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Connecticut Chapter

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PRESIDENT'S MESSAGE



E ven with a delayed start to Spring, the Connecticut landscape is full of vibrant color and the good weather is finally here. While many of us will glide into a summer routine, our thoughts are first with those impacted by the multiple tornadoes which hit our state in May as well as those still dealing with the aftermath of Hurricane Maria. These events further heighten our awareness and mandate to share services and collaborate on a regional basis.

This has already been a busy and productive year for CCAPA and I wish to thank the members who have volunteered their time and professional skill on a number of initiatives.

The **Start with Planning** policy platform has been well received at the local and national level. The overall strategic direction has been useful in discussions with gubernatorial candidates. Furthermore, the five technical papers are guideposts for presentations to larger audiences. Most recently, four members of our chapter presented at a May 11 forum convened by CIRCA. The forum included an insightful keynote address by Harriet Tregoning, entitled, "Connecticut's Future in a Disaster-Prone World." Ms. Tregoning is the former HUD Deputy Assistant Secretary of the Office of Community Planning and Development and she emphasized the value of sound planning in her remarks. CTN covered the event and you can view the proceedings at tinyurl.com/y7vzosof.

At the State Capitol, our Government Relations team hosted another successful Legislative Breakfast with Representative Lemar and Senator Logan from the Planning and Development Committee along with eight other legislators in attendance. Members had the opportunity to speak one-on-one with their elected officials. The Government Relations team was joined by Erin Wilson from the City of Torrington to present the overall legislative agenda and feature initiatives around fair housing and economic development. Special thanks to Milone & MacBroom for sponsoring the Legislative Breakfast. With their support, we printed and distributed 100 copies of the special "Start with Planning" edition of this magazine.

CCAPA members were well represented at the APA National Planning Conference in New Orleans at four different sessions. For

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Cover photo: Sam Churchill

CONNECTICUT PLANNING

is published quarterly by the Connecticut Chapter of the American Planning Association. Contributions are encouraged. Submissions must include the name and contact information of the contributor. Material may be edited to conform to space or style requirements. Please address submissions to Executive Editor Rebecca Augur, AICP (contact information below).

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PRESIDENT'S MESSAGE, cont'd

example, members Elise C. Greenberg from Connecticut DOT and Kacie Costello Hand from the Town of Wallingford presented with Max Sokol from WSP on the transit-oriented development planning efforts associated with the launch of the new Hartford Line passenger rail service. Together with the other Connecticut-focused presentations, Elise, Kacie, and Max presented our state in a positive and forward-thinking manner to a national audience. I also wish to extend the Chapter's appreciation to Robinson & Cole for once again sponsoring a reception for members of the Connecticut, Massachusetts, and Rhode Island chapters. It is always good to collaborate with our Southern New England colleagues both at the NPC and at SNEAPA later in the year.

One of our core responsibilities at the NPC is to represent the collective voice of Connecticut on matters of national planning policy on the Chapter President's Council and at the Delegate Assembly. This year, there was intense focus on a major APA initiative called "Planning Home," concerning affordable housing, and a new policy paper on social equity. Please participate in these important discussions — you can learn more at www.planning.org or by reaching out to me by email. My thanks to Emily Hultquist, past president of the chapter, who represented the state at the Delegate Assembly.

CCAPA planners recognize our important role on "Team Connecticut." Looking ahead to the rest of this year, we will continue to lend the "planner's perspective" during the statewide election cycle through one-on-one conversations and large group presentations. I welcome your direct involvement in this dialogue, and you may always reach out to discuss further.

Finally, allow me to extend a heartfelt appreciation to Sue Westa, our longstanding Professional Development Officer (PDO), who recently relocated to Massachusetts. Sue has assisted many of our planners and economic development professionals through her work at the Connecticut Main Street Center. As PDO, she mentored our members through the AICP and continuing education process. Thank you, Sue, for your outstanding service to Connecticut's planning community!

Enjoy the rest of your summer, and I look forward to seeing you at an upcoming program or event, including the Southern New England Planning Conference featuring singer/author Dar Williams on our "home court" in Hartford!

If you would like more information on the many ways CCAPA can assist you in professional practice, please call me at (203) 946-2867 or email me.

— Michael Piscitelli, AICP





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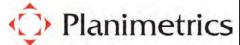
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FROM THE EDITOR

Tt's an exciting time to be a planner, as the Lountry is poised for a major transportation revolution in the form of driverless cars. It's also a difficult time to be a planner when there's no clear roadmap for when and how the revolution will come. What should we be including in our long-range plans now to ensure that we are ready to embrace new technologies when they emerge? We hope this issue gets you thinking and debating these questions within your own communities, as you learn about a statewide task force and program underway to test autonomous vehicles (AVs) on local roads and the myriad planning implications of this technology. We've also news on the latest evaluation of the nation's infrastructure, and our regular "From the Bench" column.

As always, my email box welcomes your ideas for topics that interest you, or even just referrals to great articles you found recently. Happy planning!

