



# Transportation for a **New Era**

GROWING MORE SUSTAINABLE COMMUNITIES



Urban Land  
Institute

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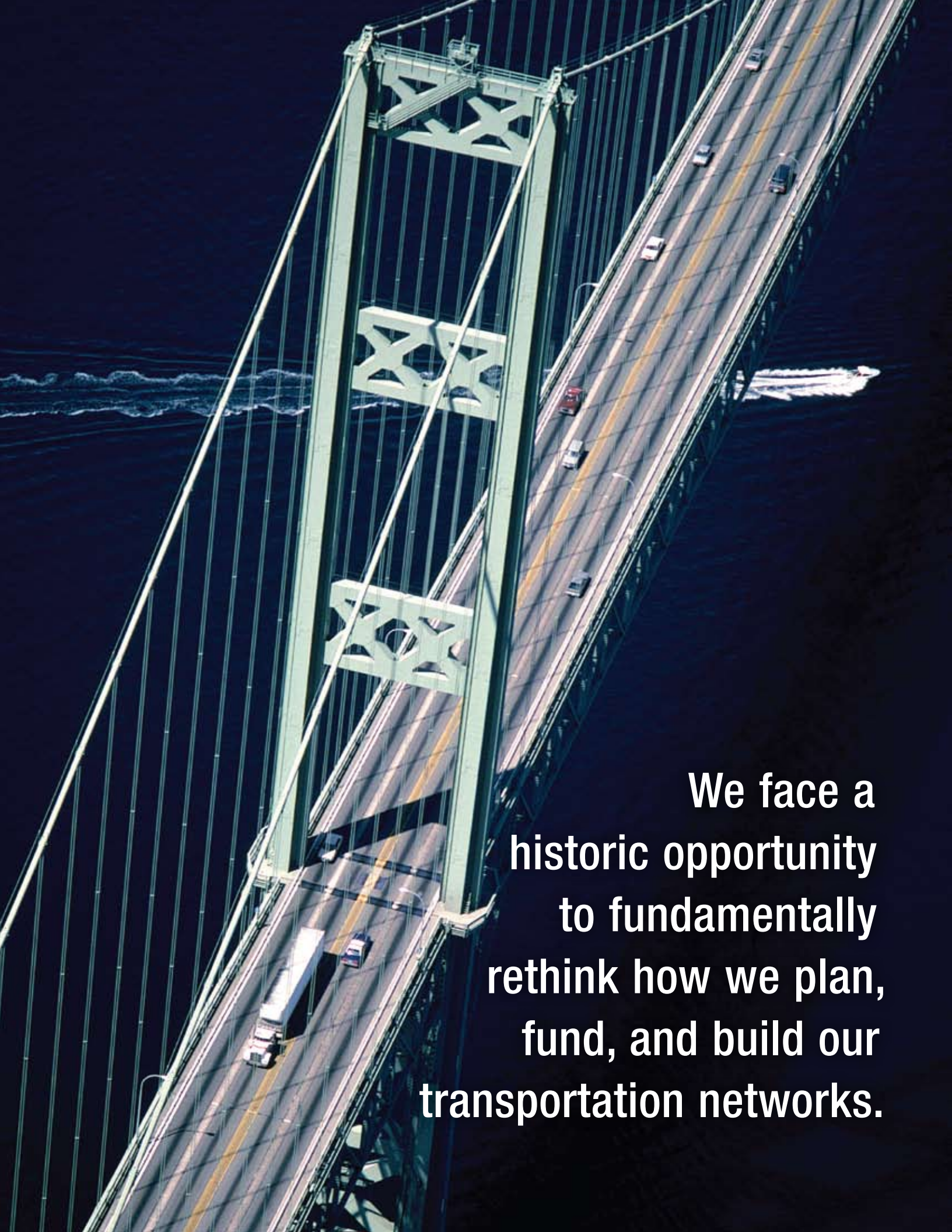
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ON THE COVER: A streetcar runs in front of the Terry Thomas building in South Lake Union, Seattle. (Gabe Hanson, Weber Thompson Architects)

# **Transportation** **for a New Era**

GROWING MORE SUSTAINABLE COMMUNITIES

JULY 2009



**We face a  
historic opportunity  
to fundamentally  
rethink how we plan,  
fund, and build our  
transportation networks.**

# Executive Summary

Transportation in America is at a pivot point. With the upcoming authorization of the next federal surface transportation bill—the current bill expires in September 2009—we face a historic opportunity to fundamentally rethink how we plan, fund, and build our transportation networks.

