



# How Transportation Investments Can Build Healthier Places

Rachel MacCleery, Urban Land Institute



LAI Baltimore

January 18, 2017

**ULI** Urban Land  
Institute  
Building Healthy  
Places Initiative



# Urban Land Institute

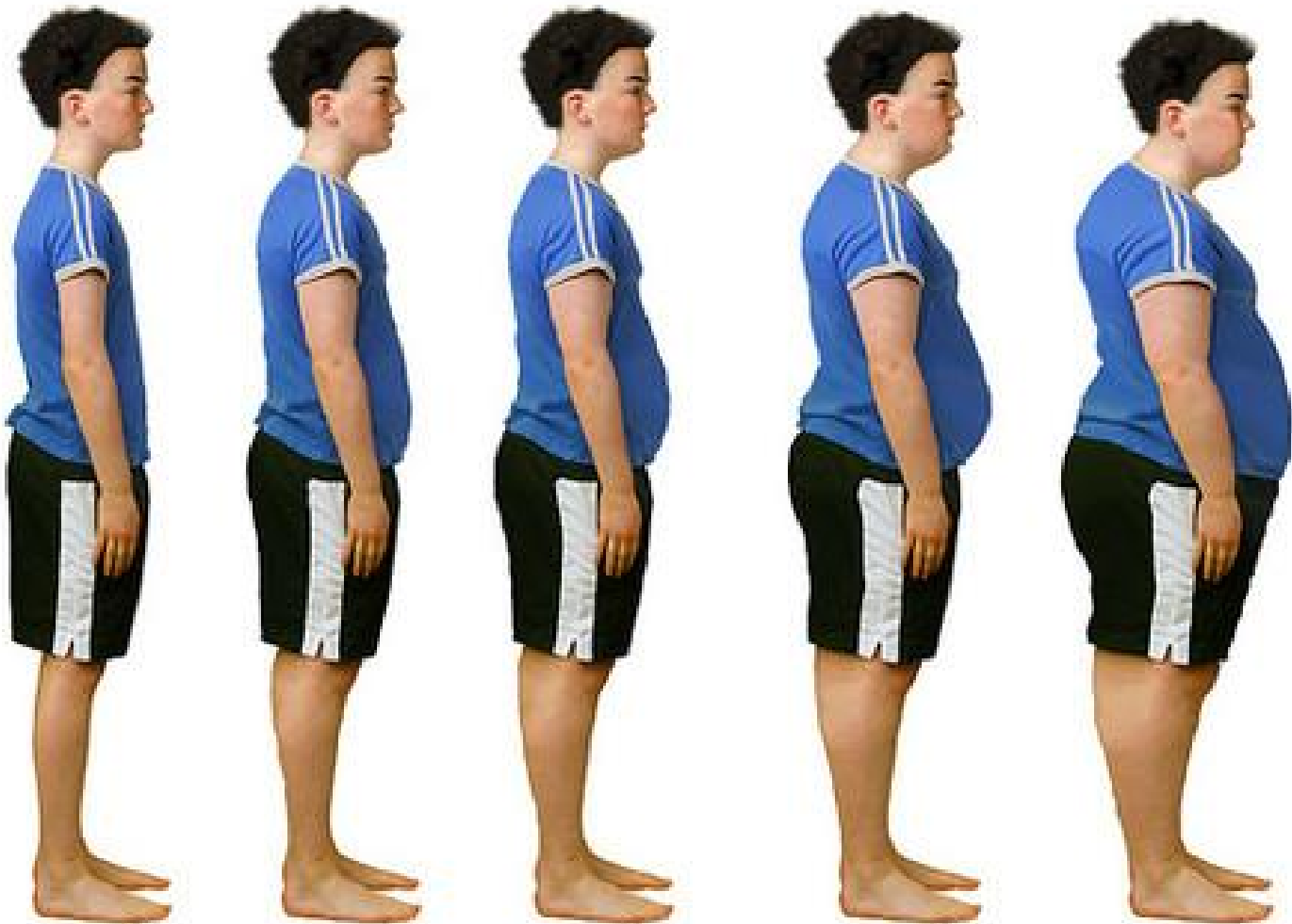
Research and education non profit dedicated to promoting best practices in real estate and land use.

Mission to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.

40,000 members –  
real estate and land use professionals  
50 U.S. District Councils  
50+ Product Councils

