

Northeast Tarrant Transportation Summit

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Urban Design and Transportation



Shifting Suburbs:
Reinventing Infrastructure
for Compact Development



- High quality infrastructure is a key driver of real estate investment.
- Upgrades to public transportation are the top priority of real estate developers and investors.
- Residents of walkable, mixed use communities drive almost 30% less than those who live in auto-oriented settings.
- The transportation landscape is changing.

Design around Cars = More Cars



Design around People = More People And better places!

Walkable Places Create Real Estate Value

- Numerous studies show that the demand for walkable, mixed use design far outstrips current supply
- There is a growing demand for urban/small town/village living especially among retirees, empty nesters, young professionals and single people.



Walkability Boosts Value

Walkable, Compact Neighborhoods

- **Promote Health** – the average resident weighs 6-10 lbs. less than residents of car dependent neighborhoods.
- **Save Money** – Transportation is the 2nd largest household expense.
- **Foster Connection** – Studies show that every 10 minutes spent in a car commute reduces time spent in community activities by 10%
- **Increases Value** – Every one point increase in Walk Score equates to a \$700 to \$3000 increase in home value.
- **Provide Commercial Premiums** – A new study by Real Capital Analytics (RCA) shows significantly greater appreciation for commercial properties in “highly walkable locations” over “car dependent locations” (125% appreciation vs. 22%).

Walkable Communities



Lower Downtown Denver



Old Town Alexandria, VA

- In all 30 of the largest US metro areas, the majority of new real estate development is occurring in walkable urban neighborhoods.
- On average rents are 74 percent higher in walkable neighborhoods than comparable space in driveable suburban locations.
- Office properties 90% higher
- Retail properties 71% higher
- Multifamily rental 66% higher

Source: *Foot Traffic Ahead; Ranking Walkable Urbanism in America's Largest Metros*, George Washington University School of Business, 2016



Reston, Virginia



Sterling, Virginia

“Walkable suburban real estate can command value premiums of 25% to 100%.”

Source: PUMA's Global Trends Report, 2014

Which one is More Profitable?

Rockville, MD



One-Story Building
Lots of parking in front of building
Single Use Neighborhood

Bethesda, MD



Multi-Story Building
No parking in front of building
Mixed Use neighborhood

Which one is more profitable?



