

NOT JUST AIR POLLUTION: HOW THE CLEAN AIR ACT CAN FIX ZONING, TRANSPORTATION, AND AFFORDABLE HOUSING

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The Clean Air Act of 1970 produced a revolution in environmental law. From its unique approach to federalism to its technology forcing provisions, it remains an innovative statute to this day. In light of the growing threat posed by climate change, federal administrators have worked to adapt its text to deal with greenhouse gasses and carbon emissions. Global warming, though, is not the only context in which the Clean Air Act (CAA) can be used in ways not originally intended. Although not meant as an urban planning law, the CAA's Transportation Control Plans (TCPs) offer an opportunity to promote smarter growth and sustainable cities on a national scale.

I. BACKGROUND

Cities are not shaped by accident but are instead a product of statutes, codes, and judicial opinions. From transportation policy to racial discrimination to affordable housing programs, decisions by federal, state, and local policymakers have created the blueprint for the modern American city. This section reviews the history of urban planning in the United States to show that commonplace features of our municipal environments, from the width of our streets to the size of residential lots, were not random occurrences but instead the product of reasoned decision-making. This section will also show that many of the policy choices that made sense ten, fifty, or a hundred years ago are now the source of many of the ills that affect contemporary cities.

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Since New York City introduced zoning to North America in 1916,¹ the power to regulate land use has remained almost exclusively with municipalities.² The legal framework for municipal zoning in America can be traced back to *Village of Euclid v. Ambler Realty Co.* where the Supreme Court specifically authorized use zoning, even when it substantially reduced a property owner's land value.³ In 1922, Euclid, Ohio used the then-innovative practice of zoning to prevent Cleveland's industrial growth from altering the primarily residential character of the village.⁴ Euclid created the outline for modern zoning when it divided the land within its borders across six uses, three height ranges, and four area classifications.⁵ Ambler Realty, a property owner that intended to develop sixty-eight acres for industrial uses, found that its land had been restricted to residential and community development.⁶ Holding for the village, the Court found zoning to be a constitutional exercise of a municipality's police power.⁷ Applying the law of nuisance, the Court wrote, "[a] nuisance may be merely a right thing in the wrong place, like a pig in the parlor instead of the barnyard. If the validity of the legislative classification for zoning purposes be fairly debatable, the legislative judgment must be allowed to control."⁸

Although the federal government took a hands-off approach to zoning, decisions made in Washington played an outsized role in shaping American cities. In 1938, the Federal National Mortgage Association (now called Fannie Mae)⁹ was created to subsidize new home construction during the depths

1. Sonia A. Hirt, *Split Apart: How Regulations Designated Populations to Different Parts of the City*, in *ONE HUNDRED YEARS OF ZONING AND THE FUTURE OF CITIES* 3, 17 (Amnon Lehavei ed., 2018). Today, 95 percent of all American cities have some form of zoning. SONIA A. HIRT, *ZONED IN THE USA* 3 (2014). Houston is the only major city without zoning. *Id.* at 187.

2. Hawaii is the only exception where land use is set on a state level. Karl Gertel, *Statewide Zoning of Land: Hawaii's Experience*, 43 *W. AGRIC. ECON. ASS'N* 147, 147 (1970).

3. 272 U.S. 365 (1926).

4. *Id.* at 379–80.

5. *Id.* at 380.

6. *Id.* at 379, 382–85.

7. *Id.* at 387. Police power is the authority for states to regulate the actions of their citizens to promote health, safety, and general welfare. *See, e.g.*, *Jacobson v. Massachusetts*, 197 U.S. 11 (1905).

8. *Vill. of Euclid*, 272 U.S. at 388.

9. KENNETH T. JACKSON, *CRABGRASS FRONTIER: THE SUBURBANIZATION OF THE UNITED STATES* 216 (1985).

of the Great Depression by providing loans to new buyers.¹⁰ But by prioritizing loans in suburban areas while refusing to grant them in downtown neighborhoods, Fannie Mae foreclosed the opportunity of homeownership in America's cities.¹¹ Later, the Housing Act of 1949 made home ownership a national priority by providing federal support for urban slum clearance and increasing the Federal Housing Administration (FHA) budget for mortgage insurance.¹² Following World War II, Veteran Administration (VA) loans and the Servicemen's Readjustment Act helped build 2.5 million new homes in three years in the nation's fast growing suburbs.¹³ Eventually, the FHA and VA provided mortgages for eleven million new homes, often for less than the cost of paying rent.¹⁴ Until China's rapid urban expansion in the early 2010s, the post-war period in the United States saw the fastest pace of new home construction in global history.¹⁵

The federal policy that may have played the largest role in the development of urban sprawl, however, officially had nothing to do with housing.¹⁶ The 1956 National Interstate and Defense Highways Act authorized the construction, within ten years, of forty-one thousand miles of high-speed surface roadways connecting American cities.¹⁷ At the same time, rates of dependence on private cars for personal transportation

10. MOLLY O'MEARA SHEEHAN, *CITY LIMITS: PUTTING THE BRAKES ON SPRAWL* 13 (Jane Peterson ed., 2001).

11. *Id.*

12. U.S. Dep't of Housing and Urban Dev., Major Legislation on Housing and Urban Development Enacted Since 1932, at 3 (July 21, 2014), https://www.hud.gov/sites/documents/legs_chron_june2014.pdf [<https://perma.cc/Z5HA-65N2>].

13. @Urban_Future, *3-Year Period That Changed Cities Forever—The Veterans' Emergency Housing Program*, CITY CLOCK MAG. (June 17, 2014), <http://www.cityclock.org/program-changed-cities-forever/> [<https://perma.cc/8YGX-63SL>].

14. ANDRES DUANY, ELIZABETH PLATER-ZYBERK & JEFF SPECK, *SUBURBAN NATION* 7–8 (North Point Press, 10th Anniversary ed. 2010) (citing JACKSON, *supra* note 9, at 205–08).

15. @Urban_Future, *supra* note 13.

16. Robert Fishman, *The American Metropolis at Century's End: Past and Future Influences*, 11 HOUSING POL'Y DEBATE 199, 200 (2000) (listing the "1956 Interstate Highway Act and the dominance of the automobile" as the single greatest influencer "on the American metropolis of the past 50 years").