These choices matter; the country's economic vitality, environmental and energy sustainability, and quality of life depend heavily on the choices we make about transportation. By refocusing the federal program, making the reforms we need, and facilitating the participation of the private sector, transportation policy can set the stage for a brighter future for all Americans.

Congress, the Obama Administration, and others are working diligently to forge a path forward, and many proposals for reform are on the table. The connections among land use, infrastructure, and sustainability are being discussed like never before.

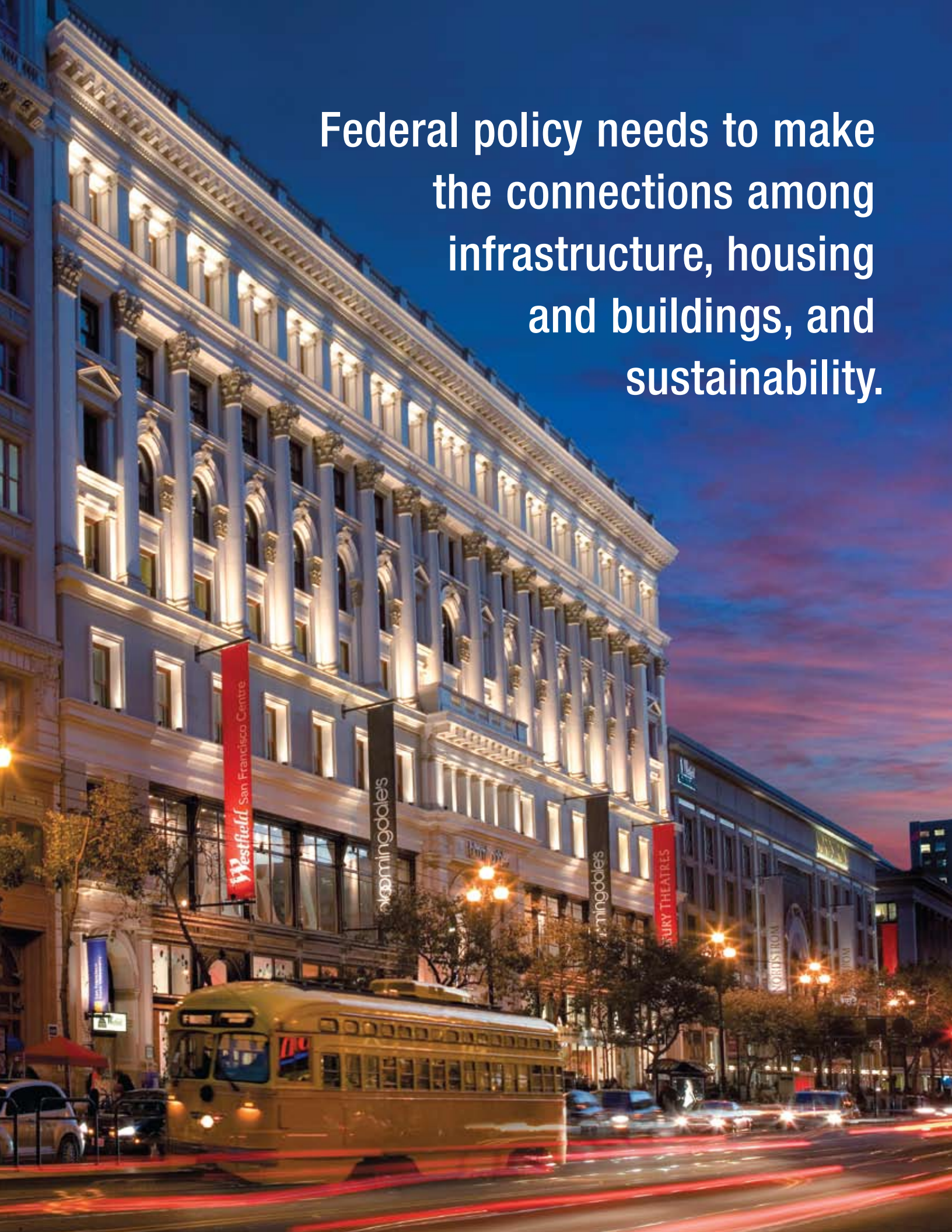
To contribute to this conversation, the Urban Land Institute, through its National Transportation Policy Dialogue, brought together leading real estate and transportation thinkers and practitioners to consider the links among real estate, development, and transportation. Several recommendations—intended to guide transportation policy and programs at the federal level—were identified:

- Create a national vision for transportation and infrastructure.
- Support the metropolitan areas that drive U.S. prosperity.
- Recognize the role of land use in linking infrastructure, housing, and sustainability.
- Foster and encourage more compact development.
- Channel funding through the “three Bs”:
  - ▷ Use **base** formula funds to maintain the system;
  - ▷ Provide a **bonus** pool to create incentives for sustainable investment; and
  - ▷ Create an independent American Infrastructure **Bank** to invest in infrastructure.

ULI is grateful for the generous support it received for the ULI National Transportation Policy Dialogue from the Rockefeller Foundation and ULI trustee James Curtis.



Federal policy needs to make  
the connections among  
infrastructure, housing  
and buildings, and  
sustainability.



# PART I

## Pivoting to a New Era

**New national leadership, ever smarter and more sophisticated technologies, growing support for rail and transit, and a population that continues to increase by tens of millions of people every decade mean that the country has an unprecedented opportunity to “pivot,” to start making better infrastructure investment decisions and achieving better outcomes.**

**How can the next surface transportation bill help the country pivot to a new era and build more sustainable communities? Some suggestions are below.**

### 1 Create a National Vision for Transportation and Infrastructure

The vast challenges we face—including economic crisis, global competition, congestion and bottlenecks, energy insecurity, and climate change—are exacerbated by years of underinvestment in our infrastructure, which has left it aging and stressed. But we also have unprecedented opportunities that should not be squandered.

Transportation forms the competitive base for the nation, but stressed and crumbling transportation infrastructure earned mostly Ds—and even D-minuses—on the American Society of Civil Engineers’ 2009 Infrastructure Report Card. Bottlenecks in moving freight at port and rail hubs dampen productivity. In the last decade, driving has stopped growing and in December 2007 started to decline.

At the same time, the tax on gasoline—the source of most government revenue for roads and transit—is in decline. Reduced driving and more fuel-efficient vehicles mean even less will be collected in the future. The country must address its transportation shortfalls by setting national goals, prioritizing the repair of existing networks, and creating a framework for making better decisions for transportation. The country must find ways not just to *spend* on transportation and infrastructure but to *invest* in it.

To guide future transportation investments and create a framework for judging success, the United States needs a national vision for infrastructure, one that is

The United States needs a national vision to confront the challenges of today and seize the opportunities of tomorrow.

Opposite: The Westfield San Francisco Centre bustles with activity. (Westfield)

Recognizing the links between urban and suburban locations, supporting the development of metropolitan areas as a whole, and devising transportation systems that work for metropolitan areas will be critical to the future of the country.

supported by measurable performance objectives. The vision should address economic competitiveness, environmental sustainability and climate change, energy independence, support of metropolitan areas, and links between infrastructure and land use. The vision should guide the activities of the federal government across agencies—not just the U.S. Department of Transportation—but also the U.S. Environmental Protection Agency, and the U.S. Department of Housing and Urban Development, and others.

Bolstered by a clear vision for future infrastructure and transportation investments, the private sector—including real estate developers—can play an important role in helping to build the communities America needs and wants. The private sector can build and finance new developments around transit stations and other transportation networks, launch partnerships to build and rebuild infrastructure, and play other helpful roles, becoming a powerful partner in efforts to create more sustainable communities.

## 2 Support the Metropolitan Areas That Drive U.S. Prosperity

To remain internationally competitive and internally productive, the country needs to rethink how to support its metropolitan areas, which are critical to the economy of the nation. The nation's 100 largest metropolitan areas are home to three-fourths of the nation's economic output, and will be the driver of our future prosperity.

