

PLANNING

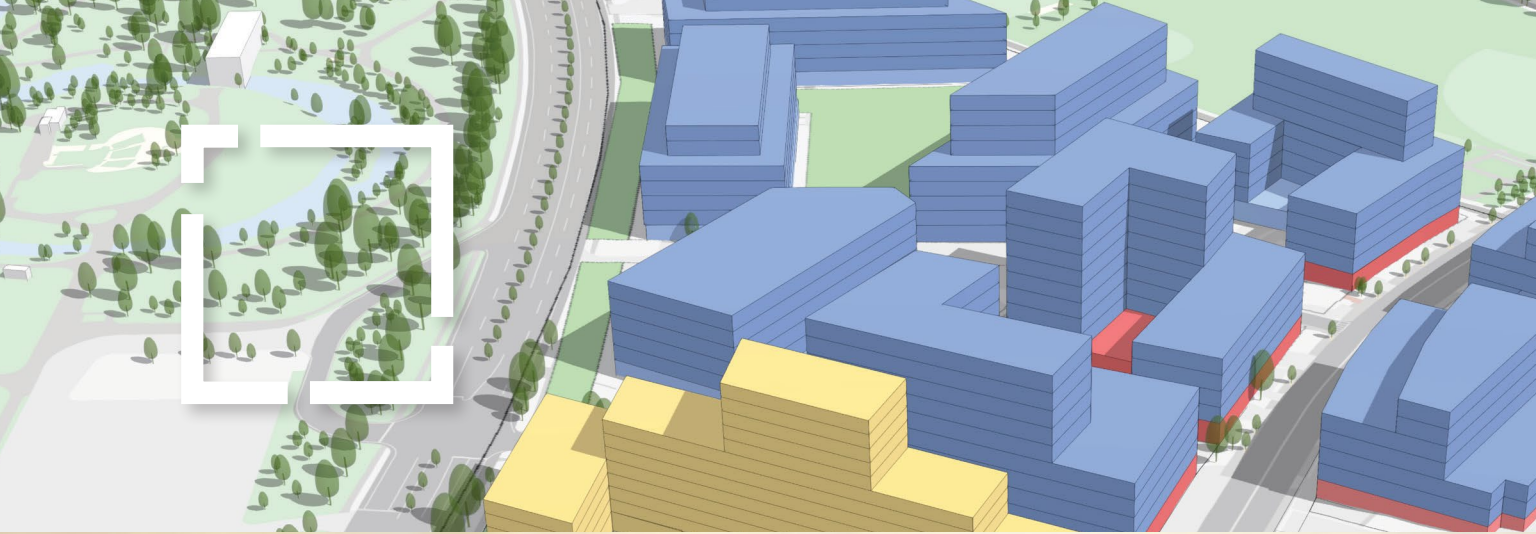
**BEYOND FAITH:
CHURCHES AS AN
ADAPTIVE REUSE
OPPORTUNITY**

**CAN LAND USE
SOLVE THE
WATER CRISIS?**

**FUNDING AN
OASIS IN A
FOOD DESERT**

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Today's planners face a greater number of challenges than they did just 10 years ago. And these challenges are more complex—from overseeing housing capacity and affordability to managing pressing comprehensive plans to tackling zoning reform—all while ensuring that decisions meet the changing needs of the community. Planners need tools that help them to

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Contents

Summer 2023 | Volume 89 | Number 2



- 20** *Can Land Use Help Solve the American West's Water Crisis?*
It's a classic—but catastrophic—supply-and-demand problem, as decades of drought coupled with sustained surges of growth run the Colorado River dry. But, planners have some solutions.

- 24** *Three Ways to Use Local Codes to Build Climate Resilience*
Regulations are a foundational part of a planner's toolkit. Here's how to work with what you've got to further climate goals.

On the cover: A performer with Le Monastère, a circus cabaret at Centre St. Jax. From top: Oasis Fresh Market isn't just about groceries; a proposal to stop pedestrian deaths.

- 29** *Beyond Faith*
Communities are finding ways to resurrect aging and empty churches, converting houses of worship into affordable housing and other mission-driven development.



INTERSECTIONS

- 06 ECONOMIC DEVELOPMENT:** Fixing a food desert
09 TRANSPORTATION: Reconsidering right on red
11 PEOPLE BEHIND THE PLANS: Disability advocate Rebekah Taussig
13 ET CETERA: The untold story of militarized urban policing

TOOLS FOR THE TRADE

- 14 HOW-TO:** The questions to ask about AVs
17 ZONING: Housing density equals downtown vibrancy
18 ENGAGEMENT: Immerse yourself in extended reality

ALSO IN THIS ISSUE

- 04 CONTRIBUTORS**
05 PERSPECTIVES: Building a leadership pipeline
34 COMMUNITY GREEN: Houston's Midtown Park

Contributors



Gary Hamer, AICP

They Built an Oasis in a Food Desert, page 6

Tasked with overseeing the implementation of PartnerTulsa's strategic plan, this Oklahoma-based planner believes strongly in advocating for equity. "I think the lesson I have learned from this case study is perseverance—this community continued to seek new stakeholders and funding partners and just didn't give up."



Bella Purdy, AICP

A Guide to Updating Local Regulations for Climate Resilience, page 24

As an urban planner and climate resilience specialist, Purdy uses traditional planning tools to transform cities in non-traditional ways. "While zoning updates may be dull and onerous for many," she says, "they can be an exciting opportunity to push the envelope and codify a vision for a climate-adapted future."



**Nadia Mian, PhD
Rick Reinhard**

Beyond Faith, page 29

To summon up Joni Mitchell, "I've looked at houses of worship from 'Both Sides Now,'" says Reinhard, a consultant for the public sector and the United Methodist Church. "Now I cannot pass a church without thinking 'mixed use.'" Mian has been researching faith-based community development for 10-plus years and "still gets excited about the possibilities that redevelopment and adaptive reuse can provide" for these community anchors.



PLANNING

THE MAGAZINE OF THE AMERICAN PLANNING ASSOCIATION

The American Planning Association will lead the way to equitable, thriving communities by creating unique insights, as well as innovative and practical approaches that enable the planning community to anticipate and successfully adapt to the needs of a rapidly changing world.

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FROM THE DESK OF THE TASK FORCE CHAIR

Designing a Strong Leadership Pipeline

GOVERNANCE. Why is it important? And what does it mean for the future of APA?

Governance in the world of associations is a complex and nuanced area of work. It impacts all areas of the organization—from who serves in positions of leadership, to financial policies—yet is hardly top of mind for most members.

So, what is it? According to the Center for Association Leadership, “Good governance provides the vision and direction to ensure that an association is on the right path.” In practical terms, governance is the combination of structure, process, and culture that allows APA leaders to set the direction of the organization, oversee its operations, and establish expectations for behavior.

The responsibility of good governance lies with volunteer leaders who are committed to APA’s core values and mission, trust the work of the association toward strategic goals, and are willing to sustain commitments to those priorities over time. APA’s volunteer leaders have the ability—and responsibility—to make critical, strategic decisions that transform the organization’s impact on the planning profession.

A new approach to leadership

In 2022, APA began studying the strengths and weaknesses of its governance system. Working with a task force of experienced leaders and outside consultants, we solicited commentary from volunteer leaders at all levels of APA. Many expressed resource pressures, such as not having enough volunteers or time to get things done. Others feel unprepared for leadership and want more support. Some worry that current structures and policies pose barriers to talented potential leaders. Using this input, the task force submitted a knowledge-based governance paper to the APA Board outlining member needs,



‘By this fall, the task force will recommend long-term changes that will ensure APA has a balanced, diverse core of leaders who are well-supported in their efforts to make an impact on planning.’

—KURT E.
CHRISTIENSEN,
FAICP

research-based best practices for structuring leadership roles, and options for evolving APA’s approach for identifying, recruiting, developing, and evaluating leaders. As a result, the Board approved a project to design a strong leadership pipeline, which is underway.

In March, APA launched the 2023 Board election cycle, with improvements to the recruitment and selection process. We’re working to make the election process even more transparent and consistent. More importantly, we’re being very specific about the kinds of Board

candidates we need so potential leaders understand the expectations and the Nominating Committee has clear criteria for evaluating nominees.

Specifically, APA has outlined desired competencies and demographic factors we’re seeking for a balanced Board. We’ve analyzed the Board’s current composition, so we know where we have opportunities to add new skill sets and perspectives, and the APA Nominating Committee will use new tools to objectively assess nominees against those needs. By this fall, the task force will deliver its recommendations to the Board for long-term changes that will ensure APA has a balanced, diverse core of leaders who are well-supported in their efforts to make an impact on planning.

As a former APA president and longtime volunteer leader, I’m deeply committed to ensuring this intentional approach to designing a strong pipeline of leaders takes our association—and the profession—into the future.

