

Health, Housing, & Equity

TH 310

Thursday 6/21/18 8:45am-9:45am

HSW

This presentation is protected by U.S. and international copyright laws.

Reproduction, distribution, display and use of the presentation without written permission of the speaker is prohibited.

This program is registered with the AIA/CES for continuing professional education. As such, it does not include content that may be deemed or construed to constitute approval, sponsorship or endorsement by AIA of any method, product, service, enterprise or organization.

The statements expressed by speakers, panelists, and other participants reflect their own views and do not necessarily reflect the views or positions of The American Institute of Architects, or of AIA components, or those of their respective officers, directors, members, employees, or other organizations, groups or individuals associated with them.

Questions related to specific products and services may be addressed at the conclusion of this presentation.

Speakers List

- Bon Ku, MD
- Catherine Ross, PhD
- Chris Kochtitzsky, MSP
- Liz York, FAIA

Course / Learning Objectives

- **Discuss where chronic disease can be solved through low-cost built environment initiatives.**
- **Determine the connection between work, productivity losses, and buildings in effort to design public health interventions.**
- **Apply lessons learned from healthy building certification systems to embed health specifically for low income residential properties.**
- **Examine how these solutions can be applied to create sustainable, healthy, and more equitable communities.**

Health, Housing, and Equity

Introduction to Market Forces and Needs

Dr. Catherine Ross

Harry West Professor, School of City & Regional Planning

Director of Center for Quality Growth & Regional Development

Georgia Institute of Technology

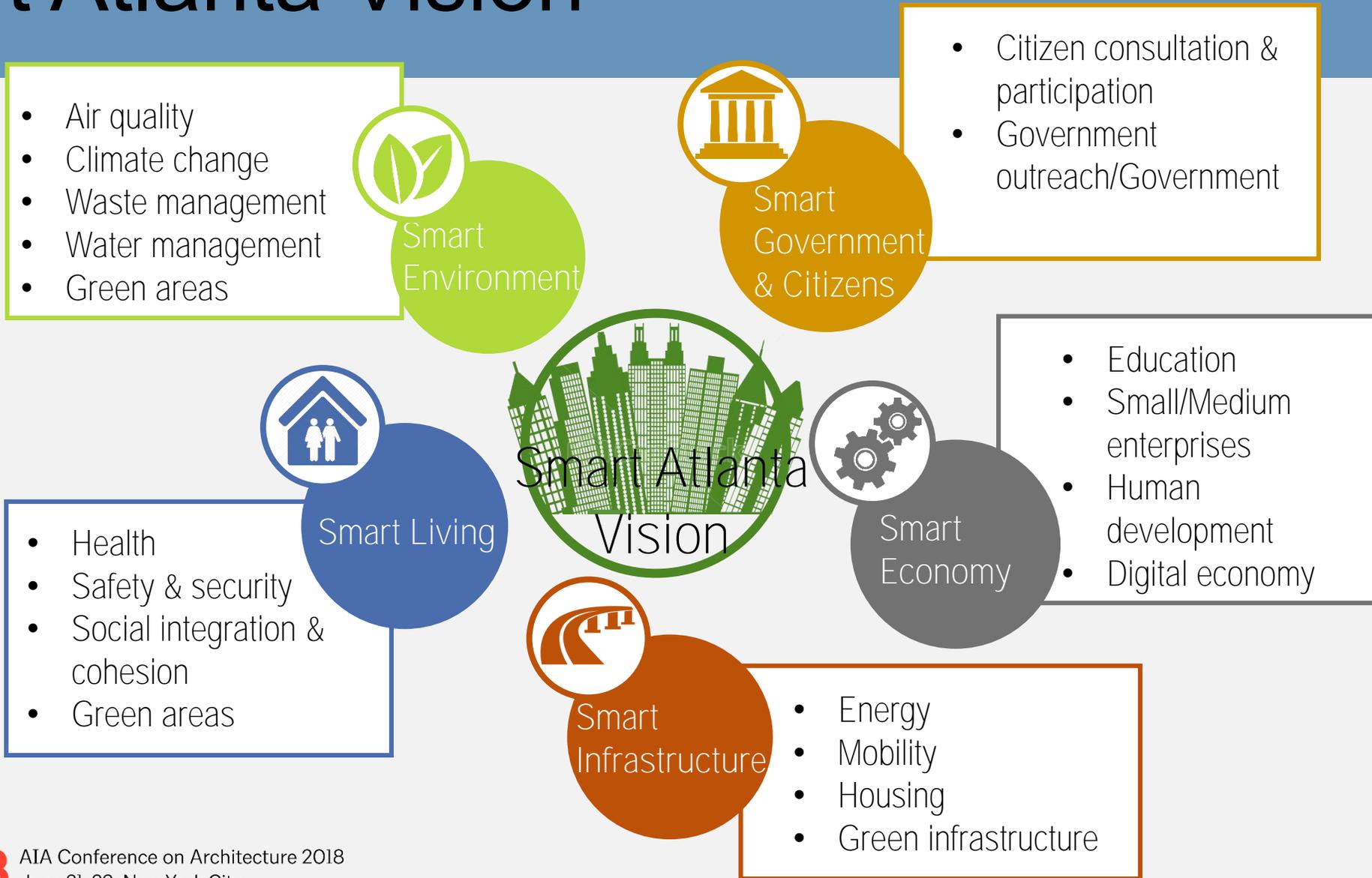


Trends

- The sharing economy
- Temporary, tall, small, sustainable, new, regeneration
- Health in all places
- Health in all design
- The Internet of spaces
- Housing variety fosters health
- Universal design
- Et al.



Smart Atlanta Vision



Livable Centers Initiative (LCI)

- ◆ LCI programs by Atlanta Regional Commission (ARC):
 - have supported plans that link to transportation improvement and mixed-land use development since 1999.
- ◆ LCI authorization
 - \$13 million for the studies, \$ 500 million for the implementations
- ◆ 2008 National Award for Smart Growth from EPA
- ◆ 2009 National Planning Excellent Award from APA