17. Richard F. Weingroff, *Federal-Aid Highway Act of 1956: Creating the Interstate System*, FED. HIGHWAY ADMIN.: PUB. ROADS (1996), <https://www.fhwa.dot.gov/publications/publicroads/96summer/p96su10.cfm> [<https://perma.cc/5XD4-4H3G>].

exploded.¹⁸ From 1950 to 1990, the population of the fifty-eight largest U.S. metropolitan areas increased 80 percent while the geographic area of those cities increased 305 percent.¹⁹ Commuters began using the interstate highway system not only to travel between cities, but also to get between jobs in the city center and homes in outer suburbs.²⁰ By 1950, the suburban population was growing at a rate ten times that of city centers.²¹ Due to the emergence of the automobile as the country's primary mode of transportation, “[b]etween one third and one half of urban America’s land is typically dedicated to the driving and parking of vehicles.”²² Two-thirds of Los Angeles is devoted to automobile use, and in Houston there is “the equivalent of 30 asphalt parking spaces per resident.”²³

An often-overlooked element of urban planning is the role played by traffic engineers. “The desire for increased traffic volume—‘unimpeded flow’—has resulted in wider streets. While travel lanes on old streets are often only nine feet wide or less, new streets are usually required to have twelve-foot

18. SHEEHAN, *supra* note 10, at 13.

19. *Id.*

20. *History and Cultural Impact of the Interstate Highway System*, UNIV. VT. LANDSCAPE CHANGE PROGRAM, http://www.uvm.edu/landscape/learn/impact_of_interstate_system.html [<https://perma.cc/43RJ-L5XQ>]. The transformation of the American city was hardly inevitable—many foresaw the long-term negative effects a mass migration to the suburbs would have and attempted to warn against such exodus. In 1947, Thomas Harris MacDonald, who had served as the head of the U.S. Bureau of Public Roads in the 1920s, told the American Association of State Highway Officials they should end “the preferential use of private automobiles [and] promote the patronage of mass transit,” stating that “unless this reversal can be accomplished . . . the traffic problems of the larger cities may become well nigh insoluble.” SHEEHAN, *supra* note 10, at 36 (citing STEPHEN B. GODDARD, *GETTING THERE: THE EPIC STRUGGLE BETWEEN ROAD AND RAIL IN THE AMERICAN CENTURY* (Univ. Chi. Press 1994)). President Dwight Eisenhower, the grandfather of the interstate highway system, envisioned free-ways connecting cities, but circumventing urban areas. *Id.* at 65. When he passed a major road construction project cutting through northwest Washington D.C. on his way to Camp David in 1959, he “was shocked to learn that the highway project was part of his interstate system.” *Id.*

21. Ronald D. Utt, *The Federal Role in Smart Growth*, in *A GUIDE TO SMART GROWTH* 93, 97 (Jane S. Shaw & Ronald D. Utt eds., 2000). By the 1990s, 83 percent of Americans stated a preference for a single-family detached house in an outer suburb compared to a townhouse of the same price in an urban setting. Samuel R. Staley, *Reforming the Zoning Laws*, in *A GUIDE TO SMART GROWTH* 61, 62 (Jane S. Shaw & Ronald D. Utt eds., 2000). And by 2011 nearly two-thirds of the American housing stock was detached single-family homes. Hirt, *supra* note 1, at 18, 20.

22. DUANY, *supra* note 14, at 138.

23. *Id.* (citing JANE HOLZ KAY, *ASPHALT NATION* 64 (1998)).

lanes.”²⁴ Intersection design, too, plays a major role in how people interact with their environment, and thus how urban planners design metropolitan and suburban areas. The availability of crosswalks, the presence of bicycle-specific signals, and the total number of lanes to cross all have an effect on an individual’s decision to walk, ride, or drive.²⁵ Modern intersections are a primary cause of congestion,²⁶ and they are designed mostly around the safety of automobile drivers as opposed to other types of users.²⁷ Traffic engineers, who strive to maximize the flow of travelers, focus primarily on drivers as opposed to other types of users.²⁸

The politics of housing affordability and growth management has also long played a role in shaping American cities. Together, municipal zoning, building codes, and judicial opinions have been used to restrict new development, particularly denser types of housing. By forcing uniformity and homogeneity, these measures prevent diversity, not just in land use but in residences as well. The *Mount Laurel* doctrine, likely the high-water mark of judicial intervention into urban planning, created an affirmative mandate in New Jersey for municipalities to provide a realistic opportunity for residency by poor and moderate income families.²⁹ There, the New Jersey Supreme Court strongly criticized requirements for minimum home and

24. DUANY, *supra* note 14, at 65. These wider streets can be traced to Cold War civil defense standards where “street design must facilitate evacuation before, and cleanup after, a major ‘nuclear event.’” *Id.* Today street width is often dictated by local fire departments’ wish to easily maneuver increasingly large vehicles. *Id.*

25. FED. HIGHWAY ADMIN., UNIVERSITY COURSE ON BICYCLE AND PEDESTRIAN TRANSPORTATION 2 (Publication No. FHWA-HRT-05-133, July 2006), <http://www.pedbikeinfo.org/collateral/lessons/Lessons1-24.pdf> [<https://perma.cc/GT98-XUXH>].

26. *Intersection Safety*, FED. HIGHWAY ADMIN., <https://safety.fhwa.dot.gov/intersection/> (last modified Dec. 9, 2015) [<http://perma.cc/NH8A-5EW7>].

27. Paul Salmon & Gemma Read, *We Can Design Better Intersections That Are Safer for All Users*, THE CONVERSATION (June 11, 2018, 12:40 AM), <http://theconversation.com/we-can-design-better-intersections-that-are-safer-for-all-users-92178> [<https://perma.cc/3M4J-SZEB>].

28. DUANY, *supra* note 14, at 64; *see also, e.g.*, DEP’T OF TRANSPORTATION, *Pedestrian Control Features*, in MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES § 4E.01 Pedestrian Signal Heads (2009 ed.) (setting a minimum recommended walk signal at an intersection of seven seconds and stating a period “as short as 4 seconds may be used” if conditions warrant).