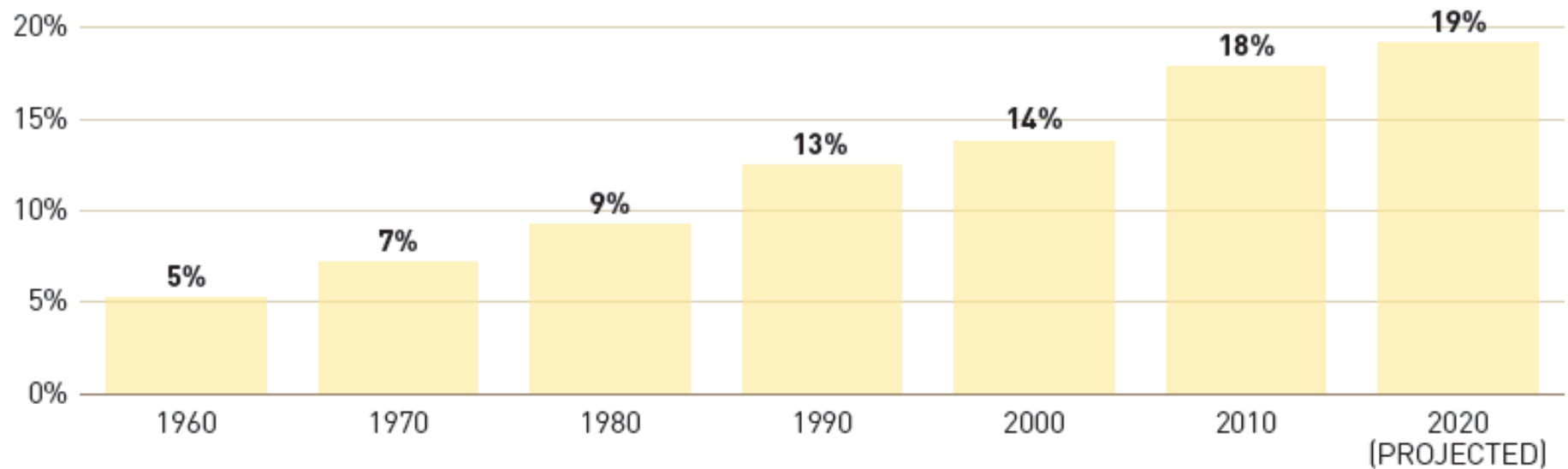
International Councils in Europe and Asia

# Why does health matter?





# Health Care Spending as % of GDP









# ULI Building Healthy Places Initiative

Leveraging the power of ULI's global networks to shape projects and places in ways that improve the health of people and communities.



## Goals

- Raise awareness
- Define the approach
- Explore the value proposition
- Advance the state of practice and policy



# ULI Building Healthy Places Initiative

The Building Healthy Places Initiative advances the ULI mission and promotes **healthy, thriving communities** by **engaging, informing, and inspiring** ULI members.

ULI members and all land use professionals can promote health:

- Through their **organizations**
- Through their **investment** and project **decisions**
- Through their influence in **communities**



# BHP PARTNERS & FUNDERS



The Colorado Health Foundation™

THE KRESGE FOUNDATION

Expanding opportunities in America's cities



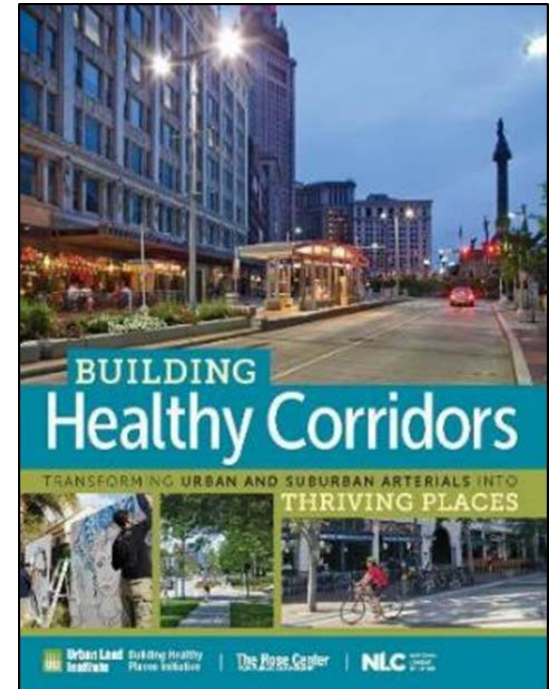
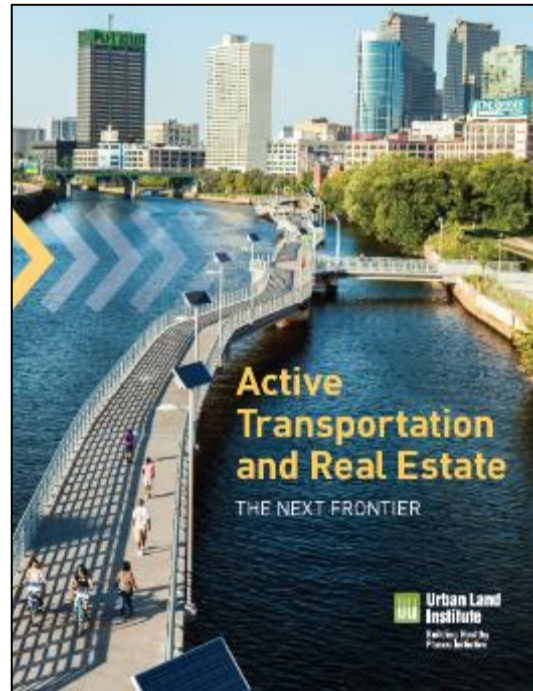
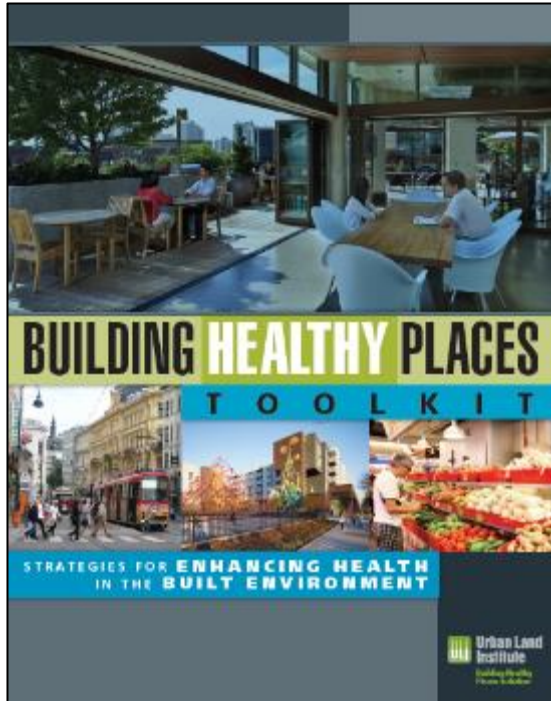
Robert Wood Johnson Foundation