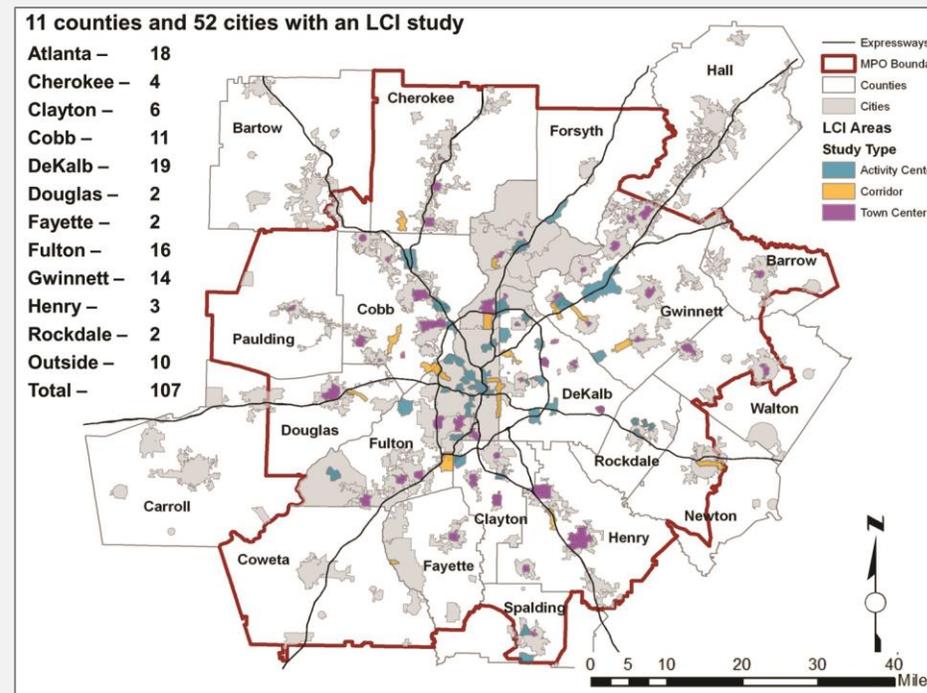
*Impacts of Smart Growth Strategies on Housing Price
(Wang & Immergluck)*

Livable Centers Initiative (LCI)

- ◆ Type of LCI programs
 - Activity Center, Town Center, and Corridor

Type	Description
Town Center	The historic center of a community with a mix of commercial and civic uses
Activity Center	A community center with a mixture of office, retail, service, and residential or civic uses
Corridor	Roadways classified as a major collector in length (approximately ½ to 4 miles) focusing on corridors developing at an urban scale
Emerging Regional Center or Corridor	Not yet fully developed as a center or corridor, but are experiencing strong growth pressures

Source: ARC, 2009.
http://www.atlantaregional.com/documents/LCI_APPLICATION_2010.pdf



Impacts of Smart Growth Strategies on Housing Price (Wang & Immergluck)

Livable Centers Initiative (LCI)

- ◆ Town center LCI in suburban area (high income / less dense)
 - Positive effects on housing sales & prices within the target area
 - Lower values in nearby areas
- ◆ Activity center LCI in suburban area (lower income /more dense)
 - Positive effects on housing sales & prices within the target area
 - Positive effects on housing sales & prices in nearby areas

Smart-growth development programs may contribute to **revitalizing old suburban downtown centers**, but that the effects of **smaller-scale efforts may result in predominantly zero-sum effects**, in which higher values within the target area are accompanied by lower values in adjacent areas.

Impacts of Smart Growth Strategies on Housing Price (Wang & Immergluck)

Small Houses

- Big health advantages to living in tiny houses, particularly when located in tiny house communities called villages.
- Sustainable building design and healthy building materials for tiny houses.
- Reduce the housing cost burden on residents while still providing a benefit to the community. Health care facilities, elderly accommodations, affordable housing, workforce housing, mitigate displacement

MICROHOUSE



<https://smallhousebliss.com/2016/08/11/microhouse-tangletown-adu/>

The Sharing Economy

- Shared housing is able to lower the cost of living
- Introduce more affordable housing
- The impact of Airbnb on housing market
- Affordable rental housing
- Innovative planning and policy tools

Airbnb guests support local business throughout New York's diverse neighborhoods.

57%
of visitor spending occurs in the neighborhood where she stays.

\$740
Amount the average visitor spends in the neighborhood where she stays.



Summary

- Urban regeneration at smaller footprint
- Smart city initiative
- Livable Centers Initiative
- The sharing economy introduces new models
- Build effective and sustainable partnership around housing and health



<https://www.urban.org/research/publication/emerging-strategies-integrating-health-and-housing>

Thank You!

Catherine L. Ross: <http://catherine.ross@design.gatech.edu>

For more information, please visit:

Center for Quality Growth and Regional Development: <https://cqgrd.gatech.edu/>

Healthy Places Research Group: <https://cqgrd.gatech.edu/healthy-places-research-group>

National Center for Chronic Disease Prevention and Health Promotion

Division of Nutrition, Physical Activity, and Obesity



Health, Housing & Equity:

Translating Scientific Evidence-base into
Efficient and Effective Practice

Chris Kochtitzky, MSP

Senior Advisor, Physical Activity and Health Branch
Division of Nutrition, Physical Activity, and Obesity
Centers for Disease Control and Prevention



U.S.
currently
only scores
**59 out
of 100**
on the
*Healthy
Eating Index*

8.3%
of preventable
deaths in the
U.S. are due to
physical inactivity



Active People, Healthy Nation

Creating An Active America, Together

Our goal is to save lives and protect health by helping 4 million youth and 25 million Americans become more physically active





Overarching Evidence and Guidance

National Guidelines

DIETARY GUIDELINES FOR AMERICANS 2015-2020 EIGHTH EDITION

2008 Physical Activity Guidelines for Americans

Be Active, Healthy, and Happy!

www.health.gov/paguidelines

U.S. Surgeon General

The Surgeon General's Call to Action To Promote Healthy Homes

2009

STEP IT UP!
THE SURGEON GENERAL'S CALL TO ACTION TO PROMOTE WALKING AND WALKABLE COMMUNITIES

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Nat. Acad. of Science

Health Risks of Indoor Exposure to Particulate Matter
WORKSHOP SUMMARY

TRB SPECIAL REPORT 282

Does the Built Environment Influence Physical Activity?
EXAMINING THE EVIDENCE

TRANSPORTATION RESEARCH BOARD
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES





The “KNOWLEDGE”

from the Centers for Disease Control and Prevention &
the General Services Administration

Fitwel: addressing micro-environments in workplaces and multi-unit housing

■ Active Living

- Sample strategies in **locating in walkable neighborhoods** with nearby amenities and public transit access
- Provisions for **accessible, visible, and well-designed stairwells.**

■ Healthy Eating

- Strategies include **pricing incentives** for healthy snacks and
- Establishing **nutrition standards** for healthy food and beverages

■ Healthy Environments

- Strategies include **smoke-free building** policies and
- Providing **access to healthy drinking water**



Fannie Mae Healthy Housing Rewards



Fannie Mae™

Multifamily Term Sheet

Healthy Housing Rewards™ Healthy Design

Fannie Mae Multifamily offers Healthy Housing Rewards Healthy Design, a product feature that provides lower pricing to finance affordable properties with health-promoting design and operational features.