29. *See* S. Burlington Cty. NAACP v. Twp. of Mount Laurel, 336 A.2d 713, 724 (N.J. 1975) [hereinafter *Mount Laurel I*].

lot sizes,³⁰ prohibitions on multifamily housing, and rules setting a maximum number of bedrooms a house may have.³¹ According to the court, such restrictions produced “an acute national housing shortage,” the brunt of which was “borne by persons with low or moderate incomes.”³² But the U.S. Supreme Court weighed in on housing regulations two years later in *Village of Arlington Heights v. Metropolitan Housing Development Corp.*, where it held that the petitioner’s ban on multifamily housing in the center of the village was constitutional—even though it effectively barred minority and poor families from obtaining housing—because it had been uniformly applied and was not created with a “discriminatory purpose.”³³

Today, the provision of affordable housing remains controversial.³⁴ Although *Mount Laurel* remains good law in New

30. One of the original justifications for minimum lot sizes dealt with the need to dispose of fluid waste—specifically sewage and wastewater. Before the widespread adoption of municipal sewers in the suburbs, households relied on septic systems to disperse their waste. In the Midwest, half an acre was often considered the “minimal area needed to serve the waste needs of households adequately.” Samuel R. Staley, *Reforming The Zoning Laws*, in *A GUIDE TO SMART GROWTH* 61, 67 (Jane S. Shaw & Ronald D. Utt eds., 2000). Today, however, sewer systems are widespread, leading some to conclude that the continued use of these statutes is an attempt to prevent individuals unable to afford to purchase larger lots from moving to a community. See SHEEHAN, *supra* note 10, at 13 (citing JACKSON, *supra* note 9) (“By requiring development on large lots, [suburban towns] could exclude the poor.”).

31. *Mount Laurel I*, 336 A.2d at 731–32 (“As a developing municipality, Mount Laurel must, by its land use regulations, make realistically possible the opportunity for an appropriate variety and choice of housing for all categories of people who may desire to live there, of course including those of low and moderate income. It must permit multi-family housing, without bedroom or similar restrictions, as well as small dwellings on very small lots, low cost housing of other types and, in general, high density zoning, without artificial and unjustifiable minimum requirements as to lot size, building size and the like, to meet the full panoply of these needs.”).

32. *Mount Laurel I*, 336 A.2d at 737–39, 740–41 (“It has been estimated that over 10 million dwelling units would be needed to provide each family in the country with adequate housing. . . . As of 1970, it was estimated that not only were half of all low income families in [New Jersey] obliged to live in inadequate housing, but so were approximately 125,000 families with moderate incomes.”). The court was also strongly critical of the “filter down” argument that new high-priced housing helps low- and moderate-income families: “In reality, most of these vacancies are absorbed by the enormous lag between population growth and new housing construction. The housing which does ‘filter down’ to persons with low or moderate incomes is often badly dilapidated and in deteriorating neighborhoods.” *Id.* at 741.

33. 429 U.S. 252, 270–71 (1977).

34. See, e.g., Anthony Downs, *Growth Management, Smart Growth, and*

Jersey, it has been limited to “growth areas” only.³⁵ Additionally, “[o]nce a municipality has satisfied its fair share,” the New Jersey Supreme Court held, “the *Mount Laurel* doctrine requires it to do no more.”³⁶

II. THE MODERN CITY IS BROKEN

Today, rules that once facilitated cheap home ownership in the suburbs now shackle millions of Americans to overpriced rental units in the city or long commutes on congested roads.³⁷ For too many, the simple task of buying a gallon of milk and some eggs requires a lengthy drive.³⁸ Parents have become semiprofessional chauffeurs, spending more time driving to and from Little League games and band concerts than actually engaging with their children.³⁹ Acres of cities’ cores have been

Affordable Housing, BROOKINGS INST. (May 29, 2003), <https://www.brookings.edu/on-the-record/growth-management-smart-growth-and-affordable-housing/> [<https://perma.cc/Q8X6-WG88>]; Tanay Warrker, *NYC’s Controversial New Affordable Housing Proposals, Explained*, CURBED N.Y. (Feb. 8, 2016), <https://ny.curbed.com/2016/2/8/10940798/nycs-controversial-new-affordable-housing-proposals-explained> [<https://perma.cc/QHU6-GAGF>]; Joe Linton, *L.A. Planning Committee Approves Controversial Affordable Housing Linkage Fee*, STREETS BLOG LA (Aug. 23, 2017), <https://la.streetsblog.org/2017/08/23/l-a-planning-committee-approves-controversial-affordable-housing-linkage-fee/> [<https://perma.cc/E8JM-FKQZ>]; Vernal Coleman, *City Revives Plan to Build Affordable Housing at Fort Lawton*, SEATTLE TIMES (June 19, 2017), <https://www.seattletimes.com/seattle-news/city-revives-plan-to-build-affordable-housing-at-fort-lawton/> [<https://perma.cc/QD99-EHSJ>]; Jake Blumgart, *The Politics Behind Philadelphia’s Affordable Housing Stalemate*, PHILA. BUS. J. (Jan. 5, 2018), <https://www.bizjournals.com/philadelphia/news/2018/01/05/affordable-housing-inclusionary-zoning-quinones.html> [<https://perma.cc/BF87-SEDZ>].

35. *S. Burlington Cty. NAACP v. Twp. of Mount Laurel*, 456 A.2d 390, 418 (N.J. 1983) [hereinafter *Mount Laurel II*] (holding that all New Jersey communities must provide their “fair share” of affordable housing, but limiting the rule to only communities experiencing population growth).

36. *N.J. Farm Bureau, Inc. v. Twp. of E. Amwell*, 882 A.2d 388, 394–95 (N.J. Super. Ct. App. Div. 2005) (quoting *Mount Laurel II*, 456 A.2d at 442).

37. This Comment should not be read as a call to eliminate all subdivisions— if someone wants to live in a single-family detached house on a large lot and drive into work every day, he or she should have the option to do so.

38. See Leslie Horn, *Which Americans Have the Longest Drive to the Grocery Store?*, GIZMODO (Aug. 29, 2013, 11:40 AM), <https://gizmodo.com/which-americans-have-the-longest-drive-to-the-grocery-s-1221441087> [<https://perma.cc/EU2W-VDB6>] (“[F]or 36 percent of the country, the closest store is more than ten miles away, and the median distance is seven miles.”); Angie Schmitt, *5 Things the USDA Learned From Its First National Survey of Food Access*, STREETS BLOG USA (Apr. 10, 2015), <https://usa.streetsblog.org/2015/04/10/5-things-the-usda-learned-from-its-first-national-survey-of-food-access/> [<https://perma.cc/DBA2-3WWH>] (“The average household traveled 3.79 miles to their primary grocery . . .”).

