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Active Design in Practice NYS Health Foundation, June 2015

## **Center for Active Design**



#### **About Us**

The Center for Active Design is an independent, not-forprofit organization committed to transforming design practice to make health a central priority

Our Approach

- Translating health evidence into practical, implementable design strategies
- Innovative partnerships such as ULI
- Embrace diverse perspectives work across public/ private, sectors, disciplines
- Measureable results Recognize power of evidence, data mapping + visualization
- Identify key synergies (sustainability, resiliency, universal design)
- Connect with business priorities (economic development, social equity, public safety, health)
- Celebrate success and learn from each other

## **History of Health and the Built Environment**

- + overcrowded cities
- + inadequate public health systems

## 1800





Cities used design + infrastructure to improve environmental problems, which led to a reduction in deaths from infectious diseases.

New York City examples:

- Infrastructure: Croton Aqueduct; subway system
- Planning & Design: Central Park •
- Policy: Tenement House Act; Zoning Ordinance



#### History of Health and the Built Environment





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# Overview of Active Design Strategies

## Active Design: Key Concepts











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## **Active Transportation**

#### Dynamic pedestrian environment, mix of land uses

#### **Streetscape elements:**

- Trees
- **Benches**
- •
- Lighting Building facades •





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## **Active Transportation**





Traffic calming elements Complete streets Wayfinding signage

Cycling infrastructure:

- Continuous, protected bike lanes
- Ample bike parking and storage
- Bike share programs

## **Active Recreation**

Convenient, accessible spaces that incorporate:

- Trees
- Lighting
- Water fountains
- Seating

Programming for local cultures, and a range of ages and abilities



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## **Active Recreation**

Multi-purpose spaces foster creativity

**Opportunities for active and passive recreation** 

**Cleanliness and safety** 



## **Food Access**





#### **Proximity to:**

- Supermarkets
- Farmers markets
- Healthy food retail

#### Community Supported Agriculture Gardening opportunities

## **Food Access**

Cafeteria design Cooking Classes with healthy food Water fountains with bottle refill





## **Active Buildings**

#### Incorporate:

- Open floor plan
- Views between floors
- Enticing circulation pathways

Design for a range of working styles





## **Active Buildings**

#### Stairs designed to invite users

- Daylighting
- Artwork
- Finishing

#### Motivational signage placed at points of decision



#### **Supporting Active Design and Safety**





#### **Natural Surveillance (CPTED)**

Lighting – maintained and at a pedestrian scale

Landscaping – uniform plots, human scale plantings

Fences – Not too tall and allow people to see in

Windows – overlook open spaces

## **Supporting Active Design and Safety**





#### **Territorial Reinforcement – CPTED**

Limit Points of entry into courtyard / playgrounds

Provide clear transitions between public and private space

When designing playgrounds that are separated from the public right of way, include ground markings that indicates dedicated areas for recreation.

# Maintenance and Management – CPTED

Allows for the continued safe use of the space for people of all ages.

## **Active Design and Safety**





#### **Activity Support– CPTED**

Passive and active efforts to promote the presence of responsible pedestrians and users in the open space.

Programming

Clear Signage for use

Art that reflects the local community

Larger areas for multiple forms of recreation

Access to tap water

Spaces that respond to climate – shade, shelter, lighting

Use of natural terrain to encourage children's play

## **Case study - Active Design and Safety**





Use of greenery to create separate "rooms" out of a single large space.

Seating opportunities coupled with active track space allows for multi-generational use.

Open space in the middle allows for both creative group play and community event space.

Art work surrounding space engages community.

A mix of equipment and open unprogrammed space allows for different types of use.

## **Supporting Active Transportation and Safety**





#### Safety is Fundamental

A systematic review of 80 studies on child pedestrian injury:

- Speed is the principle risk factor for collisions and fatalities
- **Traffic calming** is consistently associated with more walking and fewer pedestrian injuries.<sup>1</sup>

#### NYC Neighborhood Slow Zones:

- 10-15% decrease in speeds
- 31% reduction in vehicle injuries

<sup>&</sup>lt;sup>1</sup> Rothman, Linda, et al. "Walking and Child Pedestrian Injury: A Systematic Review of Built Environment Correlates of Safe Walking." Injury Prevention 10.1136 (2014): BMJ. Web 4 Feb. 2015.

## **Active Recreation Research**

#### **Public Space**

- Creates opportunities for social interaction and physical activity<sup>1</sup>
- Positive influence on retail sales<sup>2</sup>

<sup>1</sup> J. Aaron Hipp, Amy A. Eyler, Susan G. Zieff, and Michael A. Samuelson (2014) Taking Physical Activity to the Streets: The Popularity of Ciclovía and Open Streets Initiatives in the United States. American Journal of Health Promotion: January/February 2014, Vol. 28, No. sp3, pp. S114-S115.

<sup>2</sup> New York City Department of Transportation. "Measuring the Street: New Metrics for 21<sup>st</sup> Century Streets." October 2012.





## **Research Findings**





#### **Thinking Long Term**

#### Change can take time

- UK study found new walking & cycling routes showed minimal increase in use after 1 year, but significant increases at 2 years.<sup>1</sup>
- A crash is (hopefully) a relatively rare event. Evaluations should capture accident trends 5 years before, and 2 years after an intervention. <sup>2</sup>

<sup>1</sup> Anna Goodman, Shannon Sahlqvist, David Ogilvie, and on behalf of the iConnect Consortium. New Walking and Cycling Routes and Increased Physical Activity: Oneand 2-Year Findings From the UK iConnect Study. American Journal of Public Health: September 2014, Vol. 104, No. 9, pp. e38-e46.

<sup>2</sup> Li Chen, Cynthia Chen, and Reid Ewing. The Relative Effectiveness of Pedestrian Safety Countermeasures at Urban Intersections – Lessons from a New York City Experience. Transport Policy: 2014, Vol. 32 pp. 69-78.



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Implementation: Case Studies

## **Celebrating Success: Case studies**

**Excellence Awards** highlight projects that incorporate Active Design Strategies, and are particularly innovative and replicable.

#### Featured case study:

#### **Queens Plaza**

The Center for Active Design works with the **Partnership for Healthier America** to promote active design strategies in affordable housing.

Featured case study:

Arbor House, Bronx, New York







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## **Case Study: Queens Plaza**







Queens Plaza has shifted NYC's perception of public spaces, now recognizing them as sustainable urban infrastructure that are capable of creating vibrant neighborhoods

Challenges:

Rezoning

Harsh impermeable landscape

Lack of lighting

Lack of crosswalks

Visual chaos – elevated train plus 16 lanes of traffic