Health-promoting design and operational features include playgrounds, fitness equipment, tobacco-free environments, green spaces, and more.



Pricing	15 basis points discount.
Term	5-30 years.
Amortization	Up to 35 years.

Benefits

- Lower interest rate
- Reimbursement for Healthy Design Certification
- Flexible underwriting to specific affordable developments
- Flexible loan terms, and fixed- or variable-rate financing options
- Certainty and speed of execution



The “KNOWLEDGE”

from the U.S. Community Preventive Services Task Force

Community Guide: Combining macro-environment interventions from two categories

Pedestrian or Bicycle Transportation Systems

- Street pattern design and connectivity
- Pedestrian infrastructure
- Bicycle infrastructure
- Transit infrastructure and access

“Activity Friendly Routes”

Land Use and Environmental Design

- Mixed land use
- Increased residential density
- Community destination proximity
- Parks and recreational facilities

“Everyday Destinations”

A'18

AIA Conference on Architecture 2018

June 21-23, New York City

Guide to Community Preventive Services. Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design. <https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches>. Page last updated: May 01, 2017. Page accessed: May 4, 2017

TRANSLATION PRODUCTS

The Community Preventive Services Task Force's Built Environment Recommendation to Increase Physical Activity

REAL-WORLD EXAMPLES

What is the recommendation from the Community Preventive Services Task Force?
The Community Preventive Services Task Force recommends built environment approaches that combine one or more interventions to improve transportation systems (activity-friendly routes) with one or more land use and community design interventions (everyday destinations) to increase physical activity.

What are combined built environment intervention approaches?
Combined approaches that connect activity-friendly routes to everyday destinations make it safe and convenient for people of all abilities to walk, run, bike, skate, or use wheelchairs.

Activity-Friendly Routes
Pedestrian, Bicycle, and Transit Transportation Systems

- An activity-friendly route is one that is a direct and convenient connection with everyday destinations, offering physical protection from cars, and making it easy to cross the street.
- Components to consider for intervention include:
 - Street pattern design and connectivity
 - Pedestrian infrastructure
 - Bicycle infrastructure
 - Transit infrastructure

Everyday Destinations
Land Use and Environmental Design

- Everyday destinations are places people can get to from where they live by walking, bicycling, or public transit. This can include grocery stores, schools, worksites, libraries, parks, restaurants, cultural and natural landmarks, or healthcare facilities. They are often desirable, useful, and attractive.
- Components to consider for intervention include:
 - Mixed land use
 - Increased residential density
 - Proximity to community destinations
 - Parks and recreation facilities

How do these approaches...
Why do these approaches...
Level of cost, complexity, or scale

Real-World Example	Activity-Friendly Routes				Everyday Destinations			
	Street Pattern Design and Connectivity	Pedestrian Infrastructure	Bicycle Infrastructure	Public Transit Infrastructure and Access	Mixed Land Use	Increased Residential Density	Proximity to Community Destinations	Parks and Rec Facility Access
The city of El Paso, TX created a walking route between the Union Plaza District and the Downtown Arts District. These destinations of cultural and economic activity were previously divided by a locked parking lot that prohibited public and pedestrian access.	✓	✓					✓	
A neighborhood in St. Louis, MO reduced average vehicle speed by using traffic calming techniques in a busy area served by four bus stops. This improved access to buses during the day, which connected residents to community destinations.		✓		✓			✓	
In Westlaco, TX, students, school officials, and the city public works department partnered to paint a new crosswalk to connect the school to the community and the surrounding neighborhood.		✓					✓	
In Los Angeles, CA, the Watts neighborhood designed a visitor's center at the train station in a historic building along with a network of walking paths with public art to promote pedestrian traffic between the metro rail public transit stop and cultural sites.		✓					✓	
With the mayor, more than 100 community volunteers in Cuba, MI constructed or improved 9.5 miles of trails with landscaping including shade trees, benches, parking areas, and signage. Each trail attracts different users—two trails connect the village to the Santa Fe National Forest.		✓					✓	✓
The city of Herndon, VA obtained grant funding to revitalize an old road connecting the middle and high schools that had been blocked off for years. This new pathway opened a safe route to school and allows more residents to use a newly surfaced track.	✓	✓					✓	✓
In Atlanta, GA, the BeltLine is converting abandoned railway into a combination of trails, parks, light rail transit, high-density residential buildings, and commercial development. Expected to eventually cover 22 miles of pathway, the BeltLine will connect 45 neighborhoods and Atlanta's council districts.	✓	✓	✓	✓	✓	✓	✓	✓
To improve public access to the waterfront in Houghton, MI, the remote city in the Upper Peninsula gradually acquired a stretch of shoreline property and replaced industrial ruins with parks, marinas, and paved bicycle/pedestrian trails which now connect the city center to parks and residential districts.	✓	✓	✓				✓	✓

The Community Preventive Services Task Force's Built Environment Recommendation to Increase Physical Activity

IMPLEMENTATION RESOURCE GUIDE

What is the recommendation from the Community Preventive Services Task Force?
The Community Preventive Services Task Force (CPSTF) recommends built environment approaches that combine one or more interventions to improve pedestrian or bicycle transportation systems (activity-friendly routes) with one or more land use and community design interventions (everyday destinations). Combined approaches that connect activity-friendly routes to everyday destinations make it safer and more convenient for people of all abilities to walk, run, bike, skate, or use wheelchairs.

An activity-friendly route is one that is a direct and convenient connection with everyday destinations, offering physical protection from cars, or making it easy to cross the street. These routes can include crosswalks, protected bicycle lanes, multi-use trails, and pedestrian bridges. **Everyday destinations** are places people can get to from where they live by walking, bicycling, or public transit. These destinations can include grocery stores, schools, worksites, libraries, parks, restaurants, cultural and natural landmarks, or healthcare facilities.

To increase opportunities for physical activity through the built environment, public health professionals can work in partnership with multiple sectors, particularly transportation, land use, and community planning, but also education, parks and recreation, economic development, and community organizing.

What is this list of resources?
The Resource Guide includes potential steps to consider for planning and implementation. It includes implementation resources, Frequently Asked Questions (FAQs), and a "Multipurpose Resources" section for crosscutting material. For each content section, a small number of relevant resources were selected, prioritizing current, practical "how to" documents from federal agencies, national organizations, or CDC-funded partners whenever possible that are free and openly accessible to the public.

Who can use it?
State and local health departments, public health professionals, and community organizations working on ways to increase physical activity can use the resources in each section to guide their implementation process as they aim to build more activity-friendly communities.