39. DUANY, *supra* note 14, at 116–17, (noting gender dynamics where the

paved over for new road lanes and parking lots, with devastating impacts on natural spaces.⁴⁰ These consequences include destruction of the environment, harm to both young and old populations, and a failure to serve the desires of the millennial generation.

The environmental consequences of suburban sprawl have been well documented. Low density development takes up a significant amount of land.⁴¹ Reliance on private automobiles for transportation contributes significantly to global warming and air pollution.⁴² Single-family detached homes are energy inefficient, leading “suburban residents [to] spend huge amounts of energy heating and powering their larger homes.”⁴³ Sprawl can be disastrous for water quality by sealing topsoil beneath acres of asphalt, leading to chemical runoff into rivers, streams, and wetlands.⁴⁴

One-third of Americans are “too young, too old, or too poor to drive.”⁴⁵ These “stranded Americans” become isolated in the suburbs, unable to get to work, school, or a store by themselves. The low density and large geographic area of most American urban areas makes mass transit inefficient and makes walking

mother is often forced to give up her career to transport children).

40. See generally JAMES HOWARD KUNSTLER, *THE GEOGRAPHY OF NOWHERE: THE RISE AND DECLINE OF AMERICA’S MAN-MADE LANDSCAPE* (1993) (providing a historical account of American urban planning, starting with the Pilgrims to the rise of the suburbs); SAMUEL I. SCHWARTZ & WILLIAM ROSEN, *STREET SMART: THE RISE OF CITIES AND THE FALL OF CARS* (2015) (reviewing emergence of roads as America’s primary mode of transportation); Michael P. Johnson, *Environmental Impacts of Urban Sprawl: A Survey of the Literature and Proposed Research Agenda*, 33 ENV’T & PLAN. 717 (2001) (surveying the research on the environmental impacts of urban sprawl); Matthew E. Kahn, *The Environmental Impact of Suburbanization*, 19 J. POL’Y ANALYSIS & MGMT. 569 (2000) (noting that sprawl uses more fuel, land, and other resources due to lower density).

41. See generally DUANY, *supra* note 14; JAMES HOWARD KUNSTLER, *THE GEOGRAPHY OF NOWHERE: THE RISE AND DECLINE OF AMERICA’S MAN-MADE LANDSCAPE* (1993); SAMUEL I. SCHWARTZ, *STREET SMART: THE RISE OF CITIES AND THE FALL OF CARS* (2015); Johnson, *supra* note 40; Kahn, *supra* note 40.

42. BASUDEB BHATTA, ANALYSIS OF URBAN GROWTH AND SPRAWL FROM REMOTE SENSING DATA 33 (2010); Jenny Green, *Effect of Car Pollutants on the Environment*, SCIENCING (Mar. 13, 2018), <https://sciencing.com/effects-car-pollutants-environment-23581.html> [<https://perma.cc/8FGC-DSRU>].

43. Eric Brown, *How Suburban Sprawl is Killing the Environment*, INT. BUS. TIMES (Jan. 31, 2014, 12:48 PM), <http://www.ibtimes.com/how-suburban-sprawl-killing-environment-1552536> [<https://perma.cc/ZXY9-YFTC>].

44. *What is Sprawl, and How Do You Measure It?*, FRONTLINE (Apr. 21, 2009), <https://www.pbs.org/wgbh/pages/frontline/poisonedwaters/themes/sprawl.html> [<https://perma.cc/VRW3-VZWP>].

45. DUANY, *supra* note 14, at 115 (based on statistics from 2010).

or bicycling impossible for nearly all trips.⁴⁶ As a result, the average American household needs thirteen vehicle trips per day.⁴⁷ This affects not only people who are too young to drive, but also seniors who have given up (or lost) their licenses.⁴⁸ Unable to leave their houses, many suburban seniors are forced to spend their golden years relying on others for transportation, or living in retirement homes.⁴⁹

Low-income residents often find themselves unwelcome in the modern American city. The affluent town of Huntington, New York, the subject of the *Huntington Branch NAACP v. Huntington* litigation, has been a microcosm of the difficulty of ensuring that affordable housing is available in many communities.⁵⁰ Though the town was explicitly ordered in 1988 “to rezone the 14.8 acre Matinecock Court site located at the corner of Elwood and Pulaski Roads in Huntington Township to [multifamily] status,”⁵¹ three decades later ground still has not been broken⁵² and 1,500 people have joined the “Stop Matinecock Court” Facebook group opposing affordable housing in their community.⁵³

46. Wendell Cox, *Coping With Traffic Congestion*, in A GUIDE TO SMART GROWTH 39, 55 (Jane S. Shaw & Ronald D. Utt eds., 2000).

47. DUANY, *supra* note 14, at 116 (“Dependent always on some adult to drive them around, children and adolescents are unable to practice at becoming adults. They cannot run so simple a household errand as picking up a carton of milk. They cannot bicycle to the toy store and spend their money on their own. They cannot drop in on their mother at work. Most cannot walk to school. Even pickup baseball games are a thing of the past, with parents now required to arrange carpooling . . .”).

48. AARP, BEYOND 50.05: A REPORT TO THE NATION ON LIVABLE COMMUNITIES, at 77 (Apr. 29, 2005), https://assets.aarp.org/rgcenter/il/beyond_50_communities.pdf.

49. Joseph Stromberg, *Once Seniors Are Too Old to Drive, Our Transportation System Totally Fails Them*, VOX (June 12, 2015, 9:40 AM), <https://www.vox.com/2015/6/12/8768827/seniors-aging-car-driving> [<https://perma.cc/D45C-2RT2>].

50. 844 F.2d 926, 928 (2d Cir. 1988).

51. *Id.* at 942.

52. Editorial Board, *The Tide Might Be Turning on Long Island Affordable Housing*, NEWSDAY (Mar. 29, 2017, 7:05 PM), <https://www.newsday.com/opinion/editorial/tide-s-turning-on-long-island-affordable-housing-1.13334288> [<https://perma.cc/4M6N-JYAE>].

53. *Stop Matinecock Court*, FACEBOOK, <https://www.facebook.com/stopmatinecockcourt/> [<https://perma.cc/92P3-FZVF>] (as of February 2019, the page had 1,513 “likes” and 1,430 “followers”). “While we recognize that home ownership is a fundamental part of the American Dream and everyone has a right to pursue that dream we, as the residents of Northport and East Northport, feel that this project infringes on OUR American Dream.” *Id.* (describing the purpose of the organization).