Mr. Randall Lewis  
ULI Trustee





# Healthy Transport



[uli.org/health](http://uli.org/health)



# BUILDING HEALTHY PLACES

## T O O L K I T



STRATEGIES FOR ENHANCING HEALTH  
IN THE BUILT ENVIRONMENT

**ULI** Urban Land  
Institute  
Building Healthy  
Places Initiative





## PHYSICAL ACTIVITY

Mueller  
Austin, TX



## HEALTHY FOOD AND DRINKING WATER

Pinehills  
Plymouth, MA



## HEALTHY ENVIRONMENT AND SOCIAL WELL-BEING

Hercules Campus  
Playa Vista, CA

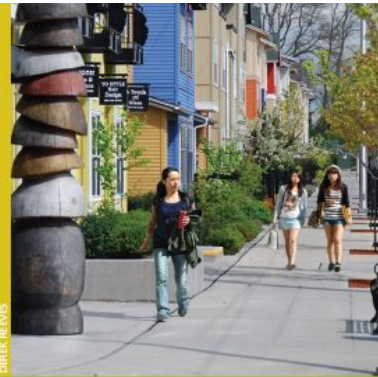


# PHYSICAL ACTIVITY

- 1 Incorporate a mix of land uses
- 2 Design well-connected street networks at the human scale
- 3 Provide sidewalks and enticing, pedestrian-oriented streetscapes



- 4 Provide infrastructure to support biking
- 5 Design visible, enticing stairs to encourage everyday use
- 6 Install stair prompts and signage



- 7 Provide high-quality spaces for multigenerational play and recreation
- 8 Build play spaces for children

# HEALTHY FOOD AND DRINKING WATER

- 9 Accommodate a grocery store
- 10 Host a farmers market
- 11 Promote healthy food retail



- 12 Support on-site gardening and farming
- 13 Enhance access to drinking water



# HEALTHY ENVIRONMENT AND SOCIAL WELL-BEING

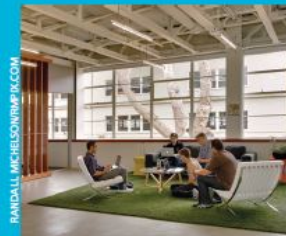
- 14 Ban smoking
- 15 Use materials and products that support healthy indoor air quality
- 16 Facilitate proper ventilation and airflow



- 17 Maximize indoor lighting quality
- 18 Minimize noise pollution
- 19 Increase access to nature



- 20 Facilitate social engagement
- 21 Adopt pet-friendly policies







# PHYSICAL ACTIVITY

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6. Install stair prompts and signage
7. Provide high-quality spaces for multi-generational play and recreation
8. Build play spaces for children

Only one in five U.S. adults gets enough physical activity.

“Sitting is the new smoking”



**Harper Court**  
Chicago, IL

# 1

## INCORPORATE A MIX OF LAND USES

### STRATEGIES ▼

- ➔ Provide a mix of uses in new projects, such as residential, retail, office, recreation, and community facilities.
- ➔ Provide retail and service uses on the ground floor.



## 2

## DESIGN WELL-CONNECTED STREET NETWORKS AT THE HUMAN SCALE

### STRATEGIES ▼

- ➔ Design the street network with the pedestrian in mind.
- ➔ Favor shorter blocks with multiple intersections.
- ➔ Establish pedestrian paths.

**West Village Apartments**  
Davis, CA







### 3

## PROVIDE SIDEWALKS AND ENTICING, PEDESTRIAN-ORIENTED STREETSCAPES

### STRATEGIES ▼

- ➔ Build sidewalks in all new communities.
- ➔ Include well-marked crosswalks, special pavers, and curb extensions.
- ➔ Provide amenities to turn sidewalks into appealing spaces.
- ➔ Light streets, trails and public spaces to minimize dark and unsafe areas.





**Mueller**  
Austin, TX

## 4

## PROVIDE INFRASTRUCTURE TO SUPPORT BIKING

### STRATEGIES ▼

- ➔ Where possible, provide bikeways within the street network.
- ➔ Maximize connections to existing bicycle networks.
- ➔ Provide secure indoor bicycle parking.
- ➔ Set up a bike share program for residents or tenants.