How to find what you need:
Begin by using the resources for forming a cross-sector coalition, or skip ahead to the section that best describes your current stage of work. You will only need to reference the resources below that are relevant to the specific changes your community has selected.

- Form or consult with a cross-sector coalition
- Conduct or reference a baseline assessment
- Select an appropriate combination of the two components for your context:
 - Activity-Friendly Routes (i.e., Pedestrian, Bicycle, and Transit Transportation Systems) and/or
 - Everyday Destinations (i.e., Land Use and Environmental Design)
- Develop an action plan
- Whenever possible, evaluate impact
- Integrate improvements into a lasting community-wide effort

Centers for Disease Control and Prevention
For inquiries or assistance, please contact DNPAOPolicy@cdc.gov



Thank You!

For more information, visit:

www.surgeongeneral.gov/library/calls/index.html

www.cdc.gov/physicalactivity/community-strategies

fitwel.org



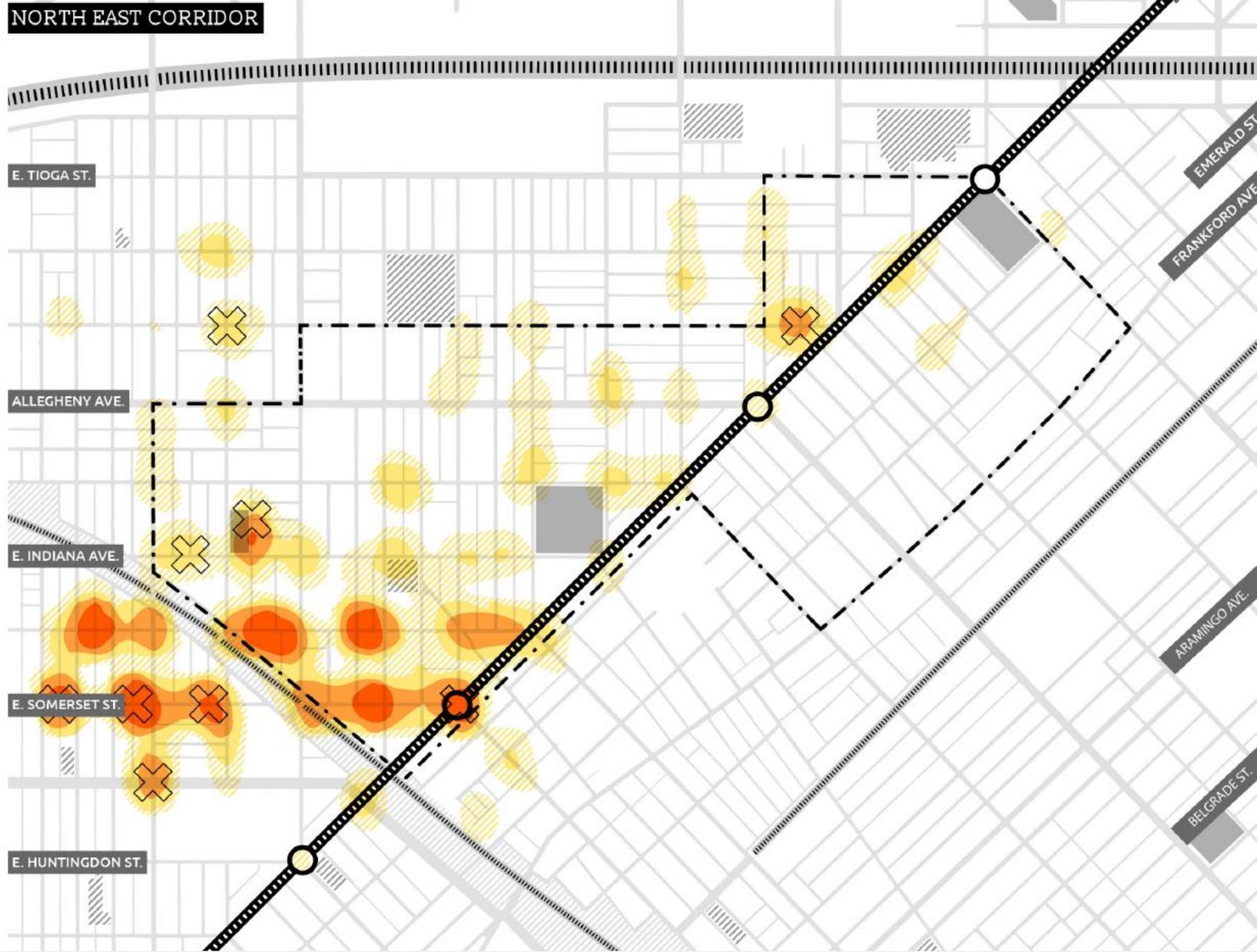
A'18

Design for Health

Design for **Social** Equity **Social** Impact **Social** Justice









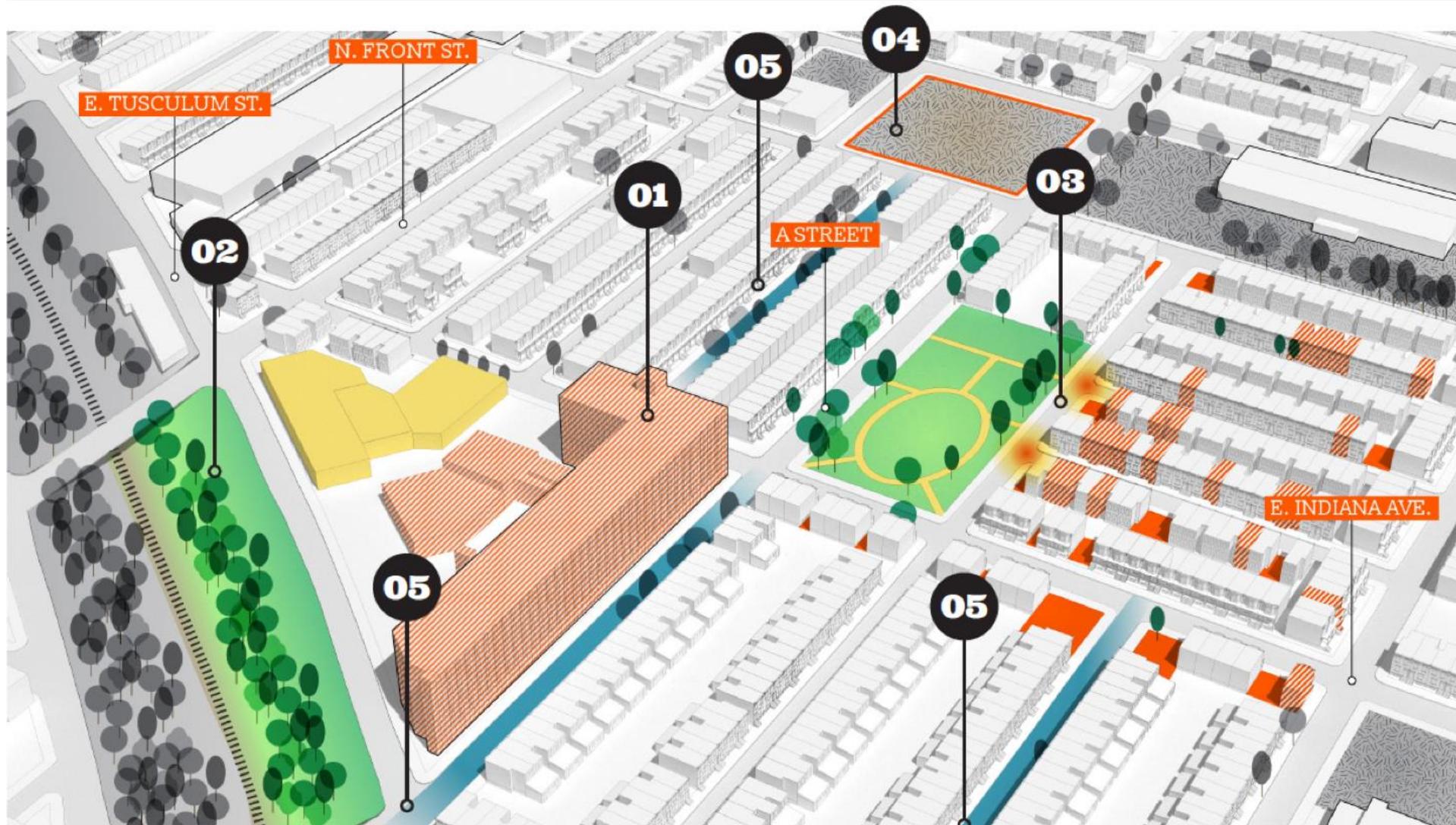
Priority
Vacant Building

Priority
Vacant Lot

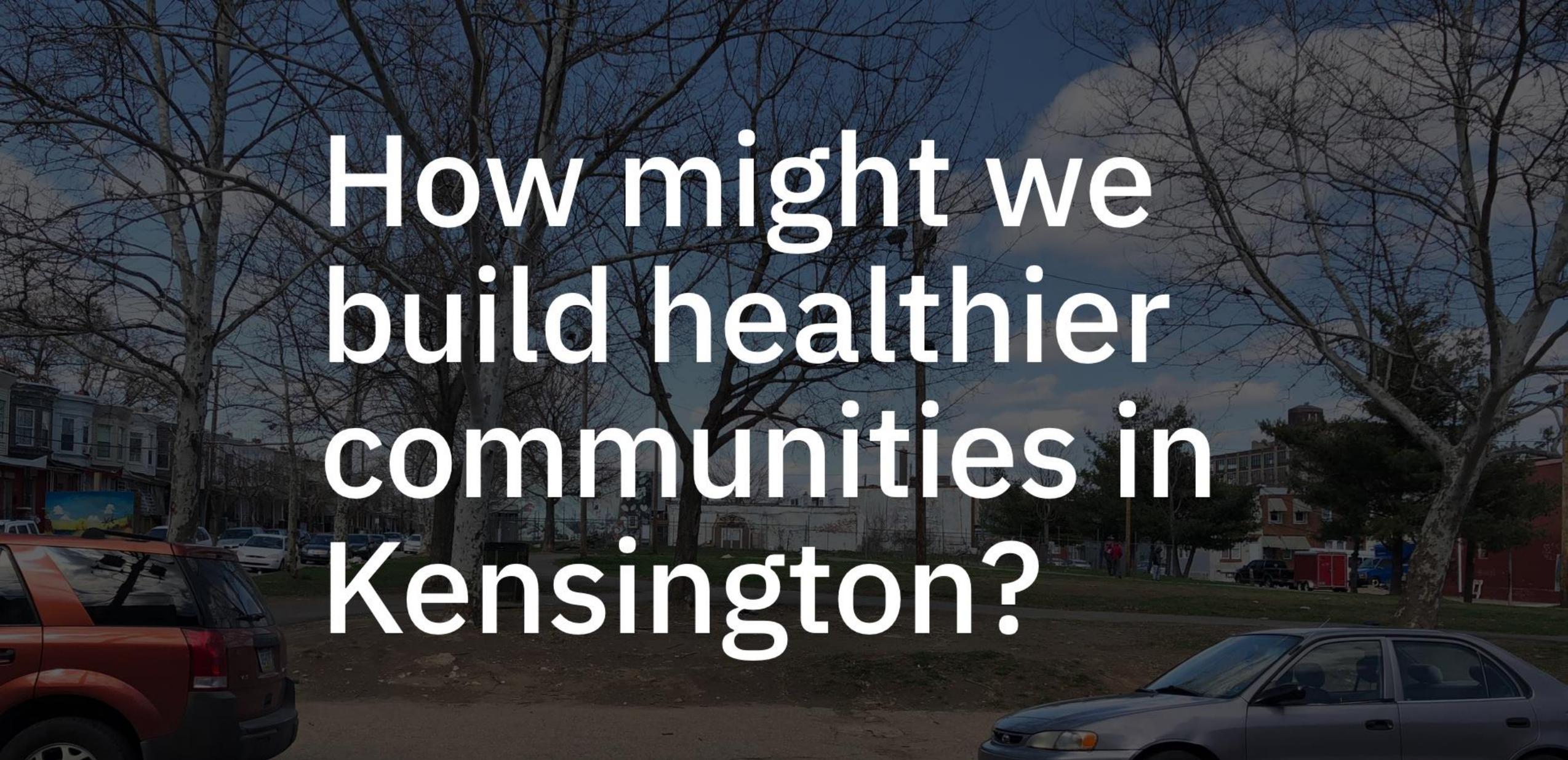
Key Publicly
Owned Lot

Micro-communities
Block

Key Crime
Hotspot



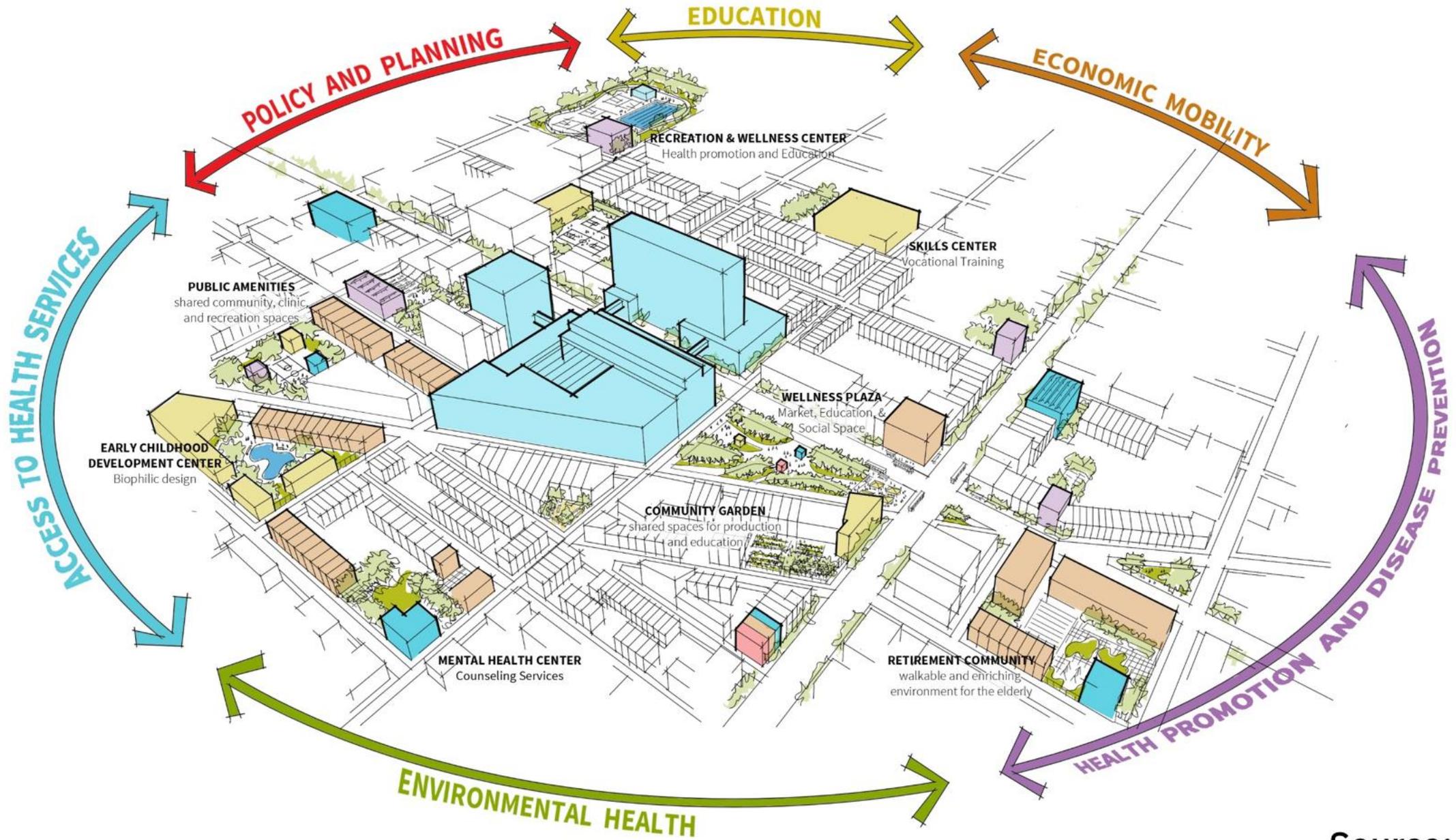




How might we build healthier communities in Kensington?







Source: Disney