Millennials' needs are especially unmet by the modern American city. Today's young professionals have rejected the suburban model of single-family detached housing of yesteryear.⁵⁴ It is not exclusively an issue of affordability—millennials are spending more on rent,⁵⁵ renting for longer periods,⁵⁶ and saving larger amounts of money⁵⁷ than prior generations. Instead, millennials are looking for something they cannot find in the suburbs: the city.⁵⁸ The next generation of home, apartment, and condominium dwellers are seeking smaller homes in a more urban environment with public transportation options, but cities and towns have been slow to reform their building codes to accommodate contemporary demands.⁵⁹ Downtowns, from which older generations fled, have

54. Homeownership by thirty-five-year-olds reached a record low (31 percent) in 2015. Chris Nicholas, *Dispelling Myths About Millennials and Homeownership*, POLITIFACT: CAL. (Mar. 22, 2017, 6:00 AM) <http://www.politifact.com/california/article/2017/mar/22/dispelling-myths-about-millennials-and-homeownersh/> [https://perma.cc/E579-GK4Z] (noting a relatively new trend rather than the product of long-term decline: in 1995 the homeownership rate for thirty-five-year-olds was 39 percent, and in 2005 it was 43 percent).

55. Akin Oyedele, *6 Reasons Why More Millennials Aren't Buying Homes*, BUS. INSIDER (June 5, 2017, 12:52 PM), <http://www.businessinsider.com/millennial-homeownership-lower-2017-6/#housing-is-less-affordable-for-millennials-compared-to-the-overall-population-1> [https://perma.cc/SWS2-7JLW]. *But see* Catherine Rampell, *Millennials Aren't Buying Homes. Good for Them*, WASH. POST (Aug. 22, 2017), https://www.washingtonpost.com/opinions/millennials-arent-buying-homes-good-for-them/2016/08/22/818793be-68a4-11e6-ba32-5a4bf5aad4fa_story.html [https://perma.cc/9H8E-TUNN]; Emily Sullivan & Sonari Ginton, *As Millennials Get Older, Many Are Buying SUVs to Drive to Their Suburban Homes*, NPR (Sept. 15, 2017, 4:37 PM), <https://www.npr.org/2017/09/15/551232392/as-millennials-get-older-many-are-buying-suvs-to-drive-to-their-suburban-homes> [https://perma.cc/A7EX-QFCY].

56. Diana Olick, *Millennials Cause Homeownership Rate to Drop to Lowest Level Since 1965*, CNBC: REALITY CHECK (July 28, 2016, 1:17 PM), <https://www.cnbc.com/2016/07/28/millennials-cause-homeownership-rate-to-drop-to-lowest-level-since-1965.html> [https://perma.cc/4GL7-UBFD].

57. BANK OF AM., 2018 BETTER MONEY HABITS MILLENNIAL REPORT 2 (Winter 2018), <https://bettermoneyhabits.bankofamerica.com/content/dam/bmh/pdf/ar6vnl9-boabmh-millennial-report-winter-2018-final2.pdf> [https://perma.cc/GT5S-H4KT].

58. The millennial generation is moving downtown in record numbers: more than 35 percent now live in city centers. Oyedele, *supra* note 55, at chart 5.

59. Alana Semuels, *Why Are Developers Still Building Sprawl?*, ATLANTIC (Feb. 24, 2015), <https://www.theatlantic.com/business/archive/2015/02/why-are-people-still-building-sprawl/385741/> [https://perma.cc/9NPG-T9UG]; Press Release, Nat'l Ass'n of Realtors, *Millennials Favor Walkable Communities, Says New NAR Poll* (July 28, 2015), <https://www.nar.realtor/newsroom/millennials-favor-walkable-communities-says-new-nar-poll> [https://perma.cc/V35G-JRQ3] (“[T]he survey found that Americans prefer walkable communities more so than they

been embraced by young people, more than 35 percent of whom now live in city centers.⁶⁰

America's current approach to urban planning is failing. The environment, the young, the old, and the poor all bear the cost of current laws that encourage low-density development of land on cities' fringes. Millennials with savings and a desire to purchase a home find themselves in a housing market with limited suitable supply.

III. A PATH TO BETTER URBAN PLANNING

City planners should encourage mixed-use development by implementing zoning rules that permit buildings to contain both commercial and residential functions. Zones of differing, but compatible, functions should be located close to one another. Instead of maintaining strict separation between houses, businesses, offices, and clean industrial facilities, planners should encourage mixed-use development and consider the five-minute walk when drawing zoning maps. "Experience suggests that [a quarter mile] is a distance . . . most Americans simply feel dumb driving."⁶¹ When shops, schools, and parks are located within a five-minute walk of someone's home, that person is far more likely to choose to walk than to drive.⁶²

To maximize the number of people that live in that walking range, cities should eliminate minimum square foot and maximum bedroom requirements. Denser construction, reduced lot sizes, multifamily units, and smaller apartments will create the density necessary to ensure an adequate customer base for local retail. Larger shopping districts should also be integrated into housing developments instead of attached on peripheral arterial roads. Although such shopping districts may be further than a five-minute walk away for some resi-

have in the past. Forty-eight percent of respondents reported that they would prefer to live in communities containing houses with small yards but within easy walking distance of the community's amenities, as opposed to living in communities with houses that have large yards, but they have to drive to all amenities. And while 60 percent of adults surveyed live in detached, single-family homes, 25 percent of those respondents said they would rather live in an attached home and have greater walkability.").