— Rebecca Augur

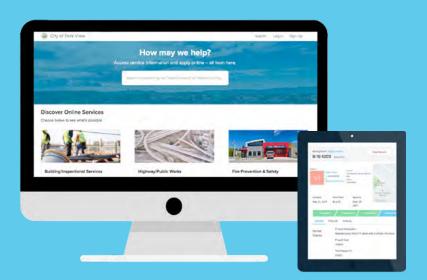




"What should we be including in our long-range plans now to ensure that we are ready to embrace new technologies when they emerge?"

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State Peers Into Driverless Future

by Thomas Breen

Seventy-five years from now, when the streets are filled with driverless cars that never speed, how will governments make up for lost traffic ticket revenue?

In a world without car crashes, what will happen to auto body shops?

And will anyone ride the trains anymore if a comfortable, convenient, affordable rideshare service is just a phone click away?

Adam Blank is thinking through those questions over the next few months as he helps usher in the rapidly approaching era of the driverless car to the Nutmeg State.

Blank, an attorney, is one of 11 Connecticut residents appointed to a state task force to investigate the future of driverless cars in Connecticut. He came on WNHH's "The Legal Eagle" program to talk about the mission of the task force, as well as

about the technological innovation's political, economic, and environmental consequences.

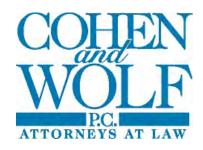
The task force, which includes Commissioner of Motor Vehicles Michael Bzdyra, Commissioner of Transportation James Redeker, and Secretary of the Office of Policy and Management (OPM) Benjamin Barnes, will also make recommendations on how to establish driverless car pilot programs in four Connecticut cities: New Haven, Hartford, Waterbury, and Stamford.

The state legislature created the task force in June 2017, yet the group has yet to meet. Blank said that the first meetings were delayed because of the state budget crisis last fall. He said he expects that the task force will meet soon. He said that the task force's recommendations should be ready by the fall.

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A state task force will investigate the future of driverless cars in Connecticut and make recommendations on how to establish pilot programs in four Connecticut cities: New Haven, Hartford, Waterbury, and Stamford.





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Driverless Future, cont'd

Utopian Promise

Driverless cars, also known as "autonomous cars" or "robot cars," are automobiles that essentially drive themselves.

Blank said that driverless cars are ranked from zero to four based on the level of automation.

Level 0, he said, applies to cars that are not automated, and are controlled entirely by a human driver.

Levels 1 and 2 apply to cars with some automated features, such as adaptive cruise control, automatic breaking assists, blind spot warnings and lane departure warnings. These cars still primarily rely on a human driver.

Levels 3 and 4, he said, apply to cars that drive themselves entirely. They don't need steering wheels or brake pedals. They use a combination of GPS, LIDAR (or light detection and ranging), Wi-Fi, infrared cameras and regular cameras to navigate their surroundings without the help of a human driver.

But Blank, a personal injury lawyer who spent a decade on Norwalk's zoning commission, said that his interest in driverless cars extends beyond the technological marvel of it all and more towards their utopian promise, their political and economic ramifications, and the profound social and ethical questions that they raise.

"This is an important moment for the [car] industry and for the public," Blank said. "The promise of these vehicles is that they're going to very, very substantially reduce motor vehicle crashes and fatalities."

One-third of the country's motor vehicle-related fatalities are related to alcohol. Motor vehicle accidents are the leading cause of death for 15-to-29 year-olds in this country.

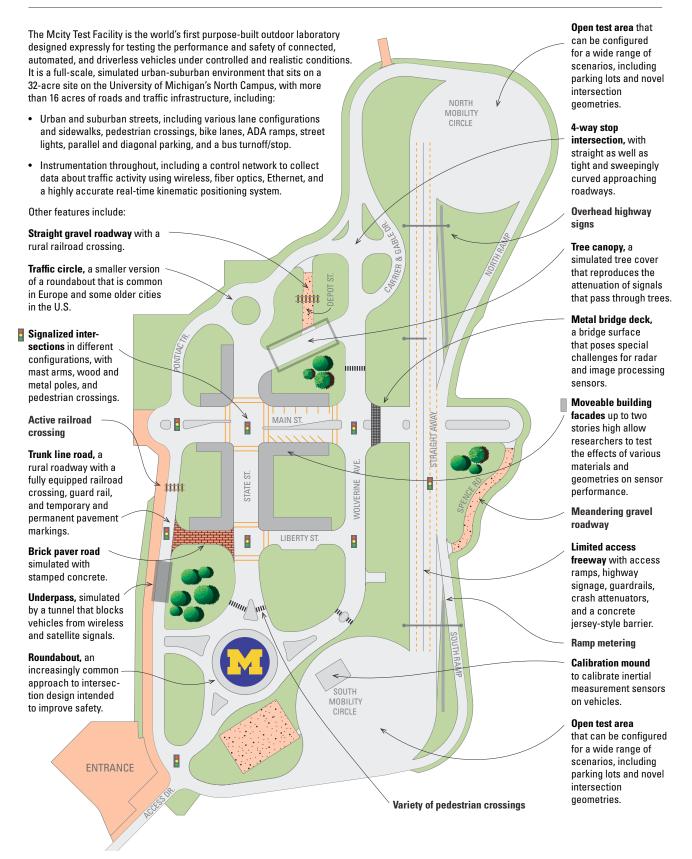
He said that one of the key hopes for driverless cars is that, without the risk posed by a distracted or impaired or drowsy driver, the number of automobile-related injuries and fatalities will drop significantly.