Strategies to Incorporate Health in Housing

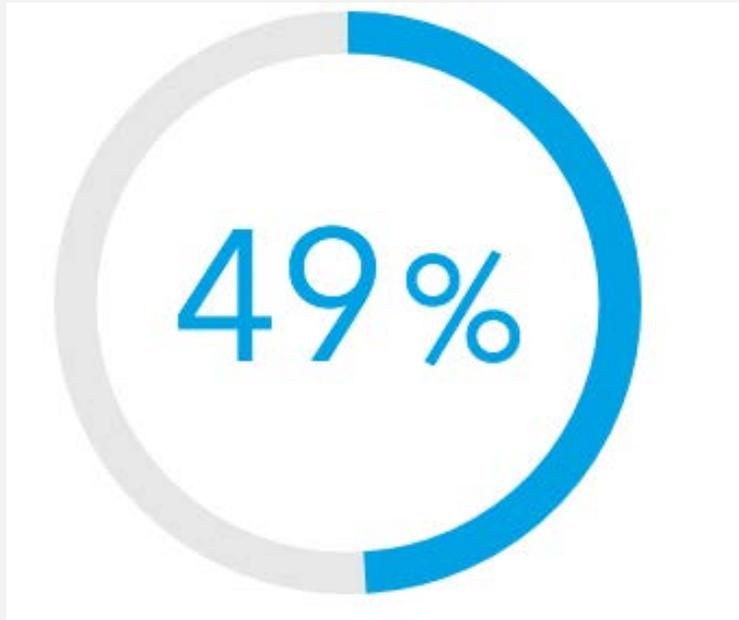
Liz York, FAIA

Market Opportunity

71% of homeowners cited proximity to walking paths, sidewalks, and trails to be very or somewhat important in their decisions of where to live.

22% of architects and 16% of homebuilders factor these amenities into their decisions.





49% of building owners are willing to pay more for buildings demonstrated to have a positive impact on health.

McGraw Hill Construction. The Drive Toward Healthier Buildings The Market Drivers and Impact of Building Design and Construction on Occupant Health, Well-Being and Productivity. Smart Market Report 2014. <http://naturalleader.com/wp-content/uploads/2016/04/DriveTowardHealthierBuildingsSMR2014.pdf>.