The United States is still one of the fastest-growing countries in the world, and metropolitan areas will continue to attract people. The 110 million additional Americans expected by 2050 will mean that tens of millions of new housing units and tens of billions of square feet of new nonresidential development will

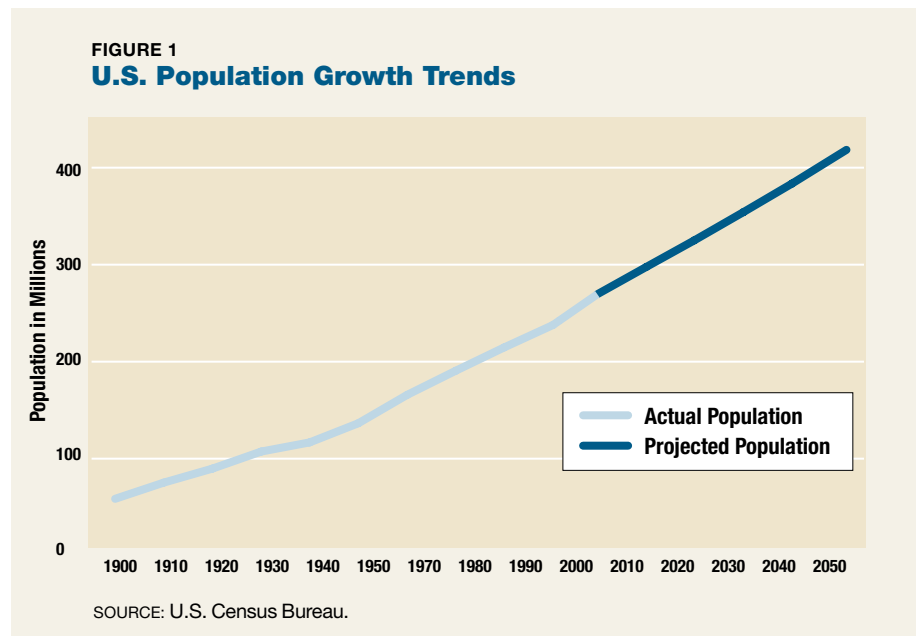
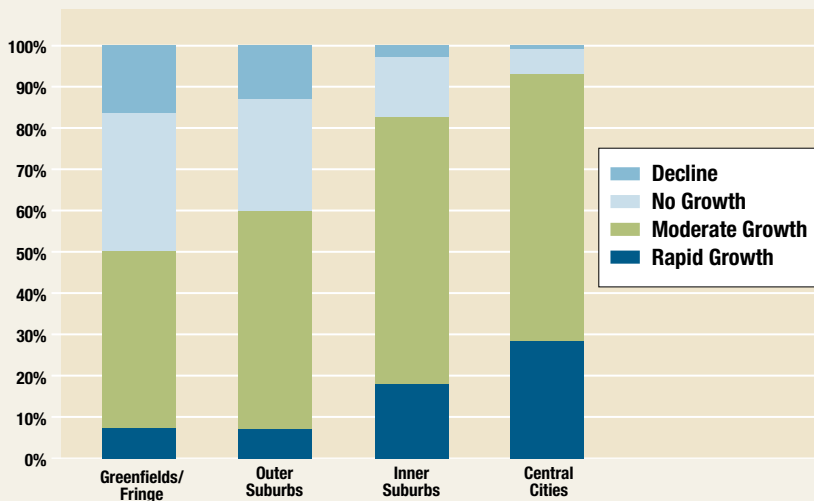




FIGURE 2

**Growth Trend Predictions by U.S. Developers in ULI Survey**



QUESTION: Please evaluate the following locations in your region for their growth potential over the next ten years.

SOURCE: ULI Member Survey, 2008.

be needed. Where development goes—and how transportation systems connect it—will help determine America’s competitive position in the world.

Where people live in metropolitan areas is changing. Central cities and inner suburbs are attracting a greater share of growth. According to the U.S. Environmental Protection Agency, between 1990 and 2007 the share of new residential construction going into central cities and inner suburbs increased relative to new construction in outer suburbs and exurbs. The most dramatic increases occurred in the last five years and continued in 2007 during the economic downturn. Developers in a recent ULI survey predicted that this urban trend will continue. Most see stronger growth potential for central cities and inner suburbs than for the suburban edge. Despite the growing vitality of urban areas, suburban locations are still home to a lot of development, and suburban and fringe areas will continue to grow.

Supporting the development of metropolitan areas means, in part, increased federal support for transit services, which can provide vital local and regional links and provide alternatives to automobile use, and also for development around transit. Federal transportation policy and funding should support increased transit service including the traditional heavy-rail systems, the newer light-rail systems, bus rapid transit, buses, and more, increasing funding availability and streamlining project reviews. Also important is support for increased development and density around existing or new transit, funding land acquisition, public parking, and sidewalks and pedestrian amenities. Infrastructure investments in metropolitan areas can be complicated and time-consuming to do; streamlining and speeding up the planning and construction timelines for projects in metropolitan areas will be key.