Rockville Pike

1 Way to get here:

- Drive your car



Downtown Bethesda

4 Ways to get here

- Drive your car
- Take Metro
- Ride your bike
- Walk

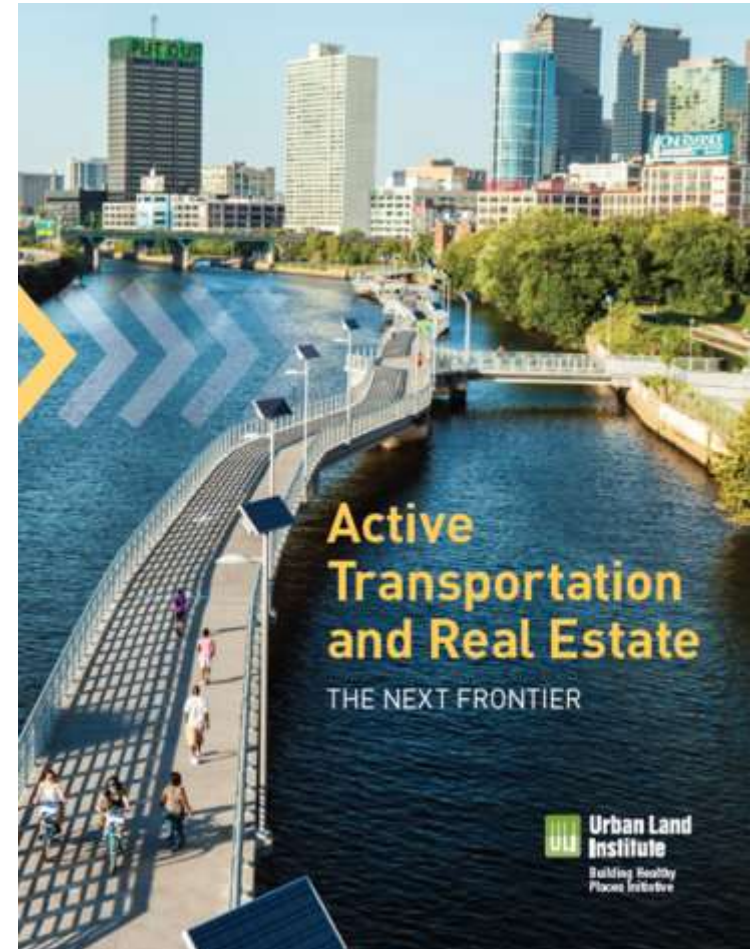
Place Making Dividend



People stay longer,
come back more often
and spend more
money in places that
attract their affection.

Transportation is Changing!

- The transportation landscape is changing.
- Bike/Ped Infrastructure, Mobility Sharing and Autonomous Vehicles will have a big future impact.
- Bicycle infrastructure is relatively cheap and is catalyzing real estate investment just as other forms of infrastructure investment have done in the past.



Shared Use Mobility



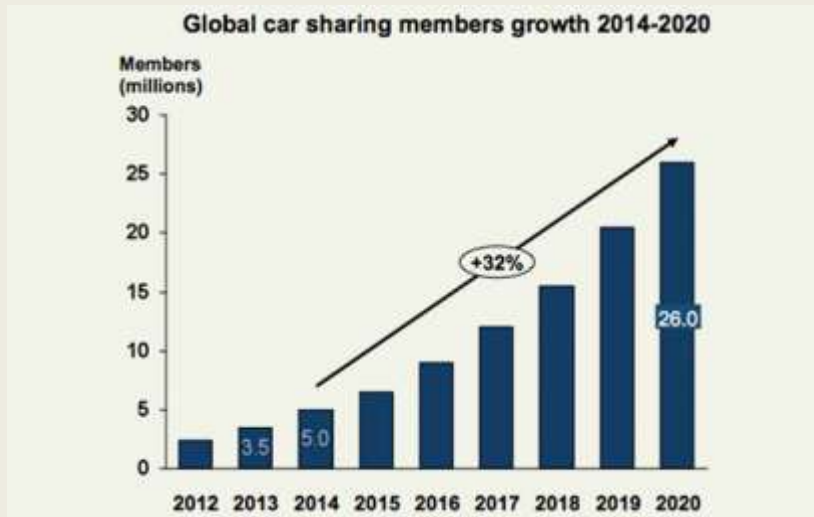
- Ride Sharing
- Car Sharing
- Bike Sharing
- Uber/Lyft
- Taxis /Limos
- Autonomous Vehicles



“Like the smartphone, which you lived without until about a decade ago and now can’t imagine living without, future mobility innovations will quickly change from unanticipated to indispensable.”

George Will – March 23, 2016

Car Sharing



- Car share membership is growing by 32 percent a year.
- Millennials have embraced the sharing economy.
- Research shows that when it comes to transportation millennials think that having “mobility options” is more important than car ownership.
- Sources: Berg Insight, Frost & Sullivan, 2016



Capital Bikeshare - DC



- System started in 2008 with 10 stations and 120 bikes.

- In 2016 there were 429 stations and 3700 bikes.