**Teaching Center**  
Vienna, Austria

## 5

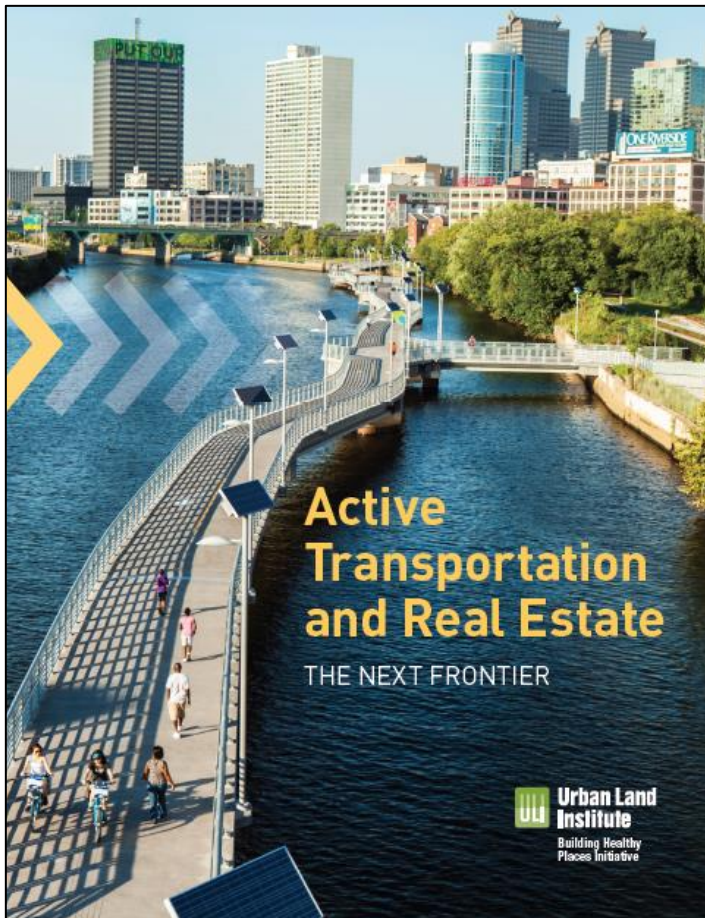
## DESIGN VISIBLE, ENTICING STAIRS TO ENCOURAGE EVERYDAY USE

### STRATEGIES ▼

- ➔ Provide open stairs that are unobstructed by turns or other obstacles.
- ➔ Use aesthetic treatments such as vivid colors, artwork, and music.
- ➔ Provide keys or access cards so building users have secure access.



# ACTIVE TRANSPORTATION AND REAL ESTATE



1 Is **trail-oriented development** the new “TOD”?

2 How is **human-powered transportation** changing the practice of real estate?

3 Trends & Case Studies with a focus on:

- **10** development projects
- **5** catalytic infrastructure projects
- **Market** and **policy** trends in Active T

# ACTIVE TRANSPORTATION: AN IMPORTANT TREND

- ➔ 50% of U.S. residents say that walkability is a top priority or a high priority when considering where to live
- ➔ Bicycling is the fastest-growing form of transportation for commuters in the United States.
- ➔ The number of local bicycle trips has increased by more than 40% since the 1990s in Amsterdam.







## TRAIL-ORIENTED DEVELOPMENT

- ➔ The value of properties within a block of the Indianapolis Cultural Trail has risen 148% since its opening in 2008
- ➔ More than \$750 million worth of new housing has been built along its Minneapolis' Midtown Greenway
- ➔ Homes in Montreal's Bixi bike share system coverage area are valued an average of CA\$8,650 (US\$6,123) more than those outside of the area.



# PROFILED DEVELOPMENT PROFILES

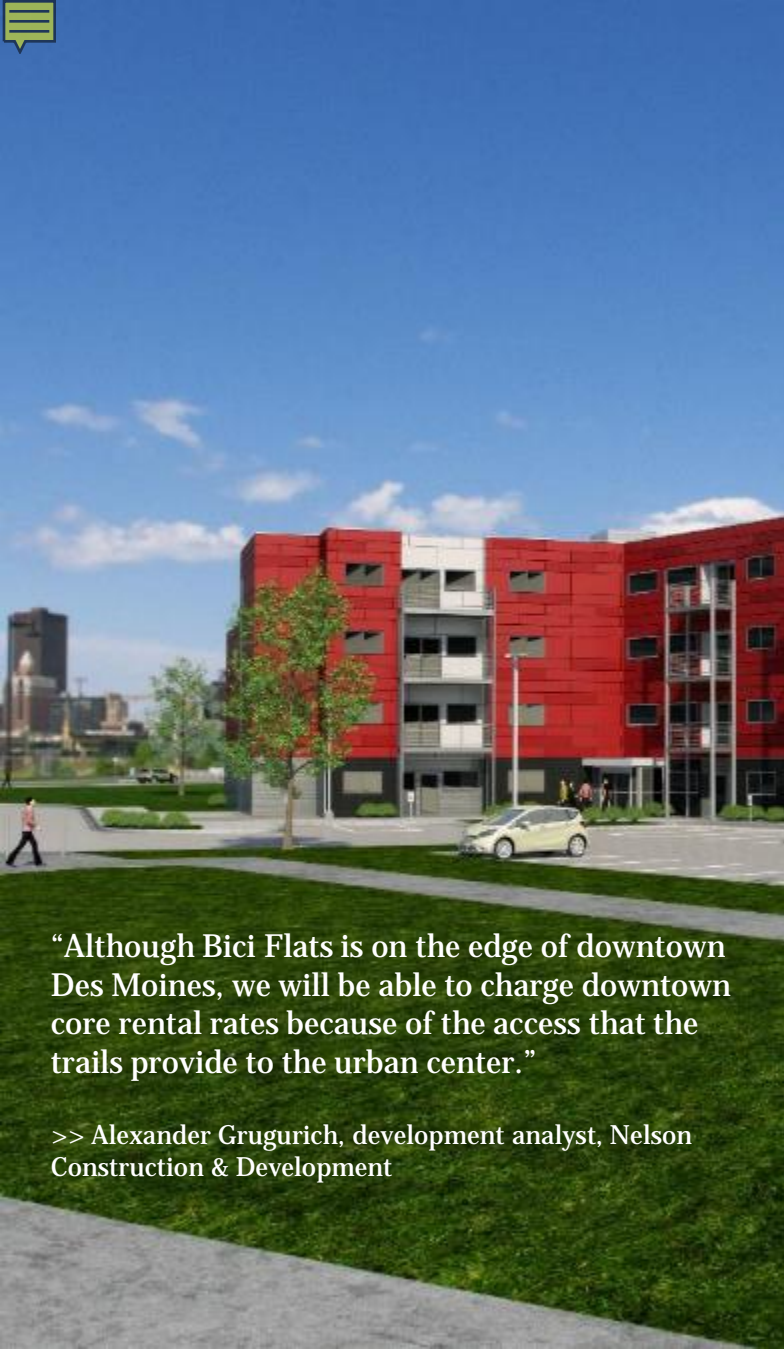
- ➔ **Bici Flats:** Des Moines, Iowa
- ➔ **Circa:** Indianapolis, Indiana
- ➔ **Flats at Bethesda Avenue:** Bethesda, Maryland
- ➔ **Gotham West:** New York, New York
- ➔ **Hassalo on Eighth:** Portland, Oregon
- ➔ **MoZaic:** Minneapolis, Minnesota
- ➔ **Ponce City Market:** Atlanta, Georgia
- ➔ **Silver Moon Lodge:** Albuquerque, New Mexico
- ➔ **250 City Road:** London, United Kingdom
- ➔ **Westwood Residences:** Singapore