The new light-rail line in Phoenix, Arizona, can accommodate up to 12,000 passengers per hour, the same as a six-lane highway. (Valley METRO)

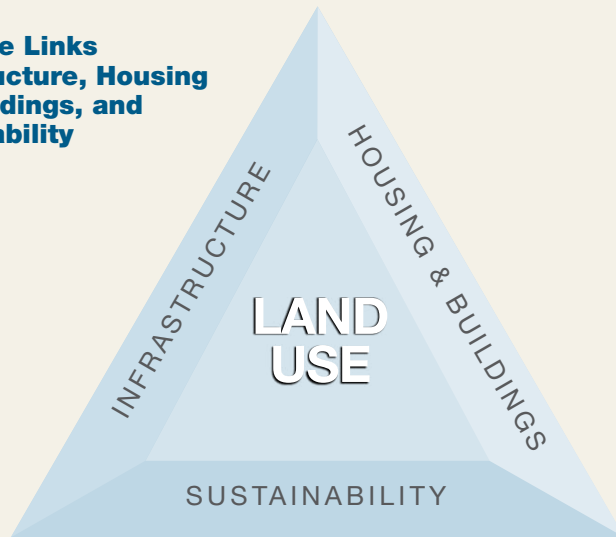
Federal policy needs to make the connections among infrastructure, housing and buildings, and sustainability. Land use is the arena in which these drivers intersect.

### 3 Recognize the Role of Land Use in Linking Infrastructure, Housing, and Sustainability

Land use shapes transportation, which in turn shapes land use. Their reciprocal relationship is a truism of the development process. Transportation policy is, in part, land use policy. And land use patterns affect energy consumption and greenhouse gas emissions.

Ignoring these connections is like using only one hand to tackle the task of creating cleaner, more productive communities. The solution is a more holistic

**FIGURE 3**  
**Land Use Links**  
**Infrastructure, Housing**  
**and Buildings, and**  
**Sustainability**



#### **FEDERAL PARTNERSHIP FOR SUSTAINABLE COMMUNITIES**

The U.S. Department of Housing and Urban Development, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency announced a landmark agreement in June 2009 to help Americans gain access to affordable housing, more transportation options, and lower transportation costs.

The agencies jointly adopted six “livability” principles to guide agency actions:

- Provide more transportation choices.
- Promote equitable, affordable housing.
- Enhance economic competitiveness.
- Support existing communities.
- Coordinate policies and leverage investment.
- Value communities and neighborhoods.

The new federal initiative represents a promising start to creating a more integrated approach to infrastructure, housing, and sustainability.

approach, one that integrates infrastructure, housing and buildings, and sustainability with land use.

While land use is, by and large, a local responsibility conducted under state laws, the federal government should help Americans harness the cycle of land use and transportation to national goals. Because land use is integral to climate change and energy consumption, the federal government should provide support for more sustainable land use patterns, and create incentives for more responsible land use.

## 4 Foster and Encourage More Compact Development

The more that housing, jobs, and services spread out, the harder it becomes to access them without an automobile. Only with more compact development and more transportation options—rapid transit and walkable designs—is it feasible to achieve national goals for economic productivity and environmental sustainability.

What's more, Americans increasingly demand more compact product types. Consumer preference surveys and studies of housing values show that there is

The federal government should provide incentives and reward decisions that result in more compact development.

### WHAT IS COMPACT DEVELOPMENT?

Compact development is neighborhoods or employment centers with most or all of the following:

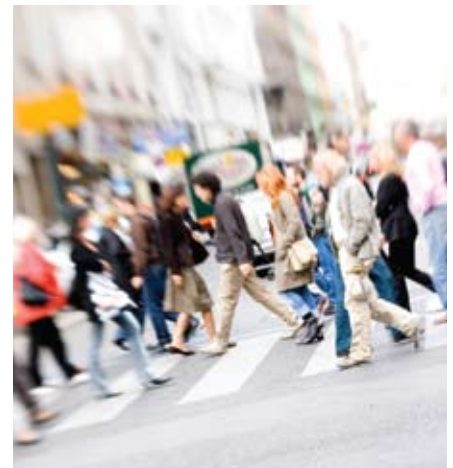
- Concentrations of population and/or employment.
- Medium to high densities appropriate to the context.
- A mix of uses.
- Interconnected streets.
- Creative approaches to parking.
- Pedestrian-, bicycle-, and transit-friendly design.
- Access and proximity to transit.