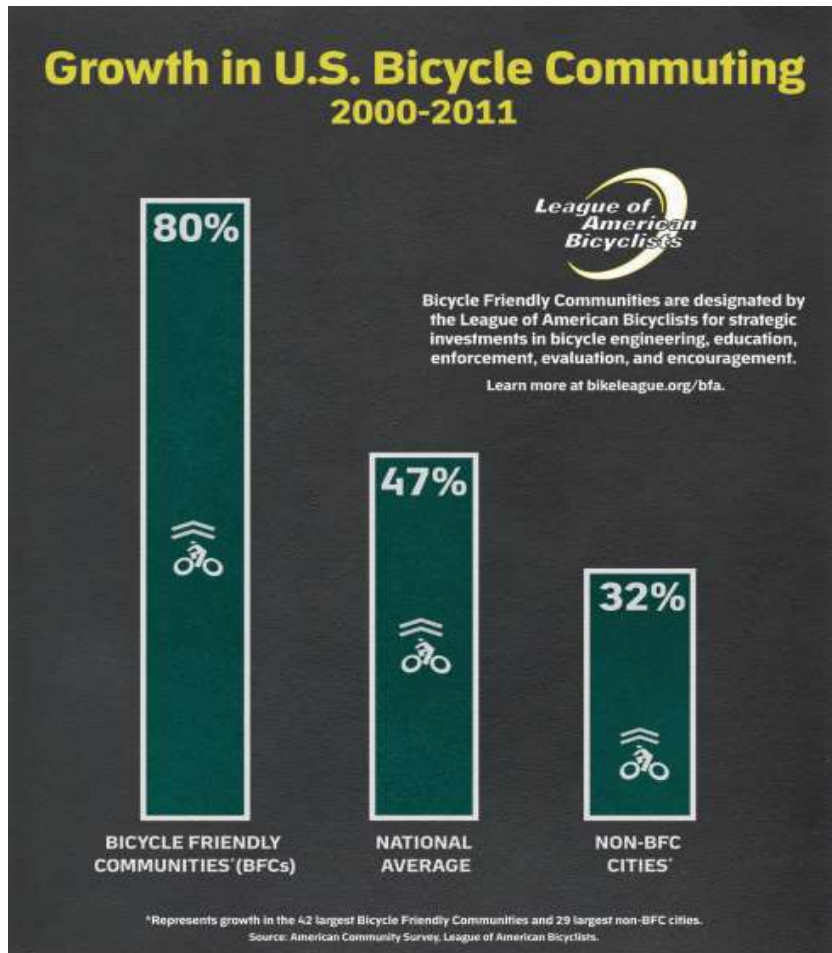


- Today there are an average of 5700 rides per day.

- Annual ridership exceeds 2,100,000

In 2002 there were 7 bike share programs worldwide. Today there are 750, including 119 in the US.