Do you want to impact the future of leadership and governance at APA? Anyone interested in this work is welcome to submit questions and feedback to getinvolved@planning.org.

Kurt E. Christiansen, FAICP, is a past APA president who chairs the APA Foundation Board of Trustees and the APA Task Force to Design a Strong Leadership Pipeline.

Oasis Fresh Market is the kind of neighborhood-level investment that the Tulsa Economic Development Corporation envisions as its future. Beyond groceries, the locale offers a community hub offering credit counseling, rental assistance, and mental health services.

COURTESY OASIS FRESH MARKET



INTERSECTIONS

WHERE PLANNING AND THE WORLD MEET

Economic Development | Transportation |
People Behind the Plans | Et cetera

ECONOMIC DEVELOPMENT

They Built an Oasis in a Food Desert

Tulsa Economic Development Corporation and partners leveraged federal grant dollars and made community and equity the core of a new grocery store. By Gary Hamer, AICP

FOR 12 YEARS, residents of a northside neighborhood of Tulsa, Oklahoma, had little access to healthy food.

In 2009, an Albertson's grocery store that had been open less than two years announced its closure. The next nearest grocery store was three miles away, and community members say it lacked the quality and selection found in other parts of town.

Then, in 2021, an oasis in north Tulsa's food desert appeared. It took the form of a community-driven, full-service grocery store: Oasis Fresh Market opened in May that year and was led by local nonprofit Tulsa Economic Development Corporation (TEDC) and Black entrepreneur Aaron Johnson.

Communities across the country are searching for solutions to the epidemic of food deserts and declining access to fresh food. Inflation and the effects of the pandemic have magnified and compounded the issue, and in 2021 nearly 33.8 million people lived in food-insecure

households, according to the U.S. Department of Agriculture.

Like many communities with food deserts nationally, north Tulsa's residents are predominately Black with median incomes that are 36 percent less than the residents of the city as a whole. Poverty rates there approach 50 percent, and deaths from heart disease and diabetes are 30 percent higher, according to the Tulsa County Health Status Report.

Bringing quality food access and better food security to north Tulsa wasn't easy, and community leaders were well aware of previous attempts that had failed. But "TEDC and its partners layered and leveraged federal grant dollars while keeping community, equity, and inclusion at the core of its new grocery store," says Rose Washington-Jones, TEDC's CEO. So far, the benefits go far beyond food access.

Layering capital

The lead agency in the Oasis project was TEDC, a U.S.



INTERSECTIONS

Economic Development Transportation

People Behind the Plans
Et cetera

Treasury–designated Community Development Financial Institution. The agency was able to attract a broad group of community leaders and funders that in turn assembled a strong capital stack to finance construction.

The \$1.5 million Community Development Block Grant (CDBG) to the organization catalyzed additional investment, ultimately upping the funding to nearly \$5.5 million. Local foundations and philanthropic donors were more inclined to invest their dollars once they understood the city's commitments to the store and the community's willpower to advocate for such an important need, Washington-Jones adds, noting that the emphasis on health impacts and equity considerations in presentations to funders also proved influential.

The store's location added another opportunity to build on investment. The new Oasis Fresh Market was built on land TEDC already owned and had acquired as part of a CDBG-funded shopping center opened in 2015. (The site's location on a bus rapid transit line also maximizes accessibility.)

Two underlying planning documents prioritized these investments: the city's Capital Improvements Plan and the Housing and Urban Development Consolidated Plan. (And as the planner who managed both plans for eight years, I firmly believe that planners should be engaged in the development of these plans to ensure all community needs are represented.)



BUILDING A FUNDING PACKAGE

The team leveraged federal and local funding, as well as donations, to build a strong capital stack. The store is in a shopping center built using Community Development Block Grants (CDBG).

SOURCE	AMOUNT
CDBG Grant	\$1,500,000
TEDC Equity Investment	\$1,941,000
Tax Increment Financing District	\$986,000
Foundation and Philanthropic Contributions	\$1,025,000
Total	\$5,452,000

SOURCE: PARTNERTULSA

Signage and large-scale photos reflect the history of the neighborhood once known as Black Wall Street, home to numerous Black businesses and residents, including the Mann brothers' successful grocery. The neighborhood was burned to the ground by a white mob in the 1921 Tulsa race massacre.

The organizations that now make up PartnerTulsa were key players. Before the city created PartnerTulsa in July 2021, the Mayor's Office of Economic Development, Tulsa Industrial Authority, Tulsa Parking Authority, and the Economic Development Commission each had a strong record of attracting and delivering large economic development projects that contributed significant tax dollars and created hundreds of jobs. The reorganization into PartnerTulsa eliminates overlapping roles and focuses the city's mission of advancing equity.

Now, the organization envisions leveraging its large-scale investments to create recurring revenue streams to reinvest in

underserved neighborhoods. Executive Director Kian Kamas sees "the investments made as part of Oasis Fresh Market as an example of the place-based, neighborhood-level investment the agency hopes to foster across Tulsa."

More than food

The final necessary partner was someone to operate the store, and TEDC attracted Johnson, a community-minded, passionate Black entrepreneur. He and TEDC then worked with community stakeholders to envision all that the new development could be, taking it beyond just a place to buy groceries.

Although providing fresh food to the 30,000 residents in the service area and improving health outcomes were key goals, Johnson's vision centers on Oasis Fresh Market being a community hub. The tandem nonprofit The Oasis Projects provides wraparound services to residents and uses the store's 1,000-square-foot community room to provide credit counseling, rental assistance, and mental health services programming.

Lessons and outcomes

TEDC put equity, inclusion, and the needs of the community at the core of the Oasis project, using a multipronged strategy to produce meaningful outcomes, including 20 new jobs for area residents. Nabholz, the general construction contractor, committed to using Minority Business Enterprises (MBE) in the awarding of subcontracts and coordinated with the Black Wall Street Chamber of Commerce

to identify potential Black-owned subcontractors. It also connected small and large contractors to foster partnerships and broke up bid packages into smaller units to allow for small contractor participation.

Those efforts led to the inclusion of 13 MBE subcontracts worth \$465,000, representing 14.2 percent of the total subcontracts available for suppliers and professional trades. TEDC strengthened this strategy by providing patient capital through microloans to MBE subcontractors to purchase materials, eliminating a major barrier to participation.

Oasis Fresh Market also maximizes customers' purchasing power by layering the federal Supplemental Nutrition Assistance Program (SNAP) with state programs such as Double Up, which matches fresh vegetable purchases dollar-for-dollar. The Oasis Projects goes one step further, with a donation-funded program that covers the "SNAP gap"—the gap between a resident's SNAP benefits and the actual cost of a basket of groceries.

Partners say that the north Tulsa Oasis project could be looked to as a replicable model for other communities seeking a road map to creating a community-centered grocery store.

"This is the blueprint for success in underserved communities," says store owner and operator Johnson.

Gary Hamer, AICP, is PartnerTulsa's senior performance strategy analyst. He also serves as a commissioner on the state of Oklahoma's Long-Range Capital Planning Commission.



TRANSPORTATION

A Solution to Saving Lives May Hit a Full Stop from Drivers

To slow down traffic, planners consider curbing right on red. By Erika Bolstad

FOR NEARLY five decades, drivers in the United States have taken for granted a privilege unknown in much of the rest of the world: Arrive at a red light, stop, and if the intersection is clear, turn right.

But as states have seen traffic fatalities and pedestrian deaths climb in recent years, many jurisdictions are reconsidering right turns on red. Now, safety advocates are urging state and municipal transportation planners to reconsider a custom so deeply ingrained that few drivers remember a time when it wasn't allowed.

"It's an easy change to make that should be made in more

According to the Governors Highway Safety Association, nearly 7,500 pedestrians were struck and killed by drivers in 2021, the largest number in four decades.

places," said Mike McGinn, a former Seattle mayor and executive director of America Walks, an advocacy organization for walkable communities.

Washington, D.C., will end most right-on-red turns by 2025. Already, the state of Hawaii has prohibited them on a tourist-dense stretch of road in Honolulu. Near the University of Michigan in Ann Arbor, the city last fall banned right turns at 50 signalized intersections in its downtown core.

And Washington state this year considered but ultimately never held a vote on a bill that would have banned right turns on red near schools, day care centers, parks, and other zones with heavy foot traffic—or where older adults, children, and people with disabilities are likely to need more time to cross streets safely.

The practice is such a habit for most drivers that they don't even stop or look to the right as

INTERSECTIONS

Economic Development

Transportation

People Behind the Plans

Et cetera

they approach signaled intersections, McGinn said. Pedestrians face particular risk at intersections where drivers creep into the crosswalk.

Yet barriers remain. It's difficult to change driving habits, the restrictions may not be helpful in rural areas or at some quieter intersections, new signage is expensive, and slowing traffic could increase emissions, fuel consumption, and travel time for drivers.