60. Oyedele, *supra* note 55, at chart 5.

61. DUANY, *supra* note 14, at 199 ("[C]ollege students seem to put up with 20 minutes," or about four times as far).

62. *Id.*

dents, communities can make bicycling a viable alternative by placing these areas in neighborhoods (instead of along a busy highway), and by providing dedicated bike lanes or trail connections.⁶³

Transportation Control Plans (TCPs), which were authorized by Section 110 of the CAA, provide a means for a national approach to improved urban planning. The provision created federally enforceable requirements that state governments impose land use and transportation controls to reduce air pollution.⁶⁴ Although this program was greatly reduced in the face of public outcry,⁶⁵ its revival could lay the tracks for a unified national approach to more sustainable urban growth.⁶⁶

Intended to reduce air pollution emissions from mobile sources, TCPs formerly gave the Environmental Protection Agency (EPA) sweeping authority to mandate that cities take measures to reduce vehicle usage, such as subsidizing mass transit, creating vehicle free zones, and “prevent[ing] future urban growth from generating large volumes of traffic.”⁶⁷ Improvements to pedestrian and bike facilities, such as separate travel lanes and storage lockers, were also called for.⁶⁸

Perhaps the most sweeping element of the TCPs, though, was a mandate that the EPA implement any “land-use and transportation controls” that “may be necessary” to meet air pollution limits.⁶⁹ No further specifications were provided,

63. See Trish Riggs, *Trail-Oriented Development: The Next Frontier in People-Friendly Design*, URBANLAND (Apr. 25, 2016), <https://urbanland.uli.org/industry-sectors/infrastructure-transit/trail-oriented-development-new-uli-report-looks-next-frontier-people-friendly-design/> [<https://perma.cc/2R9S-3WTT>].

64. Daniel R. Mandelker & Susan B. Rothschild, *The Role of Land Use Controls in Combating Air Pollution Under the Clean Air Act of 1970*, 3 ECOLOGY L.Q. 235, 238 (1973) (citing 42 U.S.C. § 1857c-5(a)(2)(B) (1970)).

65. GREIG W. HARVEY & ELIZABETH A. DEAKIN, STATE AND LOCAL ROLES IN TRANSPORTATION CONTROL PLANNING 1 (1976), <http://onlinepubs.trb.org/Onlinepubs/trr/1976/599/599-001.pdf> [<https://perma.cc/YDX6-8QCY>].

66. Philip Weinberg, *Public Transportation and Clean Air: Natural Allies*, 21 ENVTL. L. 1527, 1531–33 (1991) (though author concludes that TCPs will be ineffective without increase government spending on mass transit).

67. White Paper, EPA, *The Clean Air Act and Transportation Controls* 22, 30–32 (Aug. 1973), <https://www.epa.gov/nscep> (enter “400974001” in search query).

68. 42 U.S.C. § 7408(f)(1)(A) (2012).

69. Clean Air Act of 1970, Pub. L. No. 91-604, § 110(a)(2)(B), 84 Stat. 1676 (1970). “Land-use” and “transportation controls” were undefined in the statute, but in the only case considering the meaning of the terms, the First Circuit concluded that they entailed traditional local zoning authority. *S. Terminal Corp. v. EPA*, 504 F.2d 646, 668–69, 676 (1st Cir. 1974) (authorizing the EPA to reduce

seemingly granting federal administrators unfettered authority to rewrite cities' zoning and building codes.⁷⁰ The reaction was swift. By 1975, just five years after the CAA was passed, the District of Columbia Court of Appeals held that the bike and bus lane components of TCPs were outside the federal government's constitutional authority.⁷¹ In 1977 the EPA was stripped of its power to use land use controls to fight air pollution, and Congress explicitly prohibited the agency from imposing urban growth controls.⁷²

In early 2001, the EPA instituted a program where cities with high levels of air pollution would receive federal credits for promoting sustainable growth principles.⁷³ While nonbinding, these incentives could be a model for a larger federal role in land use control. The federal government could continue the incentive-based approach and encourage cities to implement specific zoning and land use rules in exchange for grants.⁷⁴ Unfortunately, in the nearly two decades since these incentives have been offered, they have had minimal impact—suburbs have continued to grow, and public transit systems remain inadequate.⁷⁵

Alternatively, reauthorizing the TCP program would allow the EPA to require states to impose sustainable urban planning techniques, and to create a federally enforceable mandate under the provisions of the CAA. To preserve local control, Congress may wish to give cities a first shot at implementing the ideals of sustainable urban planning. In this scenario, only a failure to meet the density requirements or the predetermined goals of increased public transit and nonmotorized travel would trigger federal intervention. The constitutionality of the

the number of parking spaces available in downtown areas).

70. Mandelker & Rothschild, *supra* note 64, at 238.

71. *District of Columbia v. Costle*, 567 F.2d 1091, 1093 (D.C. Cir. 1977); *District of Columbia v. Train*, 521 F.2d 971, 987 (D.C. Cir. 1975) (citing the Tenth Amendment), *vacated sub nom. as moot by EPA v. Brown*, 431 U.S. 99 (1977). For additional information on the procedural posture leading up to *Train*, see Arnold W. Reitze Jr., *Air Quality Protection Using State Implementation Plans—Thirty-Seven Years of Increasing Complexity*, 15 VILL. ENVTL. L.J. 209, 344–48 (2004).

72. Brian Stone Jr., *Air Quality by Design*, 23 J. PLAN. & EDUC. RES. 177, 183 (2003) (noting that these changes were part of the Clean Air Act Amendments of 1977).

73. *Id.* at 178.

74. The Federal “Race to the Top” approach to education reform could be an economical model.

75. *See supra* Part I.

original TCPs was never decided by the Supreme Court.⁷⁶ Since the 1970s, the Court has shown a willingness to allow the federal government to promulgate land-use regulations for environmental protection.⁷⁷

Independently of the federal government, cities could do much to improve their urban environments. Counterintuitively, more (not fewer) roads should be built, but those roads should be narrow and difficult to navigate. Far from being safer, “wide streets lead to an increased number of traffic accidents, since people drive faster on them.”⁷⁸ Data suggest that this increase in accidents is exponential: a thirty-six-foot-wide street is four times more dangerous than a twenty-four-foot-wide street.⁷⁹ “Posting speed limits to slow traffic on high-speed roads is futile, because people drive at the speed at which they feel safe,” not the speed that is permitted.⁸⁰ Pedestrians and bikers are less likely to use a street where people regularly drive over the speed limit, particularly if they are travelling in automotive traffic lanes.⁸¹

There are two obvious solutions. The first is to narrow streets and design unusual intersections, which would force drivers to pay more attention while driving. Narrower streets feel more dangerous, which naturally cause drivers to slow down.⁸² Not including a passing lane, or even room to get

76. See *EPA v. Brown*, 431 U.S. 99, 103 (1977) (vacating *District of Columbia v. Train* in part as moot).

77. See *Hodel v. Va. Surface Mining & Reclamation Ass’n*, 452 U.S. 264, 283 (1981) (upholding the District Court’s ruling that the Surface Mining Act’s land-use requirements fell within the Commerce Clause). *But see Nat’l Fed’n of Indep. Bus. v. Sebelius*, 132 S. Ct. 2566, 2591 (2012) (Chief Justice Roberts rejecting the federal exercise of police power).