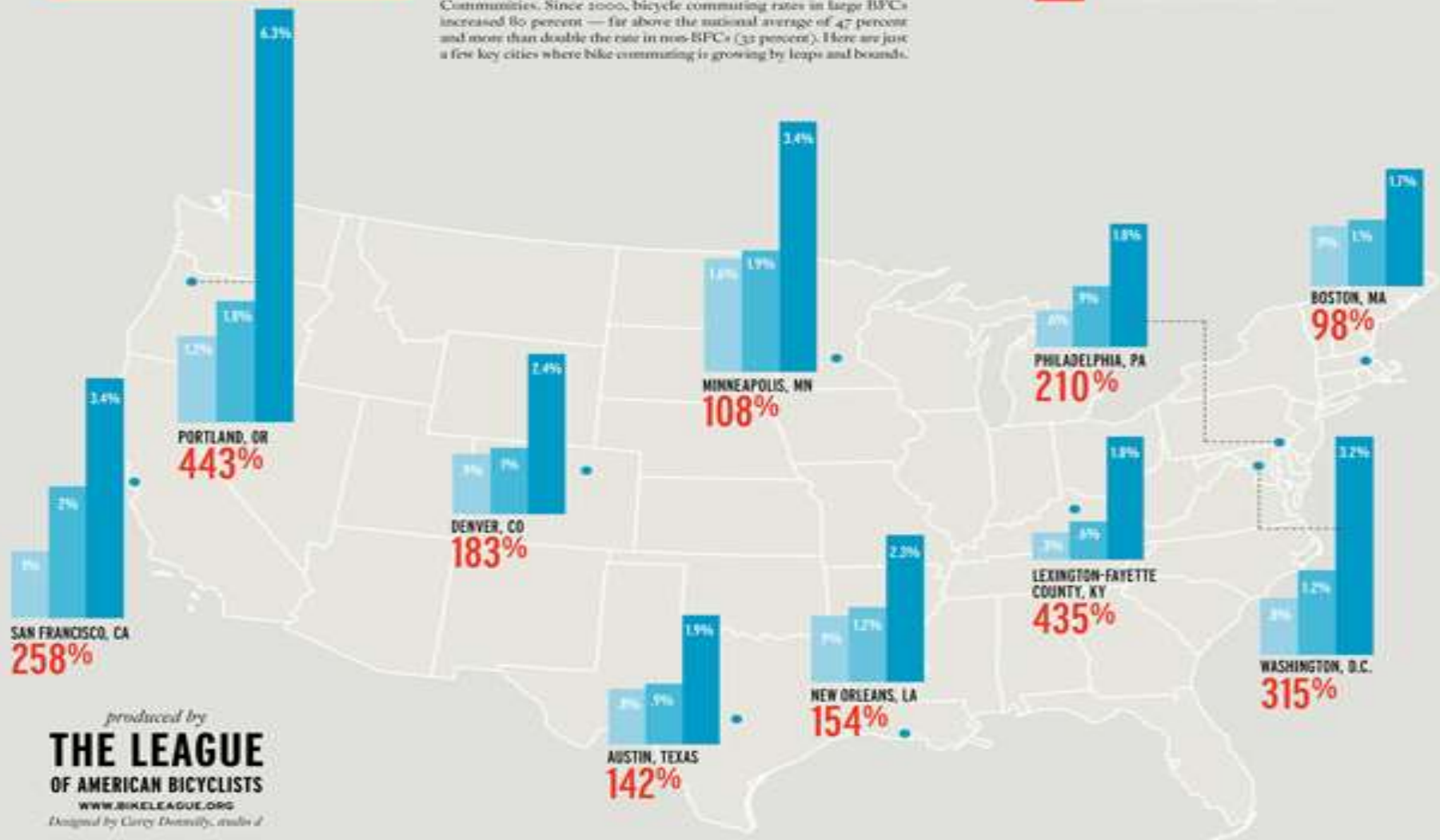
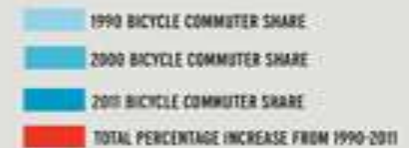
Bicycling is Booming!



Cycling is America's fastest growing form of transportation

THE GROWTH OF BIKE COMMUTING

For cyclists of all stripes, there's nothing like Bike to Work Day — our annual celebration of active transportation. Caravans of excited new riders enjoying their commute like never before. Veteran bicyclists seeing and connecting with old friends over free breakfast and live entertainment. Thanks, in part, to encouragement efforts like BTWD, the number of bike commuters is on the rise — especially in Bicycle Friendly Communities. Since 2000, bicycle commuting rates in large BFCs increased 80 percent — far above the national average of 47 percent and more than double the rate in non-BFCs (33 percent). Here are just a few key cities where bike commuting is growing by leaps and bounds.



Cycling is growing fastest in communities that invest in cycling infrastructure.



Investments in roads and highways led to **Auto-Oriented Development.**



Investments in public transportation led to **Transit-Oriented Development**

Investment in Bicycle Infrastructure is now leading to Trail Oriented Development



Bicycle Infrastructure Provides Bang for the Buck



- **Bicycle infrastructure is relatively inexpensive.**
- Portland, OR has developed a 300 mile network of bike trails, bike lanes and bike boulevards for about the same cost as 1 mile of urban freeway).
- **Investments in bicycle infrastructure have high levels of return on investment.**
- Dare County, NC (i.e. the Outer Banks) says that a one-time investment of \$6.7 million on bike infrastructure has resulted in a 9-to-1 annual return.