An analysis released last month by the Governors Highway Safety Association found that deaths of people killed by cars while walking rose an estimated

18 percent between 2019 and 2022. An estimated 7,485 pedestrians were struck and killed by drivers in 2021. Drivers were more likely to drive impaired or distracted.

During the early days of the pandemic, drivers sped up with fewer cars on the road, but they never slowed down, a study by the Insurance Institute for Highway Safety found.

In Washington state, the ban on right turns was among a package of safety bills under consideration this year to address the rise in traffic fatalities. Even when a collision doesn't kill pedestrians, the trauma of injury can linger, Vicky Clarke of Washington Bikes, told lawmakers at a

hearing of the House Transportation Committee. The proposed legislation drew skepticism from lawmakers who represent less congested or rural areas. The bill is unlikely to get a floor vote this legislative session. Nonetheless, cities within Washington can still change individual intersections.

In Seattle, the city's Department of Transportation last year began activating traffic enforcement cameras at eight congested locations. The cameras automatically send tickets to drivers who impede cross traffic and pedestrians.

Erika Bolstad is a staff writer for Stateline. Stateline is part of States Newsroom, a national nonprofit news organization focused on state policy.



The Viva Civic advertisement features a central logo with the text "viva civic" in a teal, lowercase font. Below the logo, it reads "The Best Online Software Solutions for permitting and management of Planning Building Engineering & more". To the left of the central text are three overlapping circles: an orange one saying "Save Time and Money", a blue one saying "Improve Efficiency and Productivity", and another orange one saying "Enhance Collaboration and Communication". To the right is a large orange circle with "The best Citizen Portal". Below the central text, it says "Pay as you Go" and then presents two pricing options: "option 1 Subscription Pricing per user/month" and "option 2 Convenience fee Per permit paid by customers". At the bottom left is a circular icon for "Cloud Hosted SaaS Solutions". At the bottom right is an image of a laptop and two smartphones displaying the Viva Civic software interface with various charts and data. A large orange button at the bottom contains the text "Visit www.vivacivic.com or call 805-450-6605 to learn more and get started".

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'My City Is Actually Just a Playground Bully'

GROWING UP IN this body, there were lots of stories written over me or about me as I moved through the world, especially as a child in a wheelchair," says Kansas City-based Rebekah Taussig, author of *Sitting Pretty: The View From My Ordinary, Resilient, Disabled Body*.

A teacher, advocate, and storyteller, she's turned to Instagram to rewrite those stories. With more than 60,000 followers, Taussig uses @sitting_pretty to share her experiences navigating a built environment that was not created to include people with disabilities—despite the fact that one in four people will experience a disability in their lifetime.

Ahead of her closing keynote speech at the 2023 National Planning Conference, Taussig joined Meghan Stromberg, APA's editor in chief, for a special episode of *People Behind the Plans* to discuss how storytelling and planning can drive that cultural shift to create communities for every body.

This interview has been edited for length and clarity. Hear the whole conversation at planning.org/podcast or wherever you get your podcasts.

STROMBERG: You write about how "ableism" pervades society. How do we start to dismantle these attitudes and systems?

TAUSSIG: So much of the disability rights movement has focused on legislation and infrastructure, which is vital and has changed the world for the better. But I think that what has become apparent is that legislation can only go so far without a deep cultural shift. We've had the Americans with Disabilities Act for almost 33 years now, and there's still so much resistance from people or a lack of understanding about why these things are important. I think that shift has to do with the stories that we tell about disability. Stories about disability paint it as this



fringe, exceptional, totally separate human experience or that including disability is an act of benevolence.

In the past five or 10 years, there's been such a shift, especially in social media, where people are able to represent their own experiences and tell their own stories. The steps are very small, but I'm hopeful by what I see. I think that when the cultural narrative can shift, that's when we get into the next frontier of [implementing] legislation and regulations that we have in place and imagining an even more inclusive world that holds all of us in the bodies that we live in.

HEAR THE FULL STORY

Want to learn more? Scan the QR code below or go to planning.org/podcasts for Rebekah Taussig's episode of *People Behind the Plans*, APA's podcast series about urban designers.



STROMBERG: Any thoughts on how funding from the Infrastructure Investment and Jobs Act, which includes \$1.75 billion for transit accessibility, should be spent?

TAUSSIG: Part of it is just getting up to speed with the regulations that are already in place, right? New York City is infamously inaccessible. I think about 25 percent of their subway stations are accessible right now. How does a person even use that public transportation at all when most of the stations are inaccessible? I think that's the case in lots of cities.

I think it would be so smart to create these spaces that hold on to all of us. Bringing in consultants that embody all kinds of different disabilities to speak to their lived experience. I think that would lead to some of the best possible designs that we could have for all of us.

STROMBERG: What should planners know about how you experience the world?

TAUSSIG: Part of my experience comes down to feeling like a disruption—like there's this whole mechanism that's in place, and I arrive and then suddenly

that whole system is thrown into chaos. It's also the way the people in that space respond.

I've moved four times in my adulthood, and every single time, I have run into this feeling [that] there is no place for me to live in this city. I find places that are affordable but profoundly inaccessible, places that are accessible but way too expensive, or public housing that should be accessible and affordable but literally has waiting lists years long. I have felt like my city is actually just a playground bully, flipping me off. And I don't actually believe that anyone involved in planning meant to do that, but the cumulative effect is this feeling of invisibility.

STROMBERG: How do others react when they see how difficult their spaces are to navigate?

TAUSSIG: A few years ago, I was looking for a new hairdresser. I spent hours on Google Images and Google Earth, looking at spaces and asking questions like, where would I park? And most websites,

especially a few years ago, never mentioned accessibility, so I am deducing all of that on my own.

So, I go to this new place, and there were these two giant, narrow doors. I open the first one, and the second one is locked. So, I'm just sticking my head in, trying to get the attention of someone to help me.

This woman comes over and opens a second door for me, and I'm frantic and apologizing profusely. And her response to me was something like, "It's OK, it's OK. You're fine." In my mind, I was like, "I know I'm fine. This building is inaccessible." There was no acknowledgment from her, no "I am so sorry we have these doors that meant you couldn't get into this building."

That tiny moment is an example of the system itself being inaccessible and how the people within that system see that experience. To me, both of those layers are really important. My experience would have been transformed in that space had the response been different.

Meghan Stromberg is APA's editor in chief.

Evidence Matters

FROM HUD'S OFFICE OF POLICY DEVELOPMENT AND RESEARCH

Evidence Matters is PD&R's quarterly publication that demonstrates HUD's commitment to evidence-based policymaking. Each issue focuses on a key theme and highlights policy-relevant research that connects policymakers at all levels, as well as researchers, advocates, and industry members, with clear, accessible, and timely information.

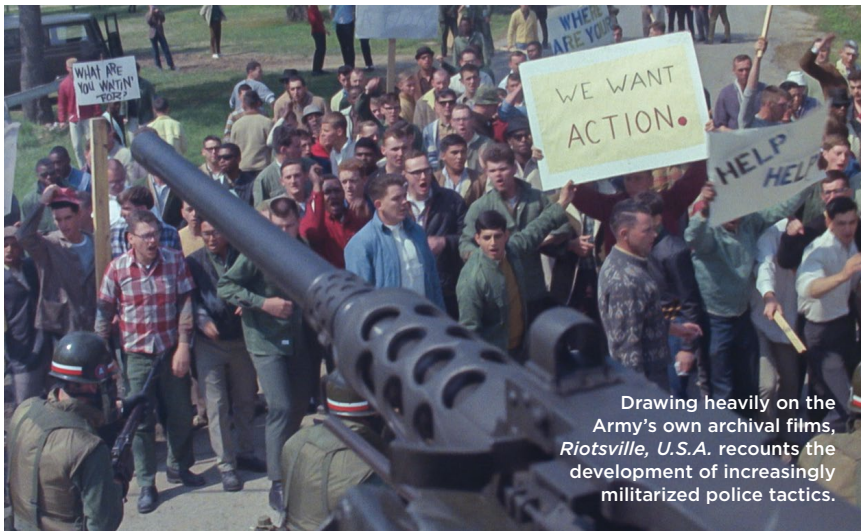


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Drawing heavily on the Army's own archival films, *Riotville, U.S.A.* recounts the development of increasingly militarized police tactics.

NOW STREAMING

The Roots of Militarized Urban Policing

A new documentary from Sierra Pettengill investigates one of the Civil Rights era's lesser-known stories. By Ezra Haber Glenn, AICP

EMERGING FROM a legacy of racism, inequality, and nonviolent organizing in the late 1950s, the American Civil Rights Movement burst from schools, vigils, and lunch counters in the 1960s. Intense outbursts of civil unrest shook the nation—whether labeled “riots,” “rebellions,” or “revolutions”—in over 100 cities between 1965 and 1967.