But, he said, there will still be accidents and malfunctioning technology, particularly as society transitions from

(continued on page 8)

Mcity Test Facility: An Outdoor Lab





Mcity is a simulated city constructed by the University of Michigan in Ann Arbor built for the sole purpose of testing automated vehicles. It is one of only a few such testing facilities around the country right now. GoMentum Station is another testing facility located at a naval weapons station in California. The American Center for Mobility is yet another located at a former Ford bomber factory in Ypsilanti, Michigan.



In the Lower Bavarian spa town of Bad Birnbach, a driverless mini electric bus brings passengers free of charge from the town center to the spa and back.

Without the need for a driver, car interiors will come to resemble offices or living rooms, with a higher focus on comfort and "infotainment."

Driverless Future, cont'd

primarily non-automated to primarily automated vehicles on the road.

He noted the death of a woman in Tempe, Arizona, who was struck and killed by a self-driving Uber car earlier this month as one of the industry's first examples of the dangers inherent to this transitional moment.

Whom to Sue?

As a personal injury lawyer, Blank said, he is interested in helping Connecticut figure out how the state's legal system can and should work to make sure that there is a fair and efficient process for resolving driverless car accidents.

He said that one way that the law could handle such issues is by assuming that the owner of the vehicle, whether that owner is an individual or a rideshare service like Uber, is always responsible for the vehicle's actions. If a lawsuit is filed, it would be filed against the vehicle's owner.

However, he said, he would like to see manufacturers of automated cars provide insurance at a high amount that would cover the vehicle and the owner. When a claim is made against the owner, he said, the auto insurance would come from the manufacturer, not some individual auto policy.

He also said that the law should

determine responsibility for accidents involving automated cars by assessing which party violated the rules of the road.

But the questions posed by a future of driverless cars are not just legal ones, he said.

Without the need for a driver, car interiors will come to resemble offices or living rooms, with a higher focus on comfort and "infotainment," Blank said. Automated cars will be equipped with a suite of functional and recreational technologies that will collect reams of customer data for car manufacturers to mine.

"What happens to the data they compile about where you're going, or what you're doing?" he asked. "Will it be made anonymous?"

He also said that any technology, no matter how secure, is vulnerable to hackers, and so driverless car advocates need to be wary about privacy and safety concerns that accompany the technology.

"Do we wake up one morning where every GM car has been hacked, and they've all been hacked so that they crash at 90 miles per hour?" he asked. "Can they hack and kidnap you?"

He also asked what the long-term impact would be on government revenue.

He said that the computers that drive automated cars will be programmed not to speed, and therefore governments will no longer have access to the estimated \$3 to \$7 billion in annual speeding ticket revenue.

One Word: Plastics

In a future with no accidents, Blank said that driverless cars would be made of light-weight plastic, not heavy steel, which would make the cars much more fuel efficient but would also disrupt the current steel industry.

He said that the trucking industry is particularly keen on driverless cars, as they would eliminate the need to employ 3 to 4 million truck drivers, and would result in the faster or more efficient transportation of goods throughout the country. But what about those drivers' jobs? And what about truck driver license revenue collected by the state?

Blank said that semi-automated cars (continued on page 10)

Autonomous Vehicles Information Resources

Google "autonomous vehicles" and you can quickly become overwhelmed with the volume of information out there. Some good sources to look to:

- American Planning Association The APA's knowledgebase collection on autonomous vehicles provides a quick overview of the host of issues involved with AVs, and catalogues several valuable background papers, staff reports and videos. In addition, a PAS Report Preparing Communities for Autonomous Vehicles was issued in February and is available to all members.
- UConn's Transportation Safety Research Center (CTSRC)
- The CTSRC hosted the Northeast Autonomous Vehicle Summit in March of 2017. The presentations and summit report are available on CTSRC's website.
- National Conference of State Legislatures (NCSL) The NCSL provides a good overview of what's happening in states around the country on autonomous vehicles on its AV resource page.



Toyota's Concept-I, the company's vision for vehicles in 2030.



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Driverless Future, cont'd

will become more and more popular over the next ten years, but that the widespread adoption of fully automated cars is still a while away.

In the meantime, he said, he and his colleagues on the task force will work to develop recommended guidelines for when, if things go wrong, there's a fair system in place to protect drivers, cyclists and pedestrians, and to penalize those who violate the rules of the road.



IBM's Watson-Olli, IBM and Local Motors' autonomous shuttle that operates in National Harbor, Maryland.



Reimagining Automobiles, Cities, and Planning in a World of Autonomous Automobility

by Donald J. Poland, PhD, AICP



Much attention has been given to autonomous automobiles (self-driving cars), their development and evolution, and their possible impacts on society. Much attention has also been given to the impacts of autonomous automobiles on urban space and urban planning. For example, the Regional Plan Association (RPA) recently published a report, New Mobility: Autonomous Vehicles and Region. The RPA report provides a detailed and interesting account of the timing, possible impacts, and proposed policy/planning solutions for dealing with the arrival and integration of autonomous automobility. Unfortunately, the RPA report (from my perspective) views autonomous automobility through too narrow a lens, a lens focused on land use planning that under-conceptualizes the arrival and integration of self-driving vehicles as simply an advancement in automobile technology, rather than a new means of mobility that will transform how we live our lives.