# KEY ACTIVE TRANSPORTATION DEVELOPMENT FEATURES

- ➔ Dedicated bicycle storage areas
  - ➔ Extra wide hallways or bike elevators
  - ➔ Bicycle workrooms
  - ➔ Bike washing stations
  - ➔ Bike valet service
  - ➔ Showers and locker facilities
  - ➔ Bicycle parts or mechanic available on-site
  - ➔ On-site bike rentals or bike share service
  - ➔ Bicycle park and ride
- Investments in public active transportation infrastructure







“Although Bici Flats is on the edge of downtown Des Moines, we will be able to charge downtown core rental rates because of the access that the trails provide to the urban center.”

>> Alexander Grugurich, development analyst, Nelson Construction & Development

# BICI FLATS

DES MOINES, IOWA

**Developer:**

Nelson Construction & Development

**Project Type:**

Multifamily

**Building Size:**

154 units; 160,000 square feet (14,900 sq m)

## ACTIVE-TRANSPORTATION-FRIENDLY FEATURES ▼

- ➔ **Bicycle storage room**
- ➔ **In-unit bicycle storage**
- ➔ **Wide hallways**
- ➔ **Bike workroom**
- ➔ **Bike washing station**





“The Indianapolis Cultural Trail adds tremendous value to Circa and has been the most transformative infrastructure investment in downtown Indianapolis in the last five to ten years.”

>> Jake D. Dietrich, director of development, Milhaus

# CIRCA

INDIANAPOLIS, IN

**Developer:**  
Milhaus

**Project Type:**  
Multifamily

**Building Size:**  
265 units; 295,000 square feet (27,400 sq m) across six buildings

## ACTIVE-TRANSPORTATION-FRIENDLY FEATURES ▼

- ➔ **Bicycle storage**
- ➔ **Complimentary bike-share service**
- ➔ **Bike workroom/Maker's Room**
- ➔ **Bike washing station**



# HASSALO ON EIGHTH

PORTLAND, OR

**Developer:**  
American Assets Trust

**Project Type:**  
Mixed-use

**Building Size:**  
657 residential units; 58,100  
gross square feet (5,400 sq  
m) of retail, and 271,600  
gross square feet (25,200 sq  
m) of office space

## ACTIVE-TRANSPORTATION-FRIENDLY FEATURES ▼

- ➔ **North America's largest bike parking facility**
- ➔ **On-site bike valet service**
- ➔ **Bike workroom**
- ➔ **Bike washing area**
- ➔ **Vending machines for replacements bike parts**
- ➔ **Shower and locker room facilities**

"We feel many of our residents will choose to live here because they do not own a car."

>> Wade W. Lange, vice president, regional manager,  
Portland, American Assets Trust





“The Greenway is a critical amenity for MoZaic. We find our tenants love the ease and accessibility it provides.”

>> Stuart Ackerberg, CEO, Ackerberg Group

# MOZAIC

MINNEAPOLIS, MN

**Developer:**  
Ackerberg Group

**Project Type:**  
Mixed-use

**Building Size:**  
77,000 square feet (7,200 sq m); 200,000 square feet (18,600 sq m) in new phase

## ACTIVE-TRANSPORTATION-FRIENDLY FEATURES ▼

- ➔ **Pedestrian and bicyclist bridge and ramp**
- ➔ **Bicycle storage**
- ➔ **Locker room with showers**

“The demand for secure cycle parking will only increase in the coming years, so ‘overprovision’ seems sensible and will futureproof the development.”