In the decades that followed, documentaries from the award-winning PBS series *Eyes on the Prize* to the gut-wrenching *Revolution '67*, to more recent films like *The Many Saints of Newark* and *Judas and the Black Messiah* have explored this turbulent era as a lens for understanding the Civil Rights Movement and the urban planning reforms that grew out of it.

But one fascinating and upsetting part of this story has rarely been told—an oversight corrected by *Riotville, U.S.A.*, an innovative new documentary directed by Sierra Pettengill. As more and more cities were witnessing intense unrest, and as planners and academics conducted studies and drafted policy reforms, the U.S. Army was busy constructing temporary simulated “downtowns” to stage mock demonstrations and conduct training exercises in urban policing.

Drawing heavily on the Army's own silent archival films, the documentary recounts the development of increasingly militarized police tactics, practiced in these so-called “Riotvilles,” then promoted in urban areas across the country.

Weaving in enough context and history concerning



Riotville, U.S.A. was an official selection at Sundance in 2022 and is available on Hulu and can be purchased or rented on other streaming platforms.

discrimination, segregation, urban renewal, and the roots of “the urban problem,” Pettengill also connects these militarized strategies to the growing war in Vietnam.

At times, the film is perhaps too eager to stretch out the story. A tighter narrative could focus the story without losing much. Equally important would be a contrast of the military's “Riotvilles” with federal approaches advocated by urban planners at the time, such as Lyndon B. Johnson's Model Cities Program. While the “law and order” camp practiced control-oriented policing in fake cities, partnerships among local government, antipoverty organizations, and resident coalitions worked on the ground to support and rebuild real ones.

Regardless of these shortcomings, the film offers an important contribution to expanding our understanding of this pivotal moment in urban history. Actually seeing these simulated “downtowns”—more façade than fact, created by policing institutions drifting increasingly out of touch with the realities of urban America—viewers are encouraged to reflect on the cultural, economic, and even moral aspects of the growing divide between inner-city and outer-suburb, a fragmentation that continues to shape our metropolitan regions, policies, and politics today.

Ezra Haber Glenn, AICP, is Planning's regular film reviewer. He teaches at MIT's Department of Urban Studies & Planning and writes about cities and film. Follow him at urbanfilm.org.

Autonomous vehicles (AVs) that deliver groceries and medicines could create jobs—or contribute to job loss. Fair labor practices could prove to be an important consideration for AV regulators.

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HOW-TO

10 PRINCIPLES TO PREPARE YOUR STREETS FOR AVS

San Francisco's autonomous vehicle framework considers the questions planners anywhere might have.

By Jonathan Barnett, FAICP, and Zhongjie Lin, PhD



IN APRIL 2022, San Francisco police pulled over a car for driving at night without headlights. But when the officers went to talk to the driver, they discovered the car was empty.

The driverless vehicle belonged to Cruise, a General Motors subsidiary, which is one of seven companies permitted by the state of California to test its autonomous vehicles (AVs) on streets without a driver. (In the U.S., 29 states currently permit AV testing and operation.)

While the officers were considering what to do, the car started up, crossed an intersection, and came to rest on the other side. The car had been programmed to recognize when it had been stopped by police, but it had also been programmed to only remain stopped at places that met specific criteria. Ultimately, the officers left without issuing a ticket because citations for a moving violation are given to a driver rather than a vehicle.

This situation points to one of several regulatory gaps in the

AV revolution and raises a lot of questions. But planners can pull ahead, by proactively planning for autonomous mobility. That is the approach San Francisco is taking—and it has developed a framework that could be useful to planners elsewhere.

Full speed ahead

Introducing driverless vehicles as part of the traffic mix raises many questions: How safe are they for passengers, as well as for others sharing the streets? What regulations are needed to accommodate their operations? Will they eliminate jobs and pose a threat to the economy and vitality of communities? How might street designs need to change?

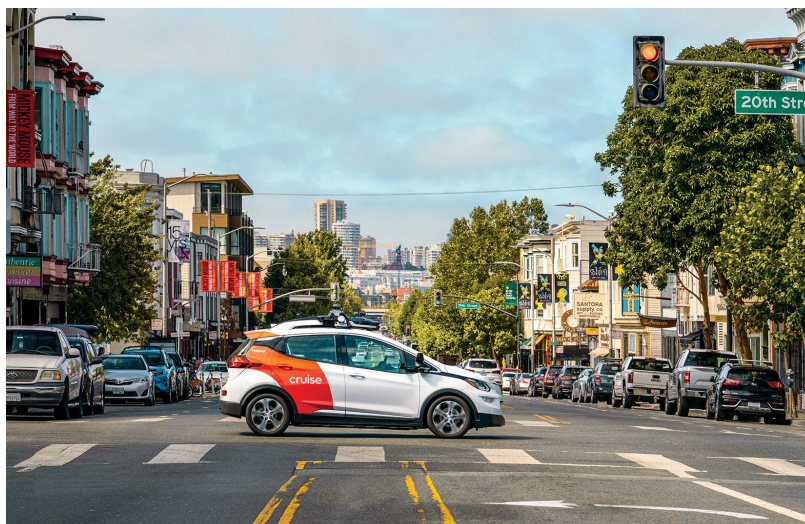
San Francisco's 10 Guiding Principles for Emerging Mobility (bit.ly/3nrpL0V) are useful for framing the questions that planners working for local governments will need to consider before allowing the full operation of driverless vehicles—although whether states

will maintain preemptive control over permitting is another question. If that happens, these principles may also apply to state regulators.

1 EFFECTIVELY COLLABORATE. The need for collaboration among AV manufacturers, operators, and governments is perhaps the most important of the 10 principles. The National Association of City Transportation Officials has published a *Blueprint for Autonomous Urbanism*, which details the kinds of changes to urban streets that could also feed back into the design of the AV driving systems themselves. But these changes would take years to implement and would require all parties to have talked to each other about the planning and design of streets and land uses.

2 HELP REDUCE TRAFFIC DEATHS. This second objective raises the central question: Are completely autonomous vehicles safer than vehicles with drivers? Many cities are implementing Vision Zero policies that seek to eliminate fatalities and injuries caused by moving vehicles. Manufacturers claim that driverless vehicles will make fewer mistakes than drivers, but is any level of failure acceptable? If the technology is not 100 percent reliable, governments might require safety drivers, removing one of AVs' main economic benefits.

3 RELATE TO PUBLIC TRANSIT. Will lower labor costs for driverless car services take riders away from public transit? It could happen, but governments could counter with a congestion fee on ride services for long trips in downtown and inner suburban areas. Driverless shuttle buses between transit stops and frequent places of departure or destination will reinforce existing transit and could be exempt if there is a congestion fee.



Police pulled over a Cruise AV on a San Francisco street in 2022. The car pulled over, but with no driver at the wheel to ticket, the stumped officers moved on.

4 MANAGE TRAFFIC CONGESTION. Adding AVs to the traffic mix will also add to traffic problems. Take transportation network companies (TNCs) like Uber and Lyft. Without needing to pay a driver, more cars could be in circulation, some of them just driving around looking for customers in between trips.

Further, many small, driverless delivery vehicles will add to the congestion problem when they park curbside, and AVs on sidewalks could enter the mix when they cross streets. Local governments may have to consider limiting delivery hours in congested areas, limiting AVs to streets and lanes designed to accept them, and instituting congestion pricing.

5 HELP REDUCE EMISSIONS. Driverless vehicles are almost always electrically powered, which helps reduce emissions locally. But that isn't the whole story. For decades to come, traditional gas- and diesel-powered vehicles with drivers will continue to occupy streets, idle, and create emissions. Changes to street

configurations, made collaboratively by governments and vehicle operators, may be required.

6 PROVIDE EQUITABLE ACCESS. AVs could expand mobility for people unable to drive a conventional car. That could open up more equitable access to destinations, if AV tech really does make trips and deliveries less expensive, particularly in suburban and rural locations with little public transit.

AVs can deliver groceries and medicines, and driverless TNCs or on-demand shuttle buses can improve individual mobility, as well. However, acceptance depends on making these services affordable and making vehicles that accommodate a variety of users.

7 FOLLOW FAIR LABOR PRACTICES. Driverless technology has the potential to eliminate a lot of jobs. That isn't surprising since reducing labor costs is a major economic benefit.

But, regulations might still require a safety driver during a transition period or in bad weather, and there will still be jobs monitoring the vehicles remotely

for emergencies or system failures. Servicing and repairing vehicles will also be necessary. New service jobs could be generated, but there should be advance planning to reduce negative impacts on the job market.

8 MANAGE INFRASTRUCTURE IMPACTS. Dealing with emergencies and unforeseen circumstances, like street repairs or emergency vehicles, will require collaboration between driverless services and transportation agencies on things like signal systems. Basic principles—like pedestrians having the right of way and not obstructing transit routes—require coordination, digital mapping, and feedback systems.