To best understand and appreciate the technological advancements and transformative capacity of autonomous automobility, we must first place this technology in context to other past advancements in transportation and the resultant impacts to the city — urban and suburban space. For example, little has changed — from

a technological perspective — in the design of automobiles since the introduction of the mass-market automobiles. An automobile is simply a chassis, four wheels, an engine, and seats designed for a forward-facing and seated driver (and passengers). Around this configuration

(continued on page 12)

To best understand and appreciate the technological advancements and transformative capacity of autonomous automobility, we must first place this technology in context to other past advancements in transportation and the resultant impacts to the city.

Waymo Chrysler Pacifica in Los Altos, 2017.

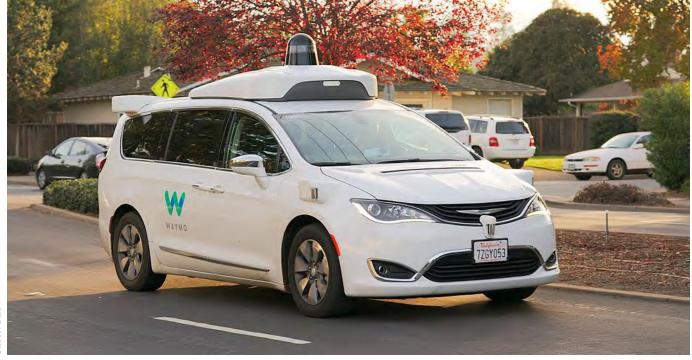


Photo: Dllu

It is how space and time translate into lifestyle that I find most interesting and that I believe is most important regarding autonomous automobility.

Reimagining Automobiles, cont'd

of the automobile, a system of automobility has evolved that includes the auto industry, infrastructures, materiality, and ownership; most notably, a mostly operator-owned system of ownership.

Our urban and suburban history has repeatedly demonstrated that advancements in transportation technologies influenced the spatial and temporal distribution, organization, configuration, and design of urban (suburban) space and lifestyle. For example, the transition from the walking city to the streetcar and later the automobile resulted in the spatial growth and new patterns of commuting, as time and distance were compressed. Another example can be seen with the advent of commercial flights and the compression of time and distance over that which was possible with rail, resulted in the development of a large, complex, and mostly efficient commercial air-travel systems that connected and tethered the economies of distant cities across our continent-size country (and beyond).

In planning we tend to privilege space — the outward spread of urban space in the form of suburbanization and sprawl — over time. That is, we tend focus more on spatial changes than the temporal changes. However, it is time, the ability to cover more distance (space) that is as, if not more, transformative. More important, it is how space and time translate into lifestyle that I find most interesting and that I believe is most important regarding autonomous automobility. For example, the streetcar and automobile created the ability to live in spatially distanced bedroom communities, with little increase in commuting time (over walking). However, the automobile also created an opportunity for a personalized commuting experience on an individualized schedule, and made possible by private automobile ownership.

I explain this not to argue that autonomous automobility will obliterate space and time, unleashing further suburban expansion and sprawl (which it might, as noted in the RPA report). The point I

(continued on page 13)



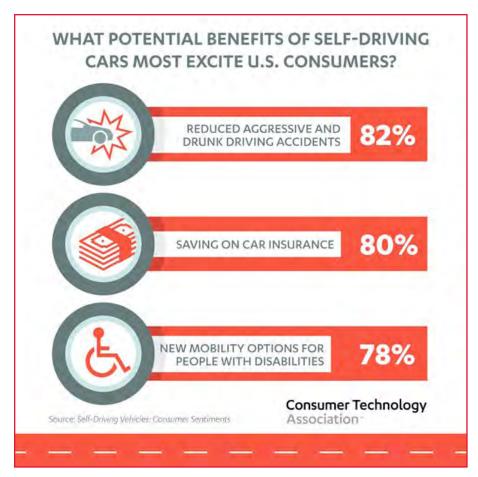
Reimagining Automobiles, cont'd

wish to highlight is the transformative nature of changes in transportation technology, not simply in the context of space, but also regarding time. My point is that to best conceptualize and understand the possible impacts of autonomous automobility, we must also seek to understand how time will be impacted and how time translates into lifestyle — how we live our lives in urban space.

As discussed in the RPA report and often reported on in the media, the topic of ride-hailing and sharing products/ services has become a growing interest in planning and how we engage in transportation. While similar, yet different, from conventional taxi services, ride-hailing has expanded our understanding of individualized mobility and automobile ownership. Combined with autonomous automobility, ride-hailing unleashes new possibilities that are more about time and lifestyle, than they are simply about space. That is to say, autonomous automobility through the ride-hailing like services with impacts to time and lifestyle — for example, automobile ownership — more than space. A hybrid form of ride-hailing and autonomous automobility has the potential to creatively destroy the private operator-owned automobile. In doing so, this hybrid form of mobility has the capability to creatively destroy the automobile as we know and understand it.