78. DUANY, *supra* note 14, at 67.

79. *Id.* at 68.

80. *Id.* at 71.

81. Nick Summers, *Inside Google’s Plan to Build a Smart Neighborhood in Toronto*, ENGADGET (Mar. 16, 2018), <https://www.engadget.com/2018/03/16/alphabet-google-sidewalk-labs-toronto-quayside/> [<https://perma.cc/D3GD-GEY5>] (explaining that bicyclists “won’t feel safe unless they have a separation from other modes of transport”). The effect is similar even if a sidewalk or a bike lane is provided immediately adjacent to, but unprotected from, high-speed vehicle travel lanes. *Id.*

82. See James M. Daisa & John B. Peers, *Narrow Residential Streets: Do They Really Slow Down Speeds?*, in INST. TRANSP. ENGINEERS 6TH ANNUAL MEETING COMPENDIUM OF TECHNICAL PAPERS 3 (Apr. 27, 1997) (“There is a relatively strong correlation between average speed and opposing volume, particularly on narrow streets where drivers either must pull over and stop to let other vehicles pass or where the perception of street width is too narrow to judge accurately.”);

around a slow-moving vehicle, may cause temporary annoyance, but also produces slower traffic.⁸³ A review of the research on the relationship between road width and safety concluded that narrower roads were better for all travelers: drivers, cyclists, and pedestrians. Narrow streets not only produced more consistent vehicle traffic speeds, but they also reduced the number and severity of crashes.⁸⁴

Designing unusual intersections has also been shown to have a positive effect on road safety.⁸⁵ Roundabouts, for example, “are often safer, more efficient, less costly and more aesthetically appealing than conventional intersection designs . . . [and] are designed to improve safety for all users, including pedestrians and bicycles.”⁸⁶ Or consider the “Confusion Corner” in Stuart, Florida, maybe the safest intersection in the entire United States.⁸⁷ Despite the fact that seven streets and an at-grade railroad all converge, the intersection has recorded only a single accident in decades because drivers are forced to slow down and pay particular attention as they approach.⁸⁸

Second, cities should segregate traffic types. This can be done by creating separate lanes for drivers, bicyclists, and pedestrians. These lanes should be far enough apart to create both actual and apparent separation—simply putting lines with a picture of a bike in the center of a freeway lane is unlikely to inspire someone to start pedaling there. Colorado’s U.S. 36 corridor is a good example. Connecting Boulder to Denver, the roadway is a busy six-lane expressway.⁸⁹ A twelve-foot-wide bike path parallels the expressway for most of the distance, giving commuters the option to bike between the

DUANY, *supra* note 14, at 204.

83. Daisa & Peers, *supra* note 82, at 3.

84. A. Schramm & A. Rakotonirainy, *The Effect of Lane Width on Cyclist Safety in Urban Areas*, in PROCEEDINGS OF THE 2009 AUSTRALASIAN ROAD SAFETY RESEARCH, POLICING AND EDUCATION CONFERENCE (2009).

85. DUANY, *supra* note 14, at 36.

86. *Roundabouts and Mini Roundabouts*, FED. HIGHWAY ADMIN. (Feb. 6, 2018), <https://safety.fhwa.dot.gov/intersection/innovative/roundabouts/> [<https://perma.cc/NH8A-5EW7>].

87. Naftali Bendavid, *Confusion Corner Defies Accident Odds*, MIAMI HERALD, Apr. 22, 1990, at 6B.

88. *Id.*; DUANY, *supra* note 14, at 36.

89. Sarah Kuta, *After 3 ½ Years of Construction, U.S. 36 Expansion Complete*, DAILY CAMERA (Jan. 20, 2016, 6:38 PM), http://www.dailycamera.com/news/boulder/ci_29410861/us-36-boulder-turnpike-expansion-express-lanes [<https://perma.cc/B7M6-XCFE>].

cities.⁹⁰ The bike path crosses the road in several places but is always separated via an aerial bridge or under-roadway tunnel. Throughout the length of the bike path a fence and median protect cyclists from automobiles.

If a city cannot achieve this degree of separation, whether because of limited space or constrained budgets, regulations could call for some other form of barrier between vehicle and other travelers, like bollards.⁹¹ On-street parking is one particularly effective barrier because it constructs a physical and visual wall between a sidewalk and traffic lane, and it forces drivers to slow down and focus on driving.⁹²

IV. NEGATIVE IMPLICATIONS AND MITIGATION MEASURES

These reforms are not a panacea. Municipal zoning and land-use requirements drive up costs to develop new housing, and additional greenspace and parks reduce the amount of developable land in a city. Compare Houston's absence of zoning to Boulder or Portland's restrictive rules, for example. Houston is famous for its lack of zoning rules and restrictions on land use.⁹³ This has resulted in a complete free-for-all of development, with housing and businesses sharing a block and skyscrapers towering over single-family homes.⁹⁴ Thanks to Houston's seemingly limitless growth, Zillow's chief economist classified it as "one of the most affordable housing markets in the country."⁹⁵ While Houston was the nation's fastest growing

90. *US 36 Bikeway: A Highway for Cyclists*, COMMUTING SOLUTIONS, <http://commutingsolutions.org/bike/us-36-bikeway/> [<https://perma.cc/DL8A-R7E8>].

91. John Pucher & Ralph Buehler, *Safer Cycling Through Improved Infrastructure*, 106 AM. J. PUB. HEALTH 2089, 2089–91 (2016). Bollards are metal or plastic posts mounted to the ground that provide partial separation between road users. *What is a Bollard?*, RELIANCE FOUNDRY, <https://www.reliance-foundry.com/bollard/bollard-definition#gref> [<https://perma.cc/3CVQ-9C7Q>] (last updated 2017).

92. Daisa & Peers, *supra* note 82, at 4.

93. *Development Regulations*, CITY OF HOUS., <http://www.houstontx.gov/planning/DevelopRegs/> [<https://perma.cc/6GNE-MM4N>] ("The city of Houston does not have zoning but development is governed by codes that address how property can be subdivided. The City codes do not address land use.").