### COMPACT DEVELOPMENT AND HOUSEHOLD TRIPS

Improving energy security and environmental sustainability requires looking beyond peak-hour congestion and infrastructure-only solutions.

Because less than 25 percent of household trips are work-home commuting trips, reducing the number of vehicle trips and miles traveled—key to reducing greenhouse gas emissions and oil consumption—means addressing the other 75 percent of trips. It means thinking holistically about trips throughout an entire day, week, and year.

Compact development is an important part of the energy and environment equation.

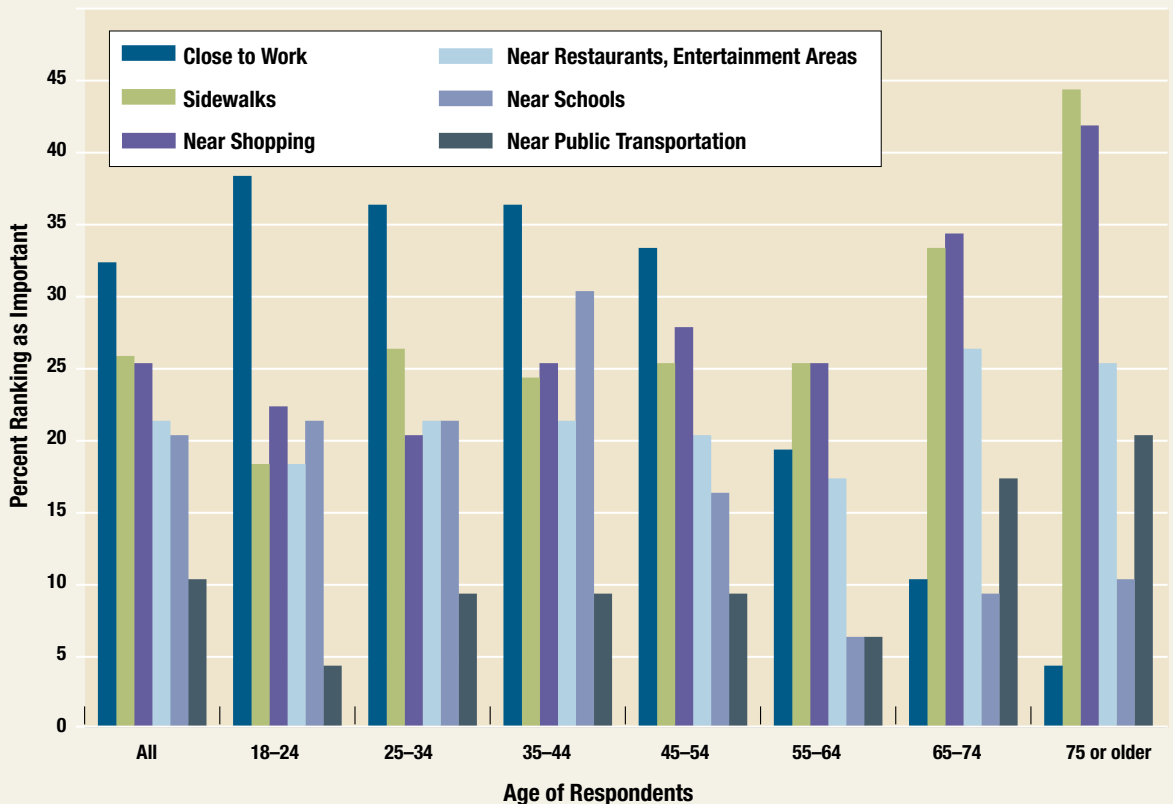


an unmet demand for walkable neighborhoods. Transit use is up and voters have repeatedly approved referendums raising taxes or approving bond issues for expanded rapid transit service. But the supply of affordable compact, mixed-use, transit-oriented development products has not kept pace.