Reimagining the Automobile

Today we are at start of autonomous automobility and therefore, it is understandable that much of the focus is on the



Source: Consumer Technology Association

technology and how and when it will be deployed. Through the transition period from driver-assisted to full autonomy it is also understandable that we remained focused on drivers and the driver-assisted platform. However, what happens to the design of automobiles at the moment of fully autonomous automobility? More important, how does a fully autonomous automobile — with no driver required, impact how we engage in automobility?

(continued on page 14)





The Family Pod will be a mid-sized four- to six-seater with cargo space, personalized USB ports, video screens, an interior designed for comfort, and aimed at moving the family on outings and/or vacations.

Reimagining Automobiles, cont'd

In other words, how does this impact lifestyle?

To reimagine a future of fully autonomous automobility, we must reimagine the design of the automobile. While transportation will remain the primary utility and function of the automobile, how we engage in automobility will be creatively destroyed as the autonomous automobile will be redesigned around new and evolving needs, wants, passions, and enthusiasms. For example, the interior space of the automobile will no longer be constrained by the forward-facing driver (and passengers). Removing this constraint will unleash creative opportunities for interior spaces designed around activities, sociality, and experience. This change in the interior space of automobility will also change how we conceptualize time.

The new interior space of autonomous automobiles — space designed specifically for commuting, working, exercising, socializing, sleeping, and more — will allow the occupants to engage

in automobility and utilize the time of automobility in ways that are not possible now. These changes are what will drive the shift from privately owned automobiles to hybrid ride-hailing services and products. Such companies will offer use-specific automobiles — or what I call mobility pods — that can't be realizing through the private ownership of one autonomous automobile. Similar to how we contract for smart phone services, consumer will purchase hybrid ride-hailing plans structured around usage (i.e., time, miles, total trips, etc.) and needs/wants (i.e., quality and use-type of the mobility pod). We will then schedule and/or summons the mobility pod via smart phone applications that best meets their needs, wants, passions, and enthusiasms, for the kind of movement we need to make.

For example, the Commuter Pod may be a small, electric, energy efficient pod with a short-range design for a singleoccupant, and designed with a seat, desk, coffee holder (or coffee maker), USB ports, and video screen that allows us to

(continued on page 15)



Reimagining Automobiles, cont'd

stream content from our smart phones. The Soccer Pod may be larger, eight-seater, with a durable interior designed to move our kids and their teammates to and from sporting events. The Family Pod will be a mid-sized four- to six-seater with cargo space, personalized USB ports, video screens, an interior designed for comfort, and aimed at moving the family on outings and/or vacations. Such a vehicle may utilize a hybrid electric/gas engine proving maximum range. The options and opportunities for use-specific mobility pods are endless. But from these three examples, we can begin to conceptualize and understand how the space and time of automobility designed around engaging our needs, wants, passions, and enthusiasms will transform how we move from place to place and how we live in urban (and suburban) space.

The fee-for-service hybrid ride-hailing system will allow greater access to mobility for larger socio-economic segments of the population. Persons who are part of



the working-poor will be able to contract for the low-cost, no-frills, five roundtrip commutes per week in a Commuter Pod. The more well-to-do individual can contract for unlimited access and use of a full line of pod types, including higher end luxury pods. Such systems can also engage the passion and enthusiasm of

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The disruption to jobs — both direct and indirect — will extend further into our economy than most reports assume.

Reimagining Automobiles, cont'd

the environmentally friendly consumer contracts for the sustainability package that offers smaller, lightweight, single or two-person pods with electric motors.

Reimagining autonomous automobility through pods designed for utility and consumer needs, wants, passions, and enthusiasms creatively destroys automobility as we know it today. It unleashes new and endless possibilities to conceptualize and understand how transformative this technology can and will be — how it will transform how we live our lives and how we engage in urban space. It is the change in how we live and how we engage in urban space that will impact the spatial structure, social-organization, and physical design of cities, suburbs, and small towns (urban space).

Implications — The System of Automobility

As discussed above, innovations in transportation historically have had influenced the spatial, social, and temporal organization of cities — of urban space. Transportation innovation has transformed how we live and how we engage

in urban space. Today we are on the verge of autonomous automobility, the next epoch in transportation innovation — the most meaningful innovation in mobility in the last 80 years — that will transform mobility and cities. This transportation innovation will not simply transform automobiles and personalized mobility; it will also transform the large complex system of automobility. This includes, but is not limited to, automobile infrastructure, manufacturing, sales, service, jobs, land use, design, etc.

To highlight how vast the system of automobility is and how far-reaching the implication of autonomous automobility will be, I will explore one component of the system: jobs. The disruption to jobs — both direct and indirect — will extend further into our economy than most reports assume. For example, most studies and discussions of job impact focuses on those jobs directly related to transportation: truck, taxi, bus, and Uber drivers. But how many jobs are connected or dependent on our system of automobility? What about jobs in automobile manufacturing, sales and service, emergency

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GM autonomous vehicle being tested at GM's Technical Center campus in Michigan.

Reimagining Automobiles, cont'd

response, traffic enforcement, motor vehicle registration, driver licensing, personal injury law, medical care, and insurance? This is not to say all the impact on jobs will be negative or result in job loss. New jobs will be created.

