacted in Virginia, the first of its kind. In the mid-1980s, Virginia saw a comparable rise in malpractice insurance premiums for obstetricians,

prompting legislators in the state to implement the Virginia Birth-Related Neurological Injury Compensation Program. A 2002 report from the state's Joint Legislative Audit and Review Commission found that the program caused an almost immediate increase in the availability of affordable malpractice insurance for obstetricians. The "no-fault" feature of the program allows all children who meet the program's qualifications to receive benefits, regardless of whether the doctor was at fault; the report found that the program was able to serve more children than the tort system, while providing more generous benefits per child, on average.

Critics of the proposed Maryland legislation argue that a fund would inadequately discipline negligent doctors. Whether or not this shift of incentives has had any actual effect on the health outcomes of infants is unclear, but a 2008 paper published in the *American Journal of Law and Medicine* noted that deterrence and doctor incentives were simply not a "founding objective" of the Virginia program.

— WENDY MORRISON