Studies show that compact development results in fewer miles traveled, reducing fuel consumption and emissions. In areas where housing, employment, shopping, or services are close by—even in low-density places without high-quality transit service—people walk more. Compact development can reduce the cost of public infrastructure and encourage healthy habits such as incorporating walking and biking into daily routines. With transportation options, families save. Each automobile a household maintains costs it, annually, between \$5,500 for a small sedan driven 10,000 miles a year to nearly \$12,000 for an SUV driven 20,000 miles a year.

The compact development model can be adapted to urban, suburban, and rural contexts. New communities can develop in more compact ways, and many existing suburban areas are ready to be revamped into a more concentrated, walkable, and mixed-use “village” form. However, in many communities, development around transit and other likely locations is stymied by zoning restrictions and parking requirements.

**FIGURE 4**  
**Neighborhood Features Valued by Home Searchers**



SOURCE: National Association of Realtors, Profile of Buyers’ Home Feature Preferences, 2007.

## ATLANTA REGIONAL COMMISSION'S LIVABLE CENTERS INITIATIVE

The Livable Centers Initiative, a program offered by the Atlanta Regional Commission, encourages local jurisdictions to “plan and implement strategies that link transportation improvements with land use development strategies to create sustainable, livable communities.”

The program encourages mass transit-oriented, pedestrian-friendly, mixed-income residential development, as well as mixed-use developments with improved connectivity at the activity and town center level. Overarching goals include achieving more balanced regional development, reducing vehicle miles traveled, and improving air quality.

The program was created in 1999. To date, it has allocated more than \$135 million to 86 areas in the region, spurring the development of hundreds of projects and adoption of more livable zoning and design policies, including affordable housing and senior housing policies, and new design guidelines.



Rockville, Maryland, is reconfiguring low-density strip development into walkable, mixed-use suburban villages. (City of Rockville, Maryland/ ACP Visioning and Planning)

Federal support for locally driven parking and zoning reform would go a long way. Without mandating any particular solution, federal grants should be available to fund technical assistance and promote changes to existing zoning codes to allow for more compact, transit-oriented development. Through federal incentive and support programs, communities should be encouraged to innovate around parking—including creating shared parking, and removing or limiting accessory parking regulations.

Communities should also be encouraged to follow the lead of metropolitan areas with “livable communities” programs. These programs provide incentives for more compact, pedestrian-friendly, transit-oriented, mixed-use development, and reduce driving at the same time. Their success should be touted as national models for federal promotion.



Federal transportation funding should be channeled through three mechanisms—base, bonus, and bank.

# Channeling Funding Through “the Three Bs”

## PART II

Revenue-raising strategies should be carefully designed both to generate the money needed and to promote the objectives described above. On the expenditure side, federal transportation funding should be channeled through three mechanisms—base, bonus, and bank—which are described in more detail below.

### 1 Use Base Formula Funds to Maintain the System

Base formula funds should be the primary funding source for system maintenance and preservation. Accounting for approximately 75 percent of total federal transportation funding, the base formula funds should be distributed to states, metropolitan regions, and localities on a mode-neutral basis (that is, all eligible projects should receive the same federal match).

Base formula funds should focus on providing adequate levels of safety and service to all. The primary use of the federal base formula funds should be to “fix it first”: funds should flow for use predominantly on repair and maintenance of existing transit and highway programs. The federal match for major capacity expansions of

Base formula funds—modified to reward reduced driving per capita and other goals—should fund system maintenance and preservation.



both transit and road networks should be paid for out of the bonus funds program described below.

The formula used to distribute the funds should be shifted away from the current metrics used in the federal funding formulas, which are based on population and vehicle miles traveled. Instead, they should be modified to reward reduced driving per capita, promote the effective use of transit, and achieve other economic and environmental goals.

## 2 Provide a Bonus Pool to Create Incentives for Sustainable Investment

A competitive bonus program should fund capacity additions and create incentives for planning, regulatory, and land development innovations.

A new bonus funds program should be created to turn policy goals into workable projects on the ground. Accounting for a significant portion of total funding for new transportation—25 percent—the program should distribute grant funds on a competitive basis. Major new capacity additions for road and transit should flow through this program. The bonus pool should also support planning, regulatory, and land development innovations that advance federal goals.