9 SHARE RELEVANT DATA. Companies that make and operate AVs will have data that could be used for better planning and design decisions. These companies are motivated to withhold data from competitors, but data related to issues of safety, system security, management of resources, and reduction of carbon emissions should be shared with public agencies. The question is: How will it be managed?

10 BE COMPLETELY ACCESSIBLE. Driverless cars and shuttle buses should be designed for accessibility for all, including people with disabilities, and the digital infrastructure to deploy them can let passengers make requests according to their needs. That may require a special design and drivers for a percentage of the vehicles and a system to alleviate excessive wait times.

Jonathan Barnett, FAICP, recently cowrote Managing the Climate Crisis: Designing and Building for Floods, Heat, Drought, and Wildfire, published by Island Press. Zhongjie Lin, PhD, is head of the urban design concentration in the Department of City and Regional Planning at the University of Pennsylvania. For more AV resources, visit APA's Autonomous Vehicles KnowledgeBase Collection at bit.ly/3pCjxft.

ZONING

REFORMS AND HIGHER DENSITY SPUR AFFORDABLE HOUSING

In a Mississippi college town, a plan to develop much-needed workforce housing also leads to a bustling business district. *By Patrick Sisson*



Zoning reform efforts in Oxford, Mississippi, have brought more foot traffic to the downtown core, revitalizing local businesses.

ECONOMIC DYNAMISM, the lifeblood of cities and small towns, comes in many forms: workplace mobility enabling talent to thrive and find new opportunities, investments in public infrastructure and education, the incubation of small businesses and entrepreneurs. In most cases, this starts with the space or places to build retail and housing—and experiment.

Zoning reform, which can unlock new opportunities and new spaces to build affordable homes and small businesses, can be a key part of this shift.

In Oxford, Mississippi—a bucolic college town with a population and workforce that ebbs and flows with the school year and Southeastern

Conference football games—zoning changes and a new comprehensive plan focused on increasing housing production have brought more activity and shoppers to downtown stores.

These efforts started in 2017, with the city leveraging a new, increased bedroom-per-acre measure to help encourage more density; an incentive ordinance for affordable housing was also passed. These efforts spurred increased production of much-needed workforce housing, including four Section 42 housing developments near trails, greenspaces, grocery, and other retail.

“We’re starting to see more density that’s applied in new developments that provide more options and opportunities for not only our student population but also older populations,” says Benjamin Requet, AICP, Oxford’s director of planning. “Even young families are moving to our community for the good schools, the transportation options, and just the wonderful quality of life that our community is able to offer.”

For Requet, the reforms and expanded development opportunities aren’t just about increasing the housing supply or adding a few new businesses. It’s about creating and shaping a more exciting, vibrant, and welcoming community.

“What’s at stake is the lack of options and type of communities that we desire in places like Oxford, Mississippi,” Requet says.

Patrick Sisson is a Los Angeles-based writer and reporter focused on the tech, trends, and policies that shape cities.

ENGAGEMENT

4 EXTENDED REALITY TOOLS TO CONNECT VISION WITH ACTION

APA's Technology Division shares immersive experience applications for planners to upskill. *By Sarah Bassett; Andrew Buck, AICP; and Nicholas Pilarski*



AS EXPERTS IN SYSTEMS ANALYSIS, planners play an essential role in helping society navigate and plan for uncertain futures. Extended reality (XR) can be used to better connect a planning vision with action, using immersive experiences to merge physical and virtual (hypothetical) environments in virtual reality (VR), augmented reality (AR), or mixed reality (MR).

Learning about and using XR technologies can support intuitive forms of decision-making and can upskill and improve industry competitiveness of urban planners, helping ensure that planners are not outpaced by workers in technology fields.

Read on to explore emerging XR tools and databases that can help boost public buy-in, convey project cost benefits, increase representation, and keep production costs in-house, while also connecting with communities.



INCITU

AUGMENTED REALITY

The AR platform inCitu is designed to support planners in the analysis and visualization of urban data by representing scale models of buildings, affordable housing, mixed-use developments, parks, bridges, and the like. After planners digitize the analysis of proposed development decisions, this mobile phone app builds geofenced, 3-D prototypes in an AR environment of existing conditions (built from private and public datasets). Using a mobile app, the public can then scan a QR code on a sign at street-level or get a notification when they are in a particular place, allowing

them to gain project familiarity or become part of the planning process in an immersive way. Available in iOS and on Snapchat, with Android forthcoming, the AR platform is intuitive to navigate and is designed for ease of use.

COST: ● (public data layer is free)

CODING SKILLS REQUIRED: ●

RESOURCE FORMATS: Image, video, mobile

COMPUTER SPECS NEEDED: Low



ARKIO

VIRTUAL REALITY

Arkio is a cloud-based, collaborative spatial-design software that allows planners, designers, and stakeholders to create 3-D models of buildings and neighborhoods over VR and other devices. Up

to 30 users can collaborate in real-time, using an intuitive interface for creating and modifying designs with simple gestures and hand movements. Planners use it to iterate designs, modify design alternatives, and engage in virtual charrettes and design reviews. It can also help users explore conceptual design options and evaluate design performance (such as energy efficiency, daylighting, and acoustics). While this form of VR collaboration is relatively new, the platform is one of the easier toolsets to use.

COST: ● (public data layer is free)

CODING SKILLS REQUIRED: ●

RESOURCE FORMATS: VR, mobile, computer

COMPUTER SPECS NEEDED: Medium to high



UNREAL 5

IMMERSIVE REALITY

Unreal 5 from Epic Games is an XR engine that offers an adaptive and interactive platform for planners to create immersive environments beyond traditional methods of visualization, from counterterrorism measures to immersive experiences that gamify community involvement during the planning process. With its cross-platform compatibility, planning and design firms can use it to explore a multitude of simulations

COST: ● FREE ● PAID **CODING SKILLS REQUIRED:** ● YES ● NO

relevant to communities. Linking to Esri's CityEngine allows for "procedural design" in CityEngine and "direct pipeline" use in Unreal for development of high-quality and real-time visualizations and integration of gamified elements.

COST: ● (some projects may require fee)

CODING SKILLS REQUIRED: ●

RESOURCE FORMATS: Video, mobile, VR, AR, MR, web

COMPUTER SPECS NEEDED: High



TWINMOTION

VIRTUAL REALITY

Twinmotion is an easy-to-use, real-time 3-D visualization and rendering software developed by Epic Games using the Unreal Engine. A great entry point for users who want to begin using game engine technology, it allows planners and designers to transform 3-D models into high-quality immersive visualizations. Users can import a variety of 3-D models from software like SketchUp, CityEngine, Revit, and Rhino, then modify certain aspects (materials, lighting, vegetation, vehicles, and people) to create dynamic scenes for walk-throughs and fly-throughs, interactive presentations, and VR experiences.

COST: ● (after free trial)

CODING SKILLS REQUIRED: ●

RESOURCE FORMATS: Image, video, mobile, VR, AR, web

COMPUTER SPECS NEEDED: Medium to high

Sarah Bassett, the secretary of APA's Technology Division, is the director of urbanism at Peoples Culture, a professor, and the co-director of the Resilient Visions CoLab at Arizona State University (ASU). Andrew Buck, AICP, is a senior urban planner and technologist at VHB. Nicholas Pilarski is an associate professor of arts, media, and engineering at ASU and co-directs its Resilient Visions CoLab.



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A two-decade drought has dropped water levels so severely in the Colorado River system that a sunken boat sticks out of the water at the Lake Mead National Recreation Area near Boulder City, Nevada. In May, Arizona, California, and Nevada reached an agreement to cut their combined water use by about 13 percent by the end of 2026.

SCOTT LONDON/ALAMY



Land-Use
Policy Could
Help Solve
the American
West's

WATER CRISIS

As the twin pressures of water shortages and massive growth run the Colorado River dry, planners explore innovative solutions.

By PATRICK SISSON

THE COLORADO RIVER HAS GONE BY MANY NAMES, with sobriquets as colorful as its muddy red hue. Navajo call it Nts'ósíkooh, meaning "Slim Water Canyon." Spanish explorers told of the Rio del Tizon, which translates to "River of Embers" or "Firebrand River." Some 19th-century Americans dubbed it the Grand River. Today, the Colorado is best known as a waterway

under threat. In 2021, the Department of the Interior declared a shortage on the river, dried up by drought, overuse, and the persistent ravages of climate change.

“We need to understand that the water budget of the West is changing beneath our feet rapidly,” Park Williams, a climate scientist at UCLA, told the *Los Angeles Times* in 2022. “We need to be prepared for a much drier future, and to not rely so much on hope that when it gets wet again, we can just go back to business-as-usual water management.”

The river’s average annual flow of 14.6 million acre-feet of

and infrastructure planning at CDM Smith, and chair of APA’s Water Task Force. “Have planners always been trained in water management issues? Not really. That’s a skill set that has evolved over the past 20 years.”