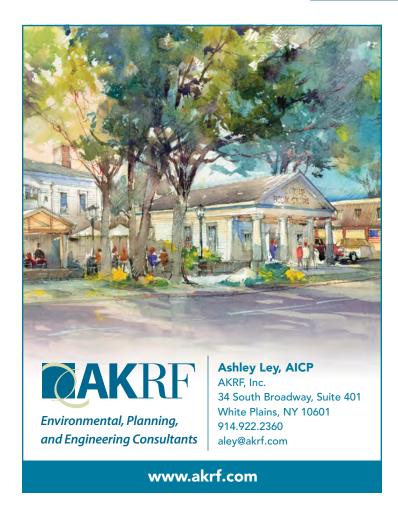
However, thinking critically about the impacts on jobs allows use to think about the public policy implications. For example, what does a new system of automobility mean for governance structures, policy, and planning? Vehicle registration by fleet — hybrid ride-hailing companies — and declining personal ownership will result not only in the loss of DMV jobs and tax collector jobs, but also in the loss of registration revenue for state government and personal property tax revenue for local government. New affordable access to automobility for the working poor may negatively impact public transit usage, while new mobility opportunities for senior citizens may result in less need for dial-a-ride services. Reductions in

(continued on page 18)

Connecticut Launches Fully Autonomous Vehicle Testing Pilot Program

Pursuant to legislation passed in 2017, the Office of Policy and Management, in collaboration with several other state agencies, has launched the State's Fully Autonomous Vehicle Testing Pilot Program (FAVTPP). In launching the program, Governor Malloy stated: "Make no mistake, autonomous vehicles are the future of transportation, whether it is people looking for a safer and easier commute, more efficient and cheaper commercial transit, more precise ride-sharing and for-hire services, or beyond. These vehicles are going to be part of our lives soon and we want to take proactive steps to have our state be at the forefront of this innovative technology. We are showing this industry and those around the country that we promote the development of these kinds of forward-thinking, technology-driven products in Connecticut. We cannot allow our state to be outpaced as this technology grows."

The program will enable up to four municipalities to test fully autonomous vehicles on their streets. Applications are currently being accepted to become one of the pilot communities. Requirements and application materials are available on OPM's website.





Reimagining Automobiles, cont'd



GoMentum Station is another testing facility located at a naval weapons station in California.

accidents and the elimination of traffic violations will decrease the need for police and fire services. As the shift to automobility ride-hailing fleets increases, the demand and need for dealerships selling to individual consumers will decline. What becomes of

dealership land uses? The same is true of gas and service stations that focus on the individual consumer — functions that will now be incorporated in the ownership and maintenance of fleets. What new facilities and land uses will be needed for such ride-hailing fleets?

The implications of the shift to fully autonomous auto mobility, is complex and far reaching. This includes site planning. What happens to the space of parking? Not simply the vast parking of strip malls and office parks, but what about the single-family driveway and garages that support a system of private automobile ownership? How are retail and office sites redesigned to accommodate arrivals (drop-offs) and departures (pick-ups)? What becomes of the space of on-street parking in downtowns and towns centers? Is on-street parking used for larger sidewalks and pedestrian space or turned over to travel lanes for new capacity?

Conclusion

As stated in the RPA report, the arrival of autonomous automobility is inevitable. The timing is questionable and an unknown. But if I had to guess, once Stage III and IV autonomous technology enters the mass market in meaningful numbers, the shift to full-autonomy will occur faster than expected. Stage III has

arrived and over the next 3 to 5 years Stage IV will also arrive. Therefore, we are looking at (from my perspective) a 10 to 20-year window for the shift to full autonomous automobility — within the view or timeframe of comprehensive planning. As a profession aimed at preparing for the future, how many of us — how many communities — are now beginning to plan for autonomous auto mobility? At the very least, we need to have an open and evolving discussion about the future of urban space, lifestyle, and planning for this next epoch in transportation.

Dr. Poland is a planner and community strategist who focuses on assisting communities to develop strategic and scaled interventions that build community confidence, foster pride in place, create predictability in market, and grow demand. He is currently Managing Director, Urban Planning, at Goman+York.

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America's Infrastructure: Is Our Country on the Road to Ruin?

by Roger L. Kemp, PhD

he term "infrastructure" refers to the basic facilities and installations necessary for society to operate. These include public transportation and communication systems (highways, airports, bridges, telephone lines, cellular telephone towers, post offices); educational and health facilities; water, gas, and electrical systems (dams, power lines, power plants, aqueducts); and such miscellaneous facilities as prisons, national park structures, and other improvements to real property owned by higher levels of government.

In the United States, the infrastructure components are divided into the private and public sectors. Public facilities are owned by the municipal, county, state, and federal governments. There are also special district authorities, such as the Port Authority of New York and the Los Angeles Department of Water and Power, among many others.

The American Society of Civil Engineers (ASCE) — the only professional membership organization in the nation that grades our nation's public infrastructure — recognizes and evaluates the major categories of our government's infrastructure: aviation, bridges, dams, drinking water, energy, hazardous waste, inland waterways, levees, ports, parks and recreation, rail, roads, schools, solid waste, transit, and wastewater.