Market Transformation

**“Health is now an investible attribute
of real estate” GRESB 2017**

Health and Wellness Module
2016 – 174 participants
2017 – 252 participants



One example:

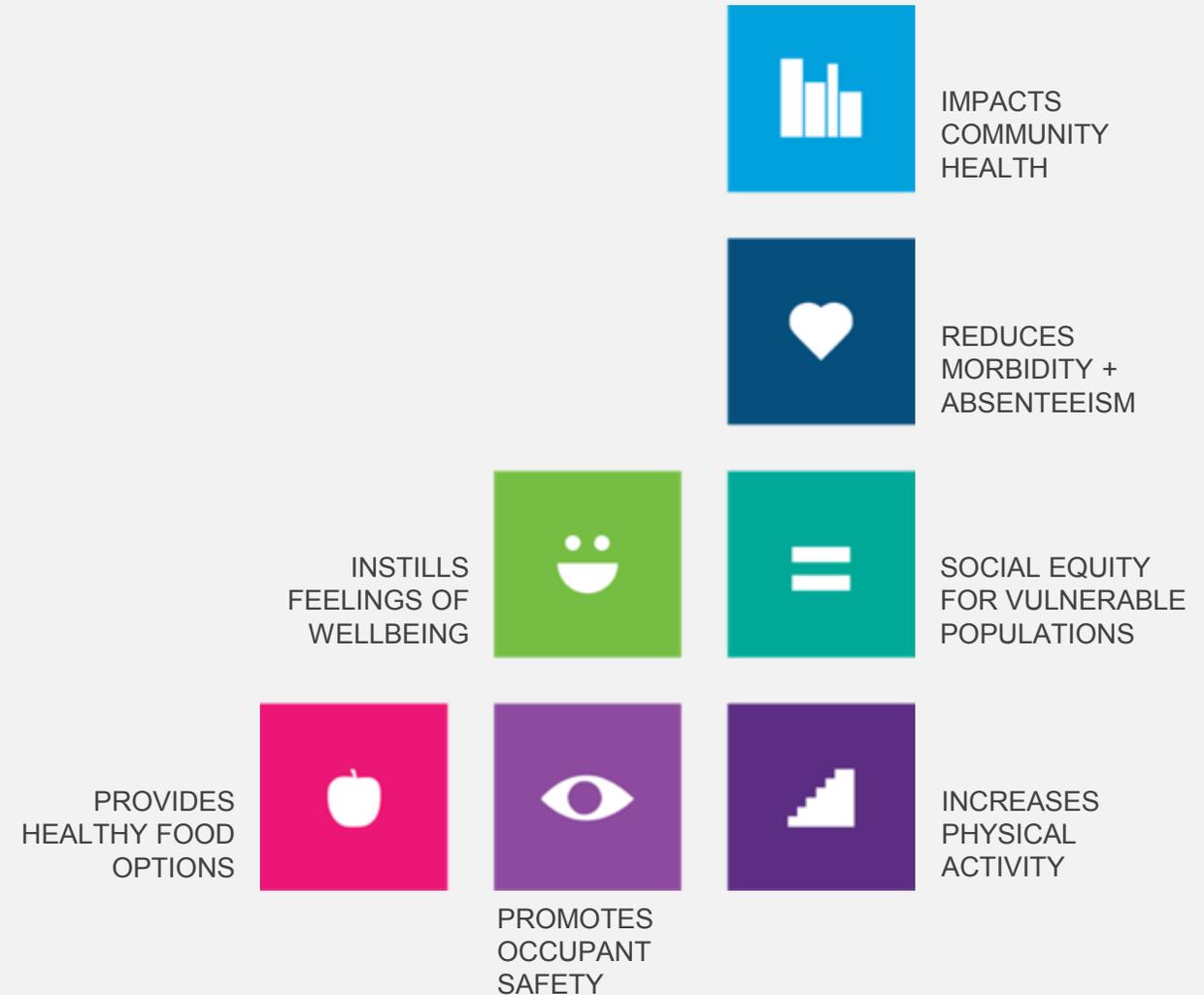


Fitwel has a vision for a healthier future where every building is enhanced to support the wellbeing of its occupants, and support healthy communities.

Health Impact Categories

- 7 Categories
- **Linked by scientific evidence**
- **Stronger impact = more points**
- **Weighted points per strategy supports prioritization**

This robust framework enables for change, over time, as the scientific evidence evolves.



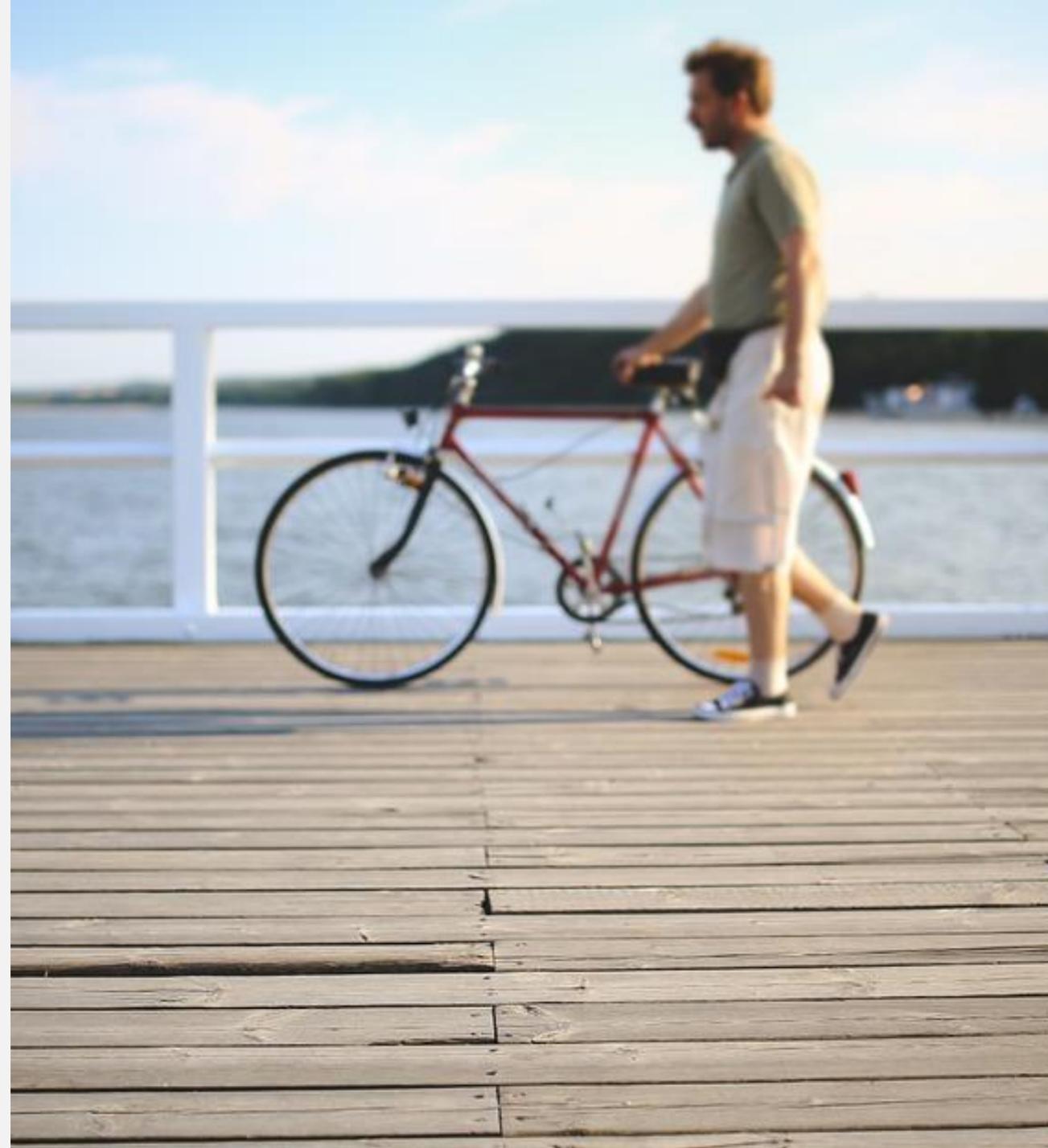
Some examples of specific criteria:

Interior

- Design structure to minimize exterior-sourced noises in dwelling
- Provide operable windows in majority of habitable space

Exterior

- Provide a restorative garden accessible to all residences
- Site less than ½ mile from bike share





**Healthy Housing
Rewards™**

+



A'18 AIA Conference on Architecture 2018
June 21-23, New York City



12% lower Medicaid costs
after moving into affordable
housing designed for health

18% decrease in emergency
department visits



CASE STUDIES

Aria Apartments

Bay Terrace Community & Education Center

Hunter's Point Campus

Superior Court of California, San Benito County

Morgan Street Station

Brooklyn Bridge Park

New Settlement Community Campus

Brooklyn Active Transportation Community Planning Initiative

Zona de Juego (Play Zone)

Gammel Hellerup High School Gymnasium + Multipurpose Hall

Gensler Newport Beach

Greenbridge Master Plan

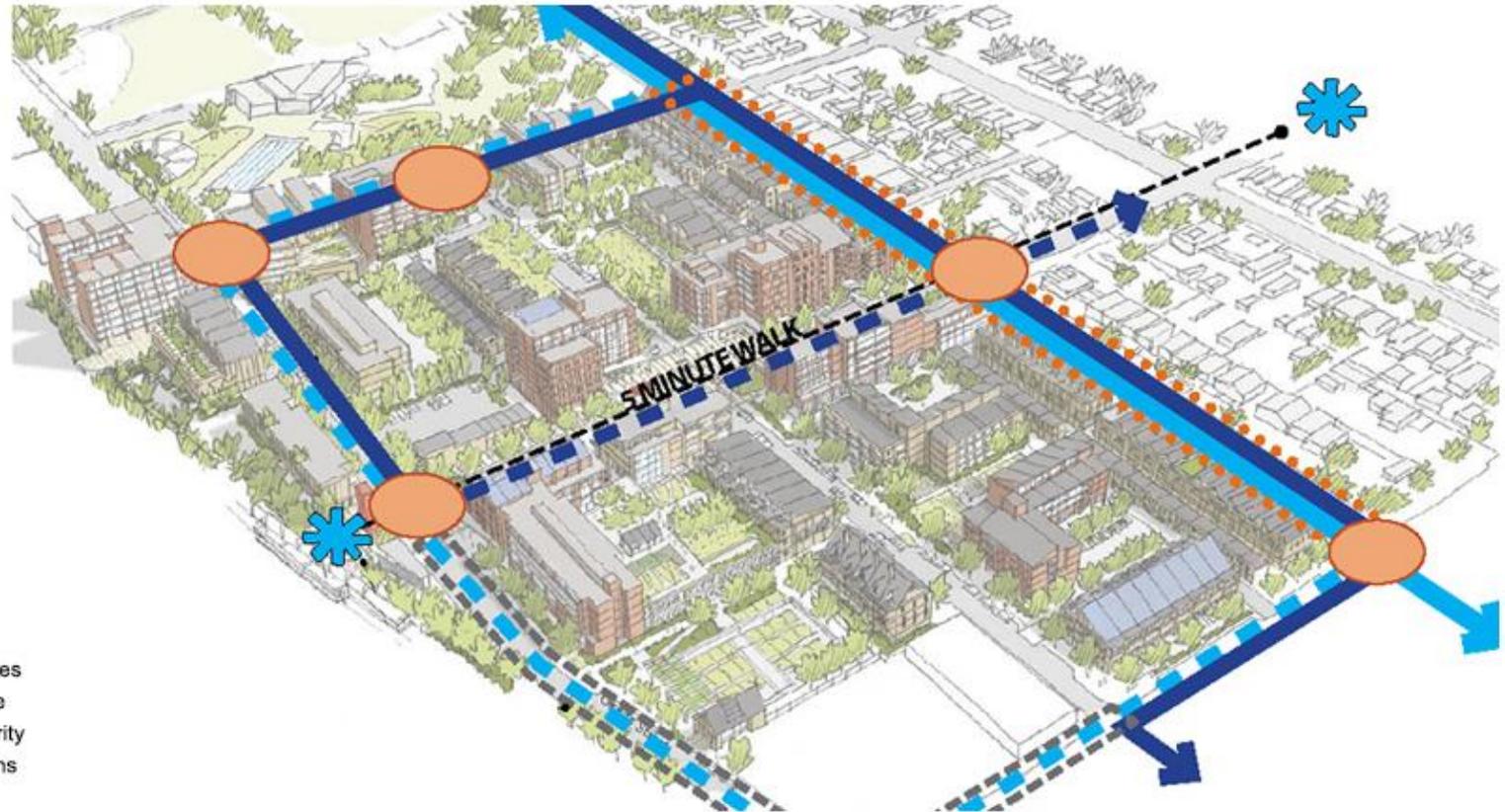
Blue Hole Regional Park

Sephardic Community Center

Mariposa Redevelopment Master Plan and Healthy Living Initiative

Mariposa Redevelopment Master Plan and Healthy Living Initiative

+ SHARE THIS



Legend

- Existing Bike Route
- Existing Bus Route
- Proposed Bike Routes
- Proposed Bus Route
- Traffic Calming Priority
- Pedestrian Attractions

The Mariposa redevelopment recognizes that sustainable, individual health is linked to a healthy environment. The neighborhood was analyzed for health determinants such as connectivity, illustrated above; Image courtesy of Mithun.



In an annual survey, Mariposa residents reported:

- Weight loss
- Decreased diabetes risk factors
- Increased social engagement
- Greater cultural awareness through food

“Sense of belonging”

Activity

- List 3 concepts you have learned today.

Activity

There are 3 THEMES discussed today

1. Health
2. Equity
3. Productivity

Please write down how you can apply this theme in your own practice.

Panel Q&A

Ex: What is one health intervention you can employ in one project?

Thank you!