As the twin pressures of growth and short-ages continue across the American West, planning innovations are creating new models for water management, resource-first development, and collaboration free of silos.

‘Have planners always been trained in water management issues? Not really. That’s a skill set that has evolved over the past 20 years.’—Bill Cesanek, AICP, CDM Smith

water (a single acre-foot is the equivalent of a football field-sized pool filled to a depth of one foot) seems significant until you consider how it’s divvied up. Roughly 70 percent irrigates crops, especially alfalfa and animal feedstock, while the rest is split between tribal nations, some of the fastest-growing cities and states in the U.S., and two of Mexico’s northern states. That is water (and electricity) for about 40 million people.

Today’s increasingly dire supply-and-demand crisis, exacerbated by the worst megadrought in a millennia, spawns explosive wildfires, stressed bird populations, dried-out reservoirs, and flows so low that the river nearly hit deadpool (the level at which reservoirs become so parched that the Colorado effectively stops). Residents of the region already see big disruptions to daily life: the Rio Verde Foothills, a community of around 2,000 homes north of Scottsdale, Arizona, faced water shutoffs in February.

Intervention is needed, and fast. With population growth projections what they are—more than a million new residents are expected in Arizona alone by 2030—federal officials have already hinted that allotment of the Colorado, set through a 1922 compact known as the Law of the River, may change drastically, pushing states and cities to make massive leaps in water conservation and efficiencies.

“Planners, because they’re involved in making decisions about the built environment, are in a key place right now,” says Bill Cesanek, AICP, a planner and vice president for urban

Water policy defined by drought

In the lower Colorado River basin—California, Arizona, and Nevada—drought is a fact of life reinforced with each subsequent year. In May, the U.S. Department of the Interior announced a deal among the three states, where each would agree to cut river water use by 13 percent in exchange for \$1.2 billion in federal funding for farmers and tribes, as well as for conservation programs. And in June, Arizona restricted building permits in the Phoenix metro area because of low groundwater supplies.

The reality of severe drought has reshaped water policy, says Ellen Hanak, vice president and director of the Water Policy Center at the Public Policy Institute of California. California’s severe shortages in the 1970s introduced refined demand management and drought contingency plans, while the drought from 1986 to 1992 pushed utilities to get more serious about reinforcing water supply and investing in resilience.

Notably, pioneering water regulations at the federal level, like 1977’s Clean Water Act, weren’t in place for much of the nation’s pre-war and mid-century building boom. That means smart water management didn’t factor into

Water is scarce and prices have tripled for residents of the unincorporated Rio Verde Foothills neighborhood. Nearby Scottsdale, Arizona, cut off water delivery to the area in February as part of its drought management plan.



rapid suburban expansion. But the assumption that water would just be available for housing in exurban areas via groundwater and wells has been radically rethought, with many state laws requiring new projects to prove they have a viable water supply before breaking ground. Local water utilities have interconnected to work together during times of drought, and activities that would taint important groundwater sources have been curtailed.

Threaded with this abbreviated history of water management and policy is the siloed approach different agencies and leaders took—and the impediment that created for conservation. Engineers largely saw water as an issue, particularly in terms of flooding, and designed roads, commercial districts, and infrastructure to whisk it away quickly. Now, sustainability leaders see the value in recovering stormwater and designing green space and residential sites to capture and collect.

Despite tremendous growth across the Colorado River basin, the region has largely seen water usage level off thanks to efficiencies. Quick fixes like swapping out old appliances, upgrading plumbing codes, and increasing systemwide water efficiency have mostly been deployed in more populous states, says Amanda Begley, associate project manager at Tree People, a Los Angeles-based environmental advocacy group. In large swaths of the Southwest, all the water that enters the municipal wastewater system is already reclaimed and reused.

Still, water policy defined by decades of drought is proving insufficient. More sophisticated solutions—and profound changes—are needed.

Development considerations

In many ways, water challenges bolster land use already championed by urban planners, especially around density—building more multistory housing requires fewer resources and leaves more waterways and wetlands undisturbed, a valuable piece of water management and quality.

Planners can take best practices around water policy and meld them with land-use goals to retrofit older buildings and neighborhoods and make choices that support smart growth.

A GUIDE TO UPDATING LOCAL REGULA

Building and zoning codes are a powerful way to advance local

Regulations are a foundational part of a planner's toolkit. They heavily influence the way our communities look and function by directing where and how we build.

As sea level rise, stormwater flooding, and other climate impacts become more severe, they also have a vital role to play in adaptation and mitigation. Regulations can not only help eliminate barriers to implementing climate-resilient strategies, but they can also promote inclusion of climate resilience strategies into new projects and retrofits.

In fact, your local code offers multiple opportunities for promoting climate action. Here are three ways to incorporate climate goals into your local regulations.

1. AUDIT YOUR REGULATIONS FOR OPPORTUNITIES TO UPDATE

The first step: decide what your community's goals are for climate adaptation. Do you want to encourage green infrastructure to better manage stormwater? Limit new development in the floodplain? Reduce urban heat island impacts?

Then, conduct a comprehensive audit and consider any edits or additions that would support your goals, introducing new prescriptive language.

Marlborough, Massachusetts, is updating its regulations to include climate resilience; the new recommended language for the city's stormwater regulations, seen below in bold, introduces a prescriptive requirement related to best practices and the use of climate data to inform design:

Ensure adequate long-term operation and maintenance of structural stormwater best management practices **through a required Operations and Maintenance Plan** so that stormwater structures work as designed. **Designs shall consider long-term climate change projections to accommodate increased volume of runoff.**

A few important things to consider are to be careful of adding language that conflicts with other sections of the code, use track changes or a table to capture edits, and consider forming a committee to champion the process. Once the draft update is complete, share your recommended changes with all relevant stakeholders or committees for feedback.

2. START WITH FLEXIBLE DESIGN GUIDANCE—AND INCENTIVES

Your community may be concerned with the enforceability of climate adaptation strategies. In those cases, instead of introducing prescriptive standards, communities can take a gentler approach by expanding site plan review submission requirements.

TIONS FOR CLIMATE RESILIENCE

climate goals. Try these tactics for proven results. BY BELLA PURDY, AICP

Create a climate adaptation design guidance document or checklist to help project proponents incorporate your strategies into their projects.

By offering design guidance, a community can encourage climate adaptation without requiring or creating conflict with the state building or energy codes. Consider incentives for incorporating strategies on the checklist; for example, for large developments, a community could increase floor area ratio or allow an additional unit if a certain number of strategies on the climate resilient checklist are included in the project.

A CLIMATE SUSTAINABILITY CHECKLIST

Chelmsford, Massachusetts, uses flexible requirements to increase resilience, with a specific number of strategies required in each category. For building strategies, developers must pick four from the checklist to incorporate into their designs.

BUILDING SYSTEM	
Please indicate any low-carbon emissions energy strategies or renewable energy strategies that are utilized in the project's site or building design.	
	Sustainable Roof Systems. Check all that apply. ☐ Cool Roof (Roof with high solar reflectance, often white or light-colored material) ☐ Intensive Green Roof ☐ Extensive Green Roof
	Building will have green façade.
	Building will have solar panels.
	Building is PV ready but will not have solar panels at time of initial occupancy.
	Passive cooling is supported through flow-through ventilation design, low E windows, solar shades.
	Passive heating is supported via building orientation, window design and thermal mass.
	Heating uses a low carbon heating or cooling source, such as air source heat pump.

SOURCE: CHELMSFORD, MASSACHUSETTS CLIMATE SUSTAINABILITY CHECKLIST



A new “cool factor” ordinance in Cambridge, Massachusetts, could lead to more green roofs like this one at a mixed-use residential building.

Consider this example (left) from Chelmsford, Massachusetts, a community that created a “Climate Sustainability Checklist.” They encouraged—without requiring—a certain number of strategies based on the size of the project. The town referred to these designations as “tiers.”

3. IMPLEMENT A PERFORMANCE-BASED ZONING ORDINANCE

Performance-based zoning requires a certain performance metric for a project while allowing for flexibility in achieving it. That allows for localized innovation and changes rather than rigid, prescriptive requirements.

Cambridge, Massachusetts, is in the process of adopting a “cool factor” zoning ordinance, which requires new projects to incorporate strategies that reduce the urban heat island effect. The cool factor calculates a weighted score based on site features like mature tree preservation, new tree planting, ground-level vegetation coverage, green roofs, shade structures, and the use of high solar-reflectivity paving materials. Aside from one prerequisite—the use of high-solar-reflectivity roof coverings—property owners are given the flexibility to choose which strategies are most appropriate.

Developing a scoring system can be complicated. Base your metrics on the best available climate vulnerability data and use existing resources where available.

Bella Purdy, AICP, is a climate resiliency specialist and planner with Weston & Sampson and is based in Virginia. She can be reached at purdy.bella@wseinc.com. Read the full version of this article at planning.org/planning.