Managing and Financing America's Infrastructure

All levels of government are facing a new era of capital financing and infrastructure management. Revenues that once were available for capital construction, restoration, and maintenance, have either diminished or evaporated entirely in recent years. Portions of our national public infrastructure that were once adequate are now experiencing signs of distress, even decay, with no end in sight to the ongoing deterioration of our nation's public infrastructure.

Congested highways, overflowing sewers, and corroding bridges, are constant reminders of the looming infrastructure crisis that jeopardizes our nation's economic prosperity as well as the quality-of-life for our citizens. With new grades just published in 2017, the condition of our nation's infrastructure has shown little to no improvement since receiving a collective grade of a C- in 1988 and with some areas even sliding toward failing grades.

ASCE's 2017 Report Card for America's Infrastructure assesses the same categories as it did in their previous survey. The grade comparisons of the various categories of America's infrastructure between ASCE's original 1988 survey, and its most recent survey in 2017, are highlighted below in alphabetical order:

• Aviation – Received a grade of B- in 1988, and a grade of D in 2017.

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If a solution is to be forthcoming, the political posture of our government needs to become more positive and proactive.

America's Infrastructure, cont'd

- **Bridges** Received a grade of C+ in 1988, and a grade of C+ in 2017.
- Dams While not graded in 1988, they received a grade of D in 2017.
- Drinking Water Received a grade of B- in 1988, and a grade of D in 2017.
- Energy While not graded in 1988, this category received a grade of D+ in 2017.
- Hazardous Waste This category receive a grade of D in 1988 and D+ in 2017.
- Inland Waterways While not graded in 1988, they received a grade of D in 2017.
- Levees While not graded in 1988, they received a grade of D in 2017.
- Parks and Recreation While not graded in 1988, they received a grade of D+ in 2017.
- **Ports** While not graded in 1988, they received a grade of C+ in 2017.
- **Rail** While not graded in 1988, this category received a grade of B in 2017.
- Roads Received a grade of C+ in 1988, and a grade of D in 2017.
- Schools While not graded in 1988, this category received a grade of D+ in 2017.
- Solid Waste Received a grade of C- in 1988, and a grade of C+ in 2017. This is the only infrastructure category to increase its grade since the original "graded" evaluation was done nearly 30 years ago.
- Transit Received a grade of C- in 1988, and a grade of D- in 2017.
- Wastewater Received a grade of C in 1988, and a grade of D+ in 2017.

The average public infrastructure grade for our nation was a C- in 1988 and a D+ in 2017.

The most recent Infrastructure Report Card reveals that we made some incremental progress towards restoring our nation's public infrastructure. But it has not been enough! As of 2017, America's cumulative GPA is once again a D+, the same as it was four years ago after the last evaluation of our nation's infrastructure. The 2017 grades range from a B for Rail to a D- for Transit, illustrating the clear impact of our public investment — or lack thereof — in our nation's infrastructure categories.

National Leadership Is Needed

The prevailing philosophy of our national government has been to let the lower levels of government (states, counties, and cities) solve their own infrastructure problems, regardless of the nature of their complexity or the magnitude of the funds needed. If a solution is to be forthcoming, the political posture of our government needs to become more positive and proactive.

Assertive federal government leadership, like the President and the Congress, must make the difficult policy decisions, as well as approve the funding required, to solve our country's infrastructure problem. Fundamental changes are needed to redirect national priorities about how public infrastructure investments are made. Officials at all levels of government must recognize that they can no longer build public facilities without adequately maintaining them in future years.

Note:

The ASCE was founded in 1852, and is America's oldest national civil engineering society. The Society just celebrated its 165th anniversary, and has more than 150,000 members worldwide, in 177 countries.

Dr. Roger L. Kemp, PhD., has been a career city manager in CA, CT, and NJ. He has been an author, editor, and contributing author to nearly 50 books focusing on America's cities, including their public infrastructure. He is a Practitioner in Residence, Department of Public Management, University of New Haven. He can be reached at rlkbsr@snet.net.

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If you are seeking to advance your career or know an aspiring planner who might be interested in taking some courses, consider CCSU. CCSU's Geography program offers a variety of GIS, cartography, tourism, sustainability, environmental geography and regional courses. Also, if you have any opportunities for internships or projects that you could use an undergraduate student, graduate student or potential-



ly a group of student as part of an applied course learning, consider CCSU as a potential resource. Learn more: www.ccsu.edu/registrar/registration.

Following are class offerings of interest in the fall 2018:

Environmental Planning (GEOG 445)

Examines the environmental impacts of land development and natural constraints on planning and public policy decision-making. Case studies and field work will emphasize aspects of environmental planning in the Greater Hartford region. Offered on Mondays and Wednesdays from 3:05-4:20 pm. Taught by Don Poland, AICP, Ph.D., who has worked as a planning consultant in Connecticut and throughout the United States and has taught courses at CCSU, UCONN, Manchester Community College and the University of Saint Joseph.

Commuting Behavior & Parking (GEOG 483)

"I can't find a parking space!" But will increasing parking solve parking problems? Explore the parking problem through transportation and land use decisions made by planners and drivers alike. Offered on Tuesdays and Thursdays from 3:05-4:20 pm. Taught by Tim Garceau, MURP, Ph.D., who has worked as a planner at both the municipal and regional scales and whose research focuses on transportation and urban redevelopment.