94. Fernando Ramirez, *The Weirdest Images to Come from Houston's Lack of Zoning*, HOUS. CHRON. (Aug. 19, 2016, 8:09 AM), <http://www.chron.com/news/houston-texas/houston/article/Weirdest-images-from-Houston-s-lack-of-zoning-laws-9171688.php> [<https://perma.cc/E4PC-4QUY>].

95. Annie Correal & Conor Dougherty, *Harvey Has Moved Out, and the Home Buyers Continue to Move In*, N.Y. TIMES, Sept. 13, 2017, at A11.

city between 2000 and 2010, the median home price was only \$144,900.⁹⁶ In contrast, Boulder and Portland, two cities noted for their restrictions on new development and protection of greenspace, are seen as increasingly unaffordable.⁹⁷

To help solve the affordability problems associated with extreme land use regulation, cities should encourage “granny flats,” backyard cottages, and basement units, each of which can increase the number of households on a lot without changing a neighborhood’s character.⁹⁸ Alternatively, municipalities can follow New York City’s lead and incentivize private developers to include affordable housing in new residential buildings. The Big Apple allows larger buildings and provides tax abatements and bond financing to builders who agree to set aside approximately 20 percent of their units for low- and moderate-income residents.⁹⁹ If rezoning will “substantially increase potential housing capacity in strong markets, the City will require a portion of the new housing developed to be permanently affordable to low- or moderate-income households in order to ensure diverse and inclusive communities.”¹⁰⁰ Further, the elimination of multifamily housing bans, large lot mandates, and minimum square foot requirements should facilitate

96. Scott Beyer, *How No Zoning Laws Works for Houston*, FEDERALIST (May 13, 2016), <http://thefederalist.com/2016/05/13/how-no-zoning-laws-works-for-houston/> [<https://perma.cc/5PL5-X2RE>]. (Though recent hurricanes produced flooding that has likely increased the value of undamaged homes.)

97. In Boulder, the average cost of a home passed \$1 million in early 2016. Shay Castle, *Cost of Average Home in Boulder Surpasses \$1 Million*, DAILY CAMERA (July 14, 2016, 5:17 PM), http://www.dailycamera.com/boulder-business/ci_30129551/cost-average-home-boulder-surpasses-1m [<https://perma.cc/NDX9-773Y>]. The following year, prices rose another 14 percent. Shay Castle, *Boulder County Home Prices Soared Nearly 14% in 2016*, DAILY CAMERA (Jan. 19, 2017, 12:54 PM), http://www.dailycamera.com/news/ci_30737646/boulder-county-home-prices-soar-nearly-14-percent [<https://perma.cc/7CZZ-6B5A>]. Portland spent much of 2016 leading the United States in rising home prices, until increases “slowed” to 7.2 percent annually. Elliot Njus, *Portland Knocked from Top 3 Metros for Rising Home Prices*, OREGONIAN: OR. LIVE (Oct. 31, 2017), http://www.oregonlive.com/front-porch/index.ssf/2017/10/portland_knocked_from_top_3_me.html [<https://perma.cc/DY3M-X9PX>].

98. See, e.g., Jon Murray, *Home Values Are Spiking Wildly in West Denver. Are Hundreds of Backyard Cottages Part of the Affordability Solution?*, DENVER POST (Nov. 29, 2017, 6:00 AM), <http://www.denverpost.com/2017/11/29/home-values-spiking-west-denver-are-hundreds-of-backyard-cottages-affordability-solution/> [<https://perma.cc/AS3T-D9W6>].

99. Julie Satow, *Living in the Mix*, N.Y. TIMES, Aug. 30, 2014, at RE1.

100. *Key Policies and Programs for the Ten-Year, Five-Borough Plan*, N.Y.C.: HOUSING, <https://www1.nyc.gov/site/housing/about/our-plan.page> [<https://perma.cc/E6U6-86XA>].

more affordable housing in areas that have traditionally been associated with urban sprawl.

The displacement of longtime, often poor and minority residents must also be considered with any urban planning project. Cities should take measures to blunt some of the worst impacts of gentrification. The New York City approach of requiring developers to set aside a certain percentage of new apartments as rent-controlled in new buildings offers one solution.¹⁰¹ Local dynamics might change that percentage in different cities, or even in different neighborhoods within a city.

Even if a city implements some of these measures, it is possible that new development will force some longtime residents to move; but affordable housing would remain available in the same area, preventing historic communities from being completely displaced. Planning commissions should also be proactive in communicating with residents who would be affected by a development project. Understanding their needs and incorporating them into the site approval process can maintain the historic character of urban communities.¹⁰²

CONCLUSION

America's zoning policies and building codes are broken. Rules once intended to promote home ownership among the rapidly expanding post-war middle class have created cities that fail their residents. Sprawl has left children, the elderly, and the poor stranded on cul-de-sacs and dead-end roads, while minority populations remain segregated in the inner-city. Huge areas of land are paved over, and millennials who want to live in walkable neighborhoods with a sense of community are forced to pay inflated rents, or follow the path laid out by Monica and Chandler from the television sitcom *Friends* and move to the suburbs.¹⁰³

It does not need to be this way. Tools like the Clean Air Act

101. Satow, *supra* note 99.

102. In this manner, Washington, D.C. has preserved the character of its Chinatown neighborhood even as the Chinese American population has fallen from "thousands" to less than 300. Shaobin Zheng, *The Rise and Fall of DC's Chinatown*, AHA TODAY (Dec. 29, 2017), <https://www.historians.org/publications-and-directories/perspectives-on-history/december-2017/the-rise-and-fall-of-dcs-chinatown> [<https://perma.cc/KW32-SRG4>].

103. *Friends: The One Where Chandler Gets Caught* (NBC television broadcast Jan. 15, 2004).

can help urban planners develop new regulations to facilitate more sustainable city growth and provide better options to stranded Americans on a national scale. Decisions made now will dictate the shape tomorrow's cities take: whether they will be filled with identical houses cut off from each other by a privacy fence and acres of asphalt, and segregated along racial and class lines; or whether they will be a diverse mix of homes, businesses, and offices. The federal government, states, and municipalities must work together to build more vibrant and more sustainable urban environments. By rewriting zoning rules, narrowing roads, and promoting denser construction, cities across the county can become the kinds of places where Americans want to live, work, and play.