Orange County, California, relies on extensive water recycling programs, like at this reverse osmosis plant, where wastewater is filtered through membranes before eventually being used to recharge underground aquifers.

Current anxieties over new development in Arizona—such as Buckeye, a Phoenix suburb with 27 master-planned developments in the queue—points to the power planning has to limit unsustainable development. Real estate projects need to verify 100-year water supplies before getting permitted and often rely on overallocated and limited aquifers.

“Planners need to be mindful that any new construction and any new concrete and hardscape is adding to [urban runoff] and stopping the water from being able to soak in the ground, feed our vegetation, and fill out aquifers,” says Tree

Commercial land uses also require extensive consideration. The Phoenix area, where Taiwan Semiconductor Manufacturing Company plans to invest \$40 billion in a new semiconductor plant, offers numerous examples of planning for high-volume water users. According to Sarah Porter, director of the Kyl Center for Water Policy at Arizona State University, highly consumptive plants like these can reclaim roughly 85 percent of the water used. Figuring out the

Planners can take best practices around water policy and meld them with land-use goals to retrofit older neighborhoods and support smart growth.

People’s Begley. “Because it’s somewhat invisible, people aren’t thinking about it until we have a major rain event.”

Encouraging better development practices overcomes natural reluctance on the part of developers. Despite water allocations set by state rules and utilities, planners often interface with developers and issue final approval, giving them room to require landscaping, conservation efforts, and building strategies that can make projects more sustainable. In New Mexico, an in-process megadevelopment called Santolina may resubmit its plans to add water reclamation technology and a vast solar installation to allay consumption concerns its estimated 90,000 residents would bring.

Up north in Westminster, Colorado, planners have even decoupled water use from growth to create a preemptive planning process wherein water data informs land use. Instead of using a simple per-capita water usage metric, the city built custom maps that can help inform the best places for multifamily developments or what the impact of a strip mall might be. Planners can look ahead and demand more infrastructure and conservation features from development proposals—or even scrap them altogether if they would use too many resources.

“We didn’t want public works to determine how the city developed,” Stu Feinglas, Westminster’s recently retired senior water-resources analyst, told CityLab. “What we could do is show how much water we have and ask them to be creative and make their development work with that.”

impact of these projects—and how to blunt that with water reclamation—are key to planning and permitting. Cities like Mesa and Chandler in Arizona have already instituted ordinances that help balance out water usage from new commercial tenants.

Landscaping and conservation

Pushing for new regulations around landscaping, water recycling, and stormwater runoff is a key target for water policy, Begley says. A continued trend toward native plantings, drought-tolerant landscapes, large-scale water reclamation and stormwater projects at parks and green spaces, and even bans on nonfunctional turf (the other NFT) will ensure precious drops aren’t wasted.

Notably, one of the region’s greatest successes comes from an area of excess: Las Vegas, where local planners and the Southern Nevada Water Authority instituted strict programs, rules, and incentives to rip up grass, limit water usage, and ration watering. Today, water use per capita is down 48 percent from 20 years ago.

But across the West, an outgrowth of policy shifts has protective planners and agencies pushing new ideas to cut back on waste and radically

increase efficiency. In Los Angeles, the low-impact development ordinance, passed in 2021, mandates stormwater mitigation strategies for new construction. Nearby Orange County, California, particularly vulnerable to droughts and seawater contamination, has pioneered extensive water recycling programs that lessen its reliance on outside resources. And Native American tribes in the region, which have traditionally been dispossessed of their water rights despite

and bringing wildlife back to its formerly barren banks.

Resident buy-in and input has been key to implementing many of these changes, making community outreach all the more vital. In roughly 102 communities around Los Angeles, Tree People's WaterTalks program conducted needs assessments around water issues. Understanding those needs ahead of time flips the typical development process on its head. Smart planners can budget in stormwater projects and water reclamation for, say, a soccer field city residents want. The alternative—residents feeling like their requests must over-

Increasingly, planners can't create the kind of city that attracts and supports residents without planning for water at the center of it.

federal rulings granting them 22 percent of the Colorado, plan to dedicate new federal dollars from the Infrastructure Investment and Jobs Act to conservation and sustainability (the act gives \$4 billion for water management to communities across the basin). The Gila River Indian Community in Arizona, for example, aims to build solar panel shade covers for canals and invest tens of millions of dollars in infrastructure for reclaimed water.

While facing calamitous drought, Tucson, Arizona, developed an award-winning reclaimed water program. In 2021, the customer base of the local utility used the same amount of water as it did in 1990, even with about 200,000 more residents. The strategy—which includes planting one million drought-tolerant trees by 2030, embracing stormwater, and incentivizing homeowners and neighborhood groups to incorporate green infrastructure—has empowered residents. Neighborhood-scale rainwater-harvesting grants and a rebate program that has conserved nearly 200 million gallons of water in a decade show the potential of encouraging better design. The city has even released reclaimed water into the Santa Cruz River, recreating a year-round riverfront

come bureaucracy that impedes new developments and amenities—hurts engagement and efficiency.

"There's been a sense that the public can't possibly understand things," Begley says. "And that's been a major blind spot." As community groups become more informed about water issues, she adds, outreach becomes more successful. In Phoenix, that allows for tackling the complex interplay between water management and other issues impacted by climate change, like extreme heat.

"Our existential threat in the Phoenix area isn't water supply; it's heat," Porter says. "We are kind of the test bed for what happens with the urban heat island, and hopefully urban heat island mitigation. And how do you mitigate heat? Plants are a huge solution, and especially trees, and they need water."

Porter's point is that while water is necessary for growth, that growth can be shaped and directed toward sustainability. Increasingly, planners can't create the kind of city that attracts and supports residents without planning for water at the center of it.

"Do you want to have a Phoenix where you don't have parks and shady trees and walkable corridors?" Porter asks. "That's the kind of water discussion I think planners should be involved in because planners inform so much of that."

Patrick Sisson is a Los Angeles-based writer and reporter focused on the tech, trends, and policies that shape cities.

BEYOND FAITH

How planners can help resurrect aging and empty church properties, support communities, and expand housing opportunity.

By NADIA MIAN, PhD, and RICK REINHARD

Centre St. Jax in Montreal, originally an Anglican church, now hosts community events, worship services for the original congregation, and organizations like a circus cabaret and an agency serving immigrants.

COURTESY CENTRE ST. JAX

INDIANA CITIES AND TOWNS HAVE A PROBLEM: TOO MANY VACANT OR UNDERUSED CHURCHES.

The Episcopal Dioceses of Indianapolis and Northern Indiana oversees 82 of them, many with deteriorating buildings and empty pews, says Bishop Jennifer Baskerville-Burrows, who holds a master's degree from Cornell University in historic preservation planning. She was determined to do something. "Our properties were underutilized, not fully connected to the communities they serve," she says.

The dioceses launched an initiative, Church Buildings for Collaborative Partnerships, to look at how to reuse and redevelop the properties, as well as how to use real estate as a tool to meaningfully engage communities. It's not always easy. "They haven't been teaching this in divinity school," says Baskerville-Burrows.

The dilemma facing Episcopal churches in Indiana is happening all over the country and across religions and denominations of all kinds. A 2020 Gallup survey showed that, for the first time in the survey's eight-decade history, fewer than half (47 percent) of all Americans belonged to a church, synagogue, or mosque—a huge dip from 70 percent in 1999.

The sanctuaries themselves are also in decline. A Protestant denomination in New Jersey rated its 500-plus churches on 10 factors and reported that 20 percent were in critical condition, with tiny congregations, precarious finances, and deteriorated real estate. Forty percent were right behind in serious condition.

But in some places, the transition of a church building or other property from its strictly institutional use can be a blessing in disguise. Reusing and redeveloping houses of worship is particularly attractive for affordable

housing because the need is so great. The U.S. has a shortfall of 3.79 million housing units, according to the report *Housing Underproduction in the U.S.* Plus, providing affordable housing often aligns with faith institutions' values and missions.

Now, some municipalities, religious organizations, planners, and developers are embracing the concept and putting in place the zoning changes, financial support, and incentives to turn houses of worship into homes.

The practice can also benefit struggling religious institutions in need of extra revenue, as well as add to a city's property tax rolls. And, while there are no national records tracking the number of faith-owned properties or the acreage they occupy, several state and local efforts show there is plenty of land available for redevelopment.

A different kind of stewardship

A 2020 report by the Terner Center for Housing Innovation at the University of California, Berkeley, used county assessor data to calculate the land used for religious purposes and how much of it could be developed for housing. The statewide effort identified about 12,000 acres of church-owned land in five California counties with the best potential for affordable housing redevelopment.

In Seattle, and in many places, planners and congregations are eyeing empty church parking lots for redevelopment. "Faith institutions that have these large parking lots are driven by a vision of maintaining their properties, staying in the neighborhood, and continuing to serve affordable housing or other services," says Stephanie Velasco, housing levy communications manager with the Office of Housing in Seattle.