Cost of 3 San Francisco Transportation Projects

- **Protected Bikeway** (1 mile) - \$445,000



- **Doyle Drive** (1 mile) - \$571 million



- **Bay Bridge East Span** (1 mile) - \$2.07 Billion



More Walking & Biking = Less Parking

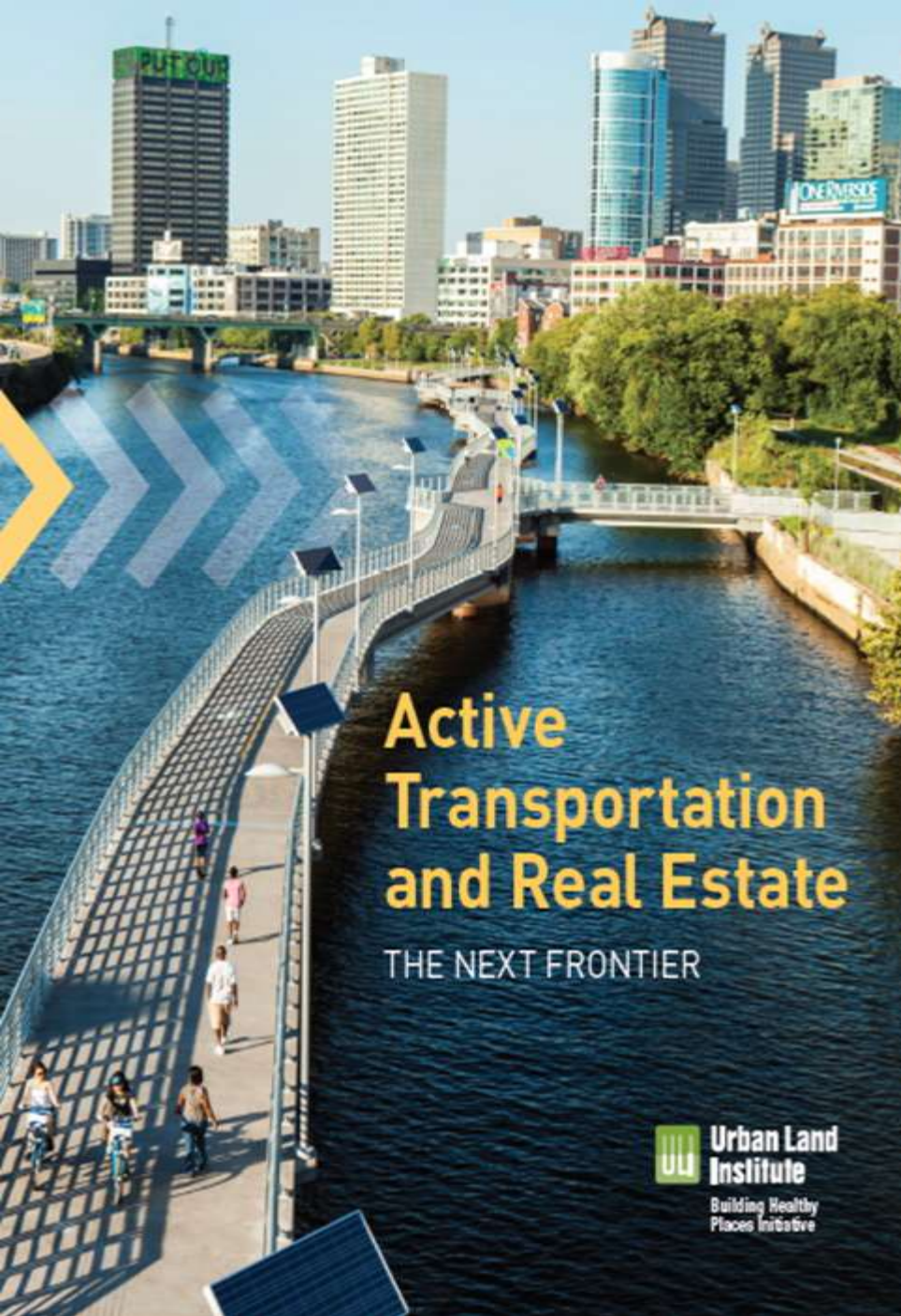
- There are over **800 million parking spaces** in the US.
- **Surface parking** costs \$3000 to \$4000 per space.
- **Structured parking** costs \$15,000 to \$20,000 per space.
- **Underground parking** can cost up to \$50,000 per space
- People who live in walkable, mixed use settings **drive less** than those in auto-oriented settings.
- **12 Bicycles** can be parked in the same space as **one car**.
- Bicycle parking costs a small fraction of vehicle parking.
- Many cities are reducing vehicle parking requirements in TOD & mixed use settings.