Real Estate Principles & Development (GEOG 483)

A course about property rights, land use, market analysis and site selection, designed to prepare for professional employment in real estate and related fields. Offered Tuesdays from 5:55-8:35 pm. Taught by Jim Kyle, Certified General Real Estate Appraiser in Connecticut and a certified instructor of appraisal ethics, who has taught federally-mandated courses in 10 states.

For planning-related degrees, CCSU offers minors in planning and GIS, bachelor's degrees in Geography with specializations in Planning or GIS, and also a master's degree in Geography that allows for students to craft their own focus of study in terms of course selection and capstone project. CCSU still offers a GIS Certificate Program and, while not official yet, a Master's in GIS is currently under development.

For more information, contact: Timothy J. Garceau, Ph.D., Assistant Professor, Planning Specialization, Geography Department, Central Connecticut State University.



From the Bench



by Christopher J. Smith, Esquire

Sometimes Affordable Housing Denials Are Upheld

Zoning or planning applications submitted pursuant to Section 8-30g of the Connecticut General Statutes are often referred to as "Sec-



tion 8-30g applications." A Section 8-30g application is a housing proposal supported by public subsidies with affordability requirements or where, at minimum, thirty percent of the total number of the proposed residential dwellings meets certain income restrictions for at least a forty year time period.

A Section 8-30g application shifts the burden of proof, in a court appeal from a denial, from the applicant having to demonstrate that the proposal satisfies applicable zoning or planning regulations, to the commission having to demonstrate that the a denial is supported by evidence in the record that the proposal will adversely affect a substantial public interest that clearly outweighs the need for the proposed income and maximum cost-restricted dwellings, and that reasonable changes cannot be made to the proposal that will protect such public interests. Historically, a substantial majority of denials of Section 8-30g applications have not been upheld on appeal.

However, in Garden Homes Management Corp., et al. v. Westport Planning and Zoning Commission, NO LNDCV 166067291S, 2017 WL 3470742 (Conn. Super. Ct., May 25, 2017) (Berger, J.), the denial of a site plan and coastal site plan application submitted pursuant to Section 8-30g was upheld by the Court.

The Record

Garden Homes involved a proposal for 48 multi-family dwellings on a 1.16-acre parcel of land. Fifteen dwellings would be income and rent restricted. The dwellings were to be located in a five-story building. Approximately twenty percent of the parcel constitutes tidal wetlands associated with the Saugatuck River that is rated SA, which is the highest water quality rating provided by CT DEEP and permits shellfish harvesting. All stormwater runoff would be collected and directed to infiltrators upgradient from, and in close proximity to, the tidal wetlands.

The applicant's engineer testified that the proposal would not adversely impact the tidal wetlands. The commission's outside consulting engineer was found to be an expert in coastal resources and management. The commission's expert testified that the stormwater runoff, comprised of freshwater, would be concentrated to one area, and flow quickly through the soil and into the groundwater. This stormwater would "vastly change the groundwater distribution and result in concentrated discharge to the down gradient tidal wetlands." The commission's expert further opined that the introduction of this freshwater into the tidal wetlands "can alter the hydrologic, chemical, and biologic composition of the wetlands, reducing its ecosystem services," and that the application evidences "[n]o consideration of expected sea level rise and its impact on

the proposed structure or the stormwater management system..."

The commission denied the applications based on adverse impacts to three substantial public interests: (1) fire safety; (2) public safety associated with a nearby bridge crossing of the Saugatuck River; and (3) coastal resources (the tidal wetlands).

The Decision

The Court noted that only one valid reason for the denial is needed to justify the commission's action, and focused on the commission's third reason for denial: adverse impact to the tidal wetlands.

First, the Court determined that protecting tidal wetlands constitutes a substantial public interest. The Court then reviewed the testimony of the commission's expert concerning the proposal's impacts to the tidal wetlands, and held that there was sufficient evidence (applicable legal standard) in the record to establish that the proposal would adversely impact the tidal wetlands, and that this risk did not outweigh the need for the proposed fifteen incomerestricted dwellings. As to whether reasonable changes could be made to the proposal that would avoid this risk to the tidal wetlands, the Court held that it is not the commission's burden to demonstrate that reasonable changes can't be made. Furthermore, because the applicant opted not to resubmit a modified proposal within a certain timeframe after the commission's decision as provided by Section 8-30g, there was no evidence of any alternative

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From the Bench, cont.

available to address this reason for denial.

Based upon the foregoing, the Court held that the commission's denial met the requirements of Section 8-30g and dismissed the applicant's appeal.

The Court also noted that the applicant did not consent to extension requests from the commission (remember that this proposal involved site plan applications where decisions must be rendered within sixty-five days unless extensions are consented to by an applicant). Finally, the applicant did not supply additional information requested by the commission, including information concerning the stormwater management system.

Conclusion

Garden Homes involves unique facts. It's not often that tidal wetlands are at issue in a Section 8-30g proposal. However, there are two takeaways that apply to all land use applications: (1) the importance of creating a comprehensive record, especially when an appeal is anticipated; and (2) the importance of making an effort to address a commission's requests for additional time or information during the administrative review process.

Note: a petition for certification to appeal this Superior Court decision was subsequently denied by the Appellate Court.





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