>> Christopher Abel, development director, Berkeley Group



# 250 City Road

LONDON, UK

**Developer:**  
Berkeley Group Holdings

**Project Type:**  
Mixed-use

**Building Size:**  
1.4 million square feet  
(130,000 sq m); 930  
residential units; 190-room  
hotel, office space, retail, data  
center

## ACTIVE-TRANSPORTATION-FRIENDLY FEATURES ▼

- ➔ **Bike storage**
- ➔ **Bicycle elevators**
- ➔ **Bike workrooms**
- ➔ **Public bike-share station**
- ➔ **Investments in on-road safety**



# PROFILED CATALYTIC BICYCLE AND PEDESTRIAN INFRASTRUCTURE PROJECTS

- ➔ **The Circuit Trails:** Greater Philadelphia, PA
- ➔ **Cycle Superhighways :** Copenhagen, Denmark
- ➔ **Cycle Superhighways:** London, United Kingdom
- ➔ **Midtown Greenway:** Minneapolis, MN
- ➔ **Bicycle Sharing:** Paris, France; Montreal, Canada; Hangzhou, China





# The Circuit Trails

GREATER  
PHILADELPHIA, PA

**Project type:**  
Off-road trails

**Usage:**  
Up to 1 million pedestrians and bicyclists annually

**Length:**  
Planned 750 miles (1,200 km); 300 miles (483 km) currently complete

**Cost:**  
Varies, depending on trail alignments, location, infrastructure

## DEVELOPMENT, QUALITY OF LIFE AND ECONOMIC IMPACTS ▼

- ➔ **Schuylkill River Trail generated \$7.3 million in direct economic impact along its route in 2009**
- ➔ **Properties within a quarter-mile (0.4 km) of the Radnor Trail in Radnor, PA were valued on average \$69,000 higher than other area properties**





# Midtown Greenway

MINNEAPOLIS, MN

**Project type:**

Rail trail

**Usage:**

Up to 5,460 bicyclists daily

**Length:**

5.5 miles (8.8 km)

**Cost:**

\$36 million

## DEVELOPMENT, QUALITY OF LIFE AND ECONOMIC IMPACTS ▼

- ➔ **At least 11 separate projects were developed along the Midtown Greenway between 2004 and 2014.**
- ➔ **Property values along the corridor have increased by over 90% in the past ten years.**



(Copenhagen Cycle Superhighways)

# Cycle Superhighways

COPENHAGEN, DENMARK

## Project type:

Connected regional bicycle paths

## Usage:

Up to 3,973 users per weekday at Hareskovvej on the Farum route; up to 3,437 users per weekday at Finsensvej on the Albertslund route

## Length:

Planned total 311-mile (500 km) network

## Cost:

Total cost of DKK413 million (US\$59.9 million) to DKK875 million (US\$127 million)

## DEVELOPMENT, QUALITY OF LIFE AND ECONOMIC IMPACTS ▼

- ➔ **Expected economic return from completed cycle superhighway network of 19 percent**
- ➔ **Associated increases in physical activity estimated to lead to 34,000 fewer sick days per year and a \$60 million reduction in health care costs**

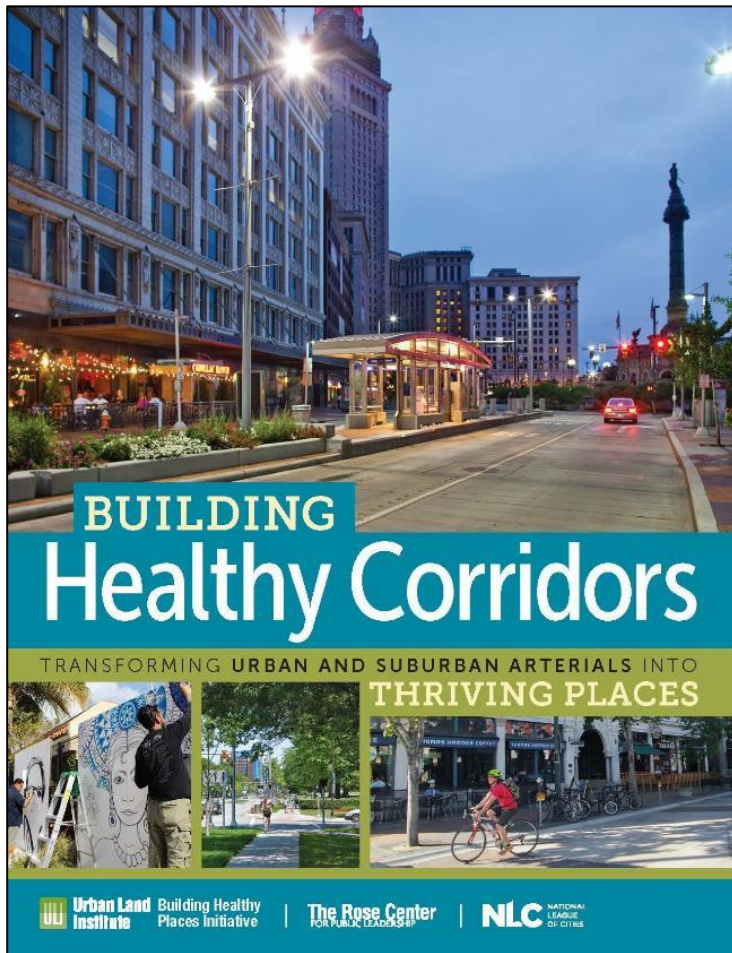


# SHARED THEMES AMONG CATALYTIC BICYCLE AND PEDESTRIAN PROJECTS

- ➔ Active transportation infrastructure can **catalyze real estate development**.
- ➔ Investments in trails, bike lanes, and bicycle-sharing systems have **high levels of return on investment**.
- ➔ There is evidence of a **correlation** between access to **active transportation facilities** and **increased property values**.
- ➔ A **reciprocal relationship** exists between the **private** and **public sectors** in terms of **maximizing investments** in active transportation.



# HEALTHY CORRIDORS



1 Defines **strategies** and **tools** for transforming underperforming commercial corridors into **thriving places** for those who live, work and travel along them.

2 Report features Trends & Case Studies with a focus on:

- 4 Demonstration Corridors
- 10 Principles for Healthy Corridors
- 6 Project Profiles
- **Audit Tool**
- **Strategy & Resource Guide**

[uli.org/healthycorridors](http://uli.org/healthycorridors)

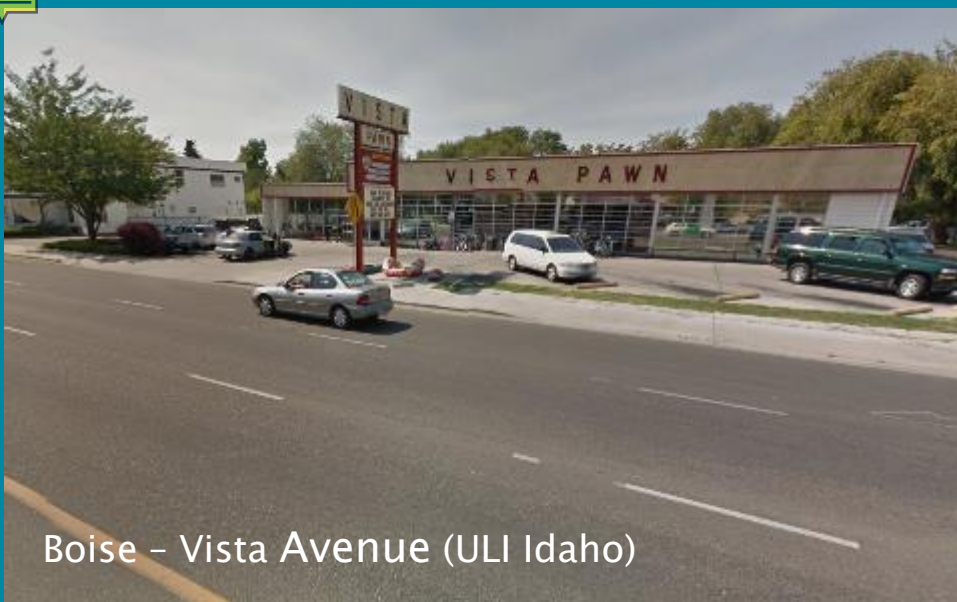
# The Healthy Corridor Opportunity

Automobile-centric commercial corridors exist in nearly every community, characterized by:

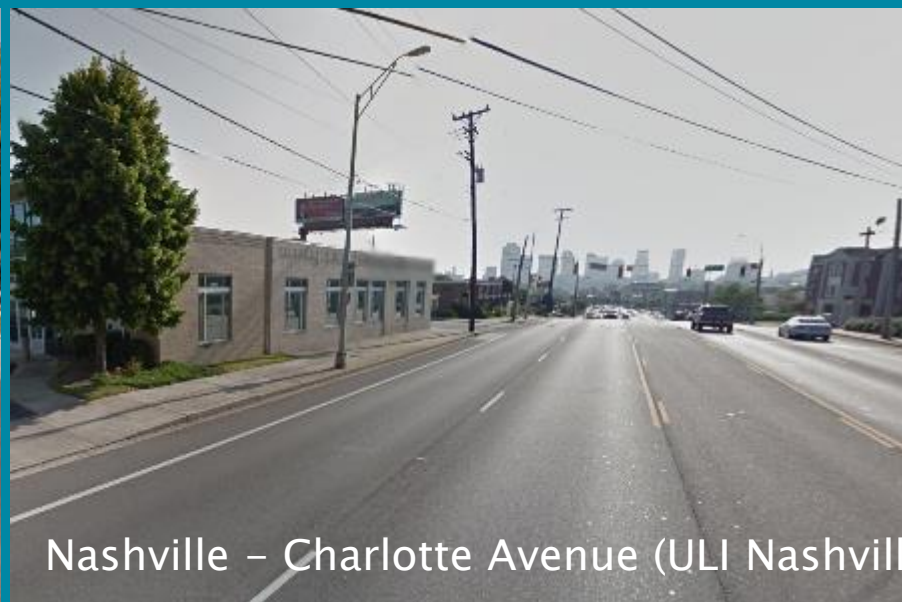
- danger – high rates of pedestrian injuries and fatalities
- wide road with multiple lanes
- high-speed traffic
- nonexistent or limited transit service
- buildings set back from the street
- obstructive utility poles and wires
- lack of trees and vegetation
- few healthy food options
- poor quality sidewalks

How can we reinvent these corridors in healthier ways?





Boise – Vista Avenue (ULI Idaho)



Nashville – Charlotte Avenue (ULI Nashville)



Los Angeles – Van Nuys Boulevard (ULI Los Angeles)



Denver – Federal Boulevard (ULI Colorado)





# The Healthy Corridor Approach

A healthy corridor is a place that reflects the **culture of the community**, promotes **social cohesion**, inspires and facilitates **healthy eating** and **active living**, provides and connects to a variety of **economic and educational opportunities** and **housing and transportation choices**, and adapts to the **needs and concerns of residents**.



# THE HEALTHY CORRIDOR TYPOLOGY



## Improved infrastructure

- Bike/pedestrian infrastructure
- Traffic calming
- Utility and signal enhancements
- Shade, benches, and visual interest
- Human-scale lighting
- Accessible to all

## Design + land use to support community needs

- Vibrant retail
- Various housing options
- Buildings adjacent to sidewalks
- Improved parking strategies
- High-quality parks and open space
- Healthy food options

## Engaged + supported residents + visitors

- Engaged residents, businesses, nonprofits, vulnerable populations
- Regular programming
- Pet accommodations
- Defined identity
- Safety, real and perceived

## Linkages to other parts of the city

- Multimodal, connected street networks
- Sidewalk and trail connections
- Transit
- Bike infrastructure

# Columbia Pike, Arlington VA



For nearly three years the citizens of Arlington County helped to define a concept for growth along Columbia Pike. Joining forces with the County and the Columbia Pike Revitalization Organization (CPRO), the community is looking to transform Columbia Pike through a comprehensive effort. This effort, spelled out in the County adopted "Columbia Pike Initiative," sets forth a long-range vision to create a competitive and vibrant corridor by addressing issues such as economic and community development, land use and zoning, urban design, transportation, housing and open space.



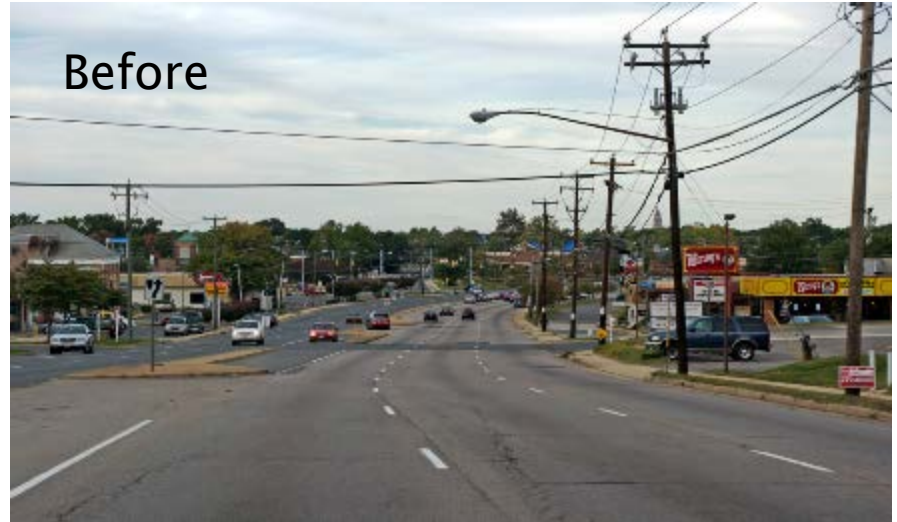
The Pike corridor is an organizing element for the future of the community. Smart redevelopment is a catalyst for social, economic, and physical improvements that affect the lives of all Arlington residents. But for the Pike to be functional, livable, and serve as ever-changing economy, the street must have a better-defined physical form. The resulting new code is the foundation for making this possible.

**The Columbia Pike Special Revitalization District Form Based Code** introduces livable approaches to redevelopment and revitalization throughout the Columbia Pike corridor. Instead of focusing on what is undesirable, Form Based Codes focus on the community's design vision. Basic rules specify a range of acceptable building types, including an urban design character, the Form Based Code for Columbia Pike was developed to preserve the existing community character while improving the quality of new development along the corridor. The comprehensive effort sets forth a long-range vision to create a competitive and vibrant corridor and urban center.

Arlington County is one of the first jurisdictions in the nation to apply Form Based Code to revitalize existing older sectors; this is among the largest (if not the largest) application of Form Based Code in the country. The following pages describe the process that was followed in the development of the code – from conceptual visualizations, to detailed regulations to achieve the vision, in the form of written and visual standards for infill development.

DOVER, KOHL & PARTNERS  
town planning

Before



After





# AMERICANS PREFER HEALTHY PLACES

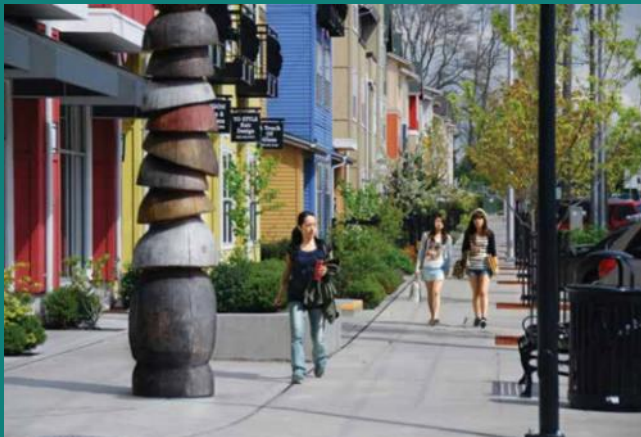
People want to live in communities that make healthy lifestyles easy.

- Over half of Americans, and 63% of millennials, would like to live in a place where they **do not need to use a car very often**
- 48% say **bike lanes are insufficient**
- 38% say their communities lack **recreational and parks space**
- 16% say it's **not easy to find fresh food**



AMERICA IN 2015  
SURVEY

# HEALTHY PLACES



Mixing uses



Walkability and bikeability



Food access



Social and cultural cohesion



# HOW CAN YOU SUPPORT BIKING?

- ➔ Choose project sites adjacent to active transportation routes.
- ➔ Include bike amenities that allow tenants to commute car-free and which provide opportunities to live healthier lifestyles.
- ➔ Market active transportation features as a key differentiating amenity.
- ➔ Forge partnerships between the public and private sector, as well as with non-profit groups, to coordinate development and the creation of new active transportation infrastructure.



# Urban

# Street

# Design

# Guide

National Association of City Transportation Officials





Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.  
—World Health Organization



# ULI BUILDING HEALTHY PLACES INITIATIVE

## Connect with us

- [uli.org/health](http://uli.org/health)
- [health@uli.org](mailto:health@uli.org)

# THANK YOU!