Silver Moon Lodge – Albuquerque



- Silver Moon Lodge has 154 apartment units, but only 23 car parking spaces.
- It was able to reduce construction costs associated with car parking by providing bike parking and car share facilities.
- Over 95% of units are occupied because the building is in a walkable and bike-friendly neighborhood.



Real Estate Development Projects

- Bici Flats, Des Moines, IA
- Circa, Indianapolis, IN
- Flats at Bethesda Row, Bethesda, MD
- Gotham West, New York, NY
- Hassalo on 8th, Portland, OR
- MoZaic, Minneapolis, MN
- Ponce City Market, Atlanta, GA
- Silver Moon Lodge, Albuquerque, NM
- 250 City Road, London, UK
- Westwood Residences, Singapore

What is a Bicycle-Friendly Building?



- Bicycle Parking
- Bike Storage
- Easy Access
- Wider Hallways
- Repair Station (tools, air pump and bike stand)
- Showers & lockers (in commercial buildings)
- Community gathering spaces
- Bike share station

Trail Side Development

Monon Trail

Carmel, Indiana





The Carolina's Health Care System located its headquarters complex adjacent to Charlotte's Little Sugar Creek Greenway so that employees would have a place to run, walk or cycle





Daybreak, a large master-planned community in Salt Lake City includes extensive infrastructure for bicyclists and pedestrians.



Daybreak also has a new light rail station which connects to Downtown Salt Lake City.

70 percent of the children in Daybreak walk or ride a bike to school.

Indianapolis Cultural Trail



Trail Facts

- 8 miles in length
- 6 Cultural Districts Connected
- \$63 million Cost
- \$27.5 in private funding
- \$35.5 in public funding
- \$864 million estimated economic impact
- 11,372 jobs created
- **Property values within one block of trail rose 148% in six years, between 2008 and 2014**
- Source: City of Indianapolis



Indianapolis Cultural Trail



Separate Lanes for
pedestrians and cyclists

Property values adjacent to the
trail have risen 148% since the trail
opened in 2008



Circa

Indianapolis IN

Developer – Milhaus

Project Type – Multi Family

Building Size -265 units,
295,000 sq.ft across six
buildings

“The Indianapolis Cultural Trail
adds tremendous value to Circa
and has been the most
transformative infrastructure
investment in downtown in the
last 10 years.”

Jake Dietrich, Milhaus



Active Transportation Features



Bicycle storage



**Complimentary bike-share
service**



Bike workroom



Bike washing station

Midtown Greenway - Minneapolis



- Called America's 1st Bicycle Freeway
- 5.5 miles in length. Cost \$36 million
- Separate lanes for cyclists and pedestrians.
- Usage – Up to 5,380 cyclists per day.
- Has rest stops, repair stations and trailside cafes.
- 13 new multi-family projects built adjacent to trail: a total of \$750 million in new development.

Midtown Greenway - Minneapolis



The Greenway is a critical amenity for our tenants who love the accessibility it provides.

Stuart Ackerburg, Developer of Mozaic

Shared Themes Among Development Projects

- Trails, bike lanes, bike share stations and/or sidewalks **add value to real estate projects.**
- **A market** for bike friendly features in residential & commercial properties **exists and is growing.**
- Relatively **small investments** in bike friendly amenities can lead to **improved returns.**
- A **reciprocal relationship** exists between public and private sectors in terms of maximizing investments in active transportation infrastructure



The US Infrastructure Dilemma?

- Despite continuously adding lanes and capacity, urban highways in many metro areas are more congested than ever.
- The Highway Trust Fund can not keep pace with funding needs because of improved fuel efficiency and because people are driving less.
- Surveys show that Americans support high quality infrastructure, but there is little agreement on how to pay for it.
- Bicycling & Mobility Sharing are growing fast, are relatively cheap and are catalyzing real estate development just as other forms of infrastructure have done in the past.





THANK YOU!