A seven-story, 92-unit permanent supportive housing facility is being built by developer LIHI (Low Income Housing Institute) on property owned by the Lutheran Church of the Good Shepherd. Situated in Seattle's Central District, the project is one of the first to be permitted under the city's Affordable Housing on Religious Organization Property ordinance, which increases the allowed density.



The city has identified about 300 acres of church-owned land (out of a total 53,163 acres) and is offering a density bonus to churches that develop affordable housing on their land. Importantly, there's a movement to redevelop Black-owned churches to create affordable housing in Seattle. (Oakland, California, and Washington, D.C., are making similar efforts.)

For houses of worship struggling to make ends meet, renting out underused property with a strong lease agreement is an obvious path to financial sustainability. "Selecting a tenant that aligns with the congregation's personality can also help to expand the church's mission," says

The plan to breathe new life into St. Lucy's Roman Catholic Church in Jersey City, New Jersey, includes a mixed-use development with market-rate residential, commercial, and garage space. Across the street, supportive housing and a shelter are being built on another church-owned parcel.

J. Howard Kucher, DPA, associate professor and program director in social entrepreneurship at the University of Maryland at Baltimore.

Kucher uses local market data to help determine potential rental revenue. The weak spot in this strategy, says Kucher, "is that the congregation tends to want to charge below-market rates as they see it as ministry," and that approach might not pencil out.

Most houses of worship are exempt from paying municipal property taxes. Several municipalities—especially old, industrial cities—can find that more than 50 percent of their property value is tax-exempt.

Adding those parcels to the tax rolls could help balance city budgets and fund essential services. When First United Methodist Church in downtown Seattle sold its property to developers for \$30 million and relocated to more modest quarters a few blocks away, it provided a sizable boost to the city's commercial tax base.

The possibilities for redevelopment are many, but success does depend on that old real estate adage: location, location, location. In weaker markets, religious properties can sit vacant for years, often at the most prominent intersections in town.

That was the case in Ottumwa, Iowa, where eight houses of worship have closed in recent years in the city of 25,451 people, says Fred Zesiger, executive director of Main Street Ottumwa. Three have discovered alternate uses—a creative arts space, a medical office, and a residence—and another hosts a small immigrant church. One is struggling to be converted to a women's shelter, one was demolished for a parking lot, and the other two sit empty.

In robust real estate markets, faith properties more readily transition to housing, commercial, retail, or mixed-use developments, but development pressure and financing could make choosing affordable housing or other community uses more difficult.

Plenty of challenges

As communities consider redeveloping houses of worship into affordable housing or other uses, there are likely to be challenges—some of

them significant. Although a major part of a pastor's job may be managing a large church property, divinity schools teach little about real estate or urban planning.

There is a learning curve to working with religious institutions, which might base decisions on emotion rather than logic. Organizational structure differs, too. Some denominations employ top-down decision-making, with a bishop or like official calling the shots. Others call for the congregation to vote on major moves. Understanding the decision-making process can be frustrating and time-consuming—and to a developer or financier, time is money.

Repurposing houses of worship to another use could also mean the loss of space for social services—like childcare centers, clothing closets, health clinics, and self-help groups—that often greatly outweigh the size and scope of a congregation.

There is an “economic halo effect,” with the average urban congregation creating more than \$140,000 per year in value through the contribution of volunteer time, the provision of space at below-market rates, and cash and in-kind donations to community-serving programs, according to research from Partners for Sacred Places, a Philadelphia-based not-for-profit organization working on saving historic churches, and the University of Pennsylvania School of Social Policy and Practice.

Many houses of faith have limited access to capital, especially for the pre-development studies required to launch a reuse or redevelopment initiative. Hierarchical denominations such as the Roman Catholic Church, Lutheran Church, or United Methodist Church may have access to loans or grants, but others rely on traditional financial institutions—and banks might not be comfortable loaning money to a house of worship that may struggle to show it can repay a loan in 25 or 30 years. Further, high development costs per unit (and a small number of units) might mean typical sources of financing for affordable housing projects won't work.

Zoning reform, funding, and other support

Local regulations can limit what a house of worship can do with its property, but in a number of places that is changing for the better.

In San Diego, Clairemont Lutheran Church was struggling to build affordable housing on its parking lot because parking requirements were tied to the linear amount of pews in the sanctuary. The church approached the city and an advocacy group, Yes in God's Backyard (YIGBY), for help. The collaboration paid off. In 2019, San Diego passed zoning reforms that reduce or remove parking requirements for redevelopment for affordable housing.

“The parking requirement was really outdated for churches,” says Brian Schoenfisch, deputy director of the City of San Diego's Department of Development Services, Urban Division. He notes that the regulations were created a half century ago when the city operated under “a very different model of suburban development.” Planners worked with transportation and engineering staff to create a new formula.

In 2020, California followed San Diego's lead. The state passed AB1851, legislation that reduces or eliminates parking requirements for

5 ACTIONS TO SUPPORT CHURCH CONVERSIONS

COLLECT AND ANALYZE DATA. How many underused houses of worship are still active? How many are closed? Which ones are in trouble? Are any interested in mission-based real estate development?

BUILD RELATIONSHIPS. Act as a convener and collaborator. Understand the goals and even the vocabularies of religious organizations—as well as those of developers, city agencies, and financiers. Ask whether planners can play matchmaker for potential collaborators.

UPDATE CODES AND POLICIES. Are your jurisdiction's zoning code, building codes, permitting processes, or property tax policies prohibitive to redevelopment? Can they be changed, even in incremental ways? Consider cross-sector collaborations with engineering, transportation, and housing departments.

IDENTIFY FUNDING SOURCES. Affordable housing developments often take multiple leveraged funding sources. Besides faith-based lenders, banks, and social impact investor groups, look to inclusionary zoning programs, housing levy programs, and housing authority bonds at the local level, as well as federal sources like COVID-19 relief funds and low-income housing tax credits.

HELP BUILD CAPACITY. Educate faith-based organizations about zoning, entitlements, market conditions, and financing. External partners such as Enterprise Community Partners, LISC, and Partners for Sacred Places also can provide resources, funding, and access to peer networks.



faith-based affordable-housing developments. And in Pasadena, the zoning ordinance was changed to permit religious institutions in certain areas of the city to build up to 36 affordable dwelling units per acre.

In addition to zoning reforms, planners across the country have been working with houses of worship and cities to support the construction of affordable housing in other ways.

Washington State signed HB1377 into law in 2019, allowing municipalities to provide a density bonus for housing on church-owned properties as long as it is affordable to those making up to 80 percent of the area median income (AMI) and remains affordable for 50 years. Seattle adopted the legislation in 2021 after holding public outreach sessions, but it deepened the affordability requirement to 60 percent of AMI—and won the Governor’s Smart Housing Strategies Award for its work. Lutheran Church of the Good Shepherd is the first to use this new tool to construct a

In 2019, the \$60 million Beacon Center opened in Washington, D.C., at Emory United Methodist Church. With the historic church at its center, the campus includes 99 affordable housing units; a culinary arts training center, restaurant, and food pantry; a health clinic; immigration clinics; and a gymnasium and offices available for lease by the community.

seven-story, 92-unit building in Seattle’s Central Area.

Atlanta and San Antonio launched initiatives that provide technical assistance and predevelopment grants, which often are a major obstacle to getting a project going. The Atlanta program aims to create 2,000 units in collaboration with religious institutions.

Bishop Baskerville-Burrows is optimistic about initiatives to involve congregants and the community over church real estate. “Our program teaches people to see the value that their properties can offer the community,” she says. “Partners can come together quickly” as houses of worship look for a renewed mission and municipalities seek affordable housing and other community assets.

Nadia Mian, PhD, is senior program director of the Ralph W. Voorhees Center for Civic Engagement. Funding for her research was provided by the Louisville Institute, and research support came from Kyle Cruz. Rick Reinhard is principal of Niagara Consulting Group and an associate at the Lakelands Institute in Montgomery County, Maryland.



MIDTOWN PARK

Midtown District, Houston, Texas

THIS THREE-ACRE GRASSY PARK nestled in the vibrant Midtown District represents the capstone of a 10-year strategic plan to remake the neighborhood into a pedestrian-oriented, mixed-use hub. The “Bayou”—a constructed water channel and detention system—is the backbone of the site and local ecology. Working in tandem with bioswales and rain gardens, the Bayou protects against flooding and improves water quality and wildlife habitat. Rainwater is also collected and stored within a 70,000-gallon subsurface cistern and reused on-site for irrigation. But it’s more than a green space: it is the centerpiece of an area brimming with much-needed housing, commercial space, and new areas for people to gather.

Crossing a bridge over the Bayou, visitors learn about the natural wetlands and swamps of Houston. (Got a climate win-win that makes your Community Green? Tell us about it: Email mstromberg@planning.org.)



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