Fostering more compact land use and creating a stronger linkage between land use and infrastructure should be the key criteria for receiving funds from this program. In particular, criteria should be developed to identify and select projects

### **TIGER: AN INNOVATIVE TRANSPORTATION GRANTS PROGRAM**

The American Recovery and Investment Act of 2009 created a new program within the U.S. Department of Transportation, the TIGER Discretionary Grants Program, worth \$1.5 billion. TIGER distributes competitive grants of \$20 million to \$300 million for projects that meet certain criteria, including job creation, economic stimulus, innovation, and partnership. Projects must also achieve the following “long-term outcomes,” promoting:

- State of good repair for existing infrastructure.
- Economic competitiveness and long-term employment and productivity.
- Livability, which is defined as “whether a project improves the quality of the living and working environment of a community,” and provides “convenient transportation options,” including walking and biking infrastructure, and coordinated transportation and land use plans.
- Sustainability in energy, greenhouse gas emissions, and the natural environment.
- Safety.

As a discretionary grant program with significant resources devoted to livability and sustainability and distributed without regard to mode, the TIGER program provides a model for an expanded bonus pool program.



that will achieve compact development, increase transit services and development around transit, encourage parking and zoning reform, and further the other policy objectives described above. Projects with significant private sector involvement and investment commitments, as well as local involvement, should be rewarded.

### **3 Create an Independent American Infrastructure Bank to Invest in Infrastructure**

A new American Infrastructure Bank (AIB) should be created as an independent public institution to fund infrastructure projects—for transport, water, energy, and more—in pursuit of the nation’s economic, environmental, and social goals. Structured as a public, independent nonprofit financial institution, the AIB’s broad goals and lending criteria should be established by its mandate and board of governors, with lending decisions made by professional bank staff using sound financial underwriting standards. By defining project criteria and creating loan packages with a variety of length and interest rate terms, the bank will help foster an investment-oriented approach to U.S. infrastructure.

Lending funds to public or private entities for investments in U.S. infrastructure, the bank will be an important source of long-term capital for projects whose returns are realized over many years, such as airports, ports, high-speed rail, major bridges, and new roads and highways. The AIB could be funded and capitalized with a stream of revenue from fuel taxes, general revenue funds, bonds, or some combination of these and other sources. The AIB should prioritize projects that have substantial commitments from other parties, including the private sector, and are leveraged by user revenues.

The bank will also be a vehicle for leveraging the investment of private capital into our nation’s public infrastructure—a potentially significant source of capital for infrastructure that currently has few good channels.

A new American Infrastructure Bank can help catalyze public and private investment in infrastructure and become an important source of long-term capital for critical transport, water, and energy projects.

#### **THE EUROPEAN INVESTMENT BANK**

The European Investment Bank (EIB) was established in 1958 by European countries still reeling from the aftereffects of World War II. Today, it is the world’s largest public financial institution, dispersing about \$64 billion in loans every year.

The EIB is owned by European Union (EU) members and its funding supports EU priorities, including economic and social cohesion, improving mobility and connectivity, and reducing carbon emissions.

Project investments are typically capped at 50 percent of total project costs, with loan terms determined by the project’s risk profile. The bank has also been instrumental in furthering and supporting public/private partnerships across the continent. In its 51 years, the EIB has lost money on only a few projects.

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## **ABOUT THE ULI NATIONAL TRANSPORTATION POLICY DIALOGUE**

Transportation is critical to the vitality of the U.S. economy and the real estate industry. Through the ULI National Transportation Policy Dialogue, ULI is engaging leaders from the real estate and transportation fields to discuss pressing transportation challenges and identify a common set of goals and principles for transportation policy reform. The Dialogue consists of a series of workshops and events, articles and publications, and other activities centered around the pressing transportation issues facing the country.

## **ABOUT ULI**

The Urban Land Institute ([www.uli.org](http://www.uli.org)) is a nonprofit education and research institute supported by its members. Its mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI's prestigious membership consists of the land use industry's foremost professionals around the globe. Established in 1936, the Institute facilitates the open exchange of ideas, information, and experience among local, national, and international industry leaders and policy makers dedicated to creating better places.



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With the upcoming authorization of the next federal surface transportation bill, the United States has the historic opportunity to fundamentally rethink how we plan, fund, and build the country's transportation system.

**Transportation for a New Era: Growing More Sustainable Communities** lays out several recommendations for transportation policy and programs at the federal level:

- Create a national vision for transportation and infrastructure.
- Support the metropolitan areas that drive U.S. prosperity.
- Recognize the role of land use in linking infrastructure, housing, and sustainability.
- Foster and encourage more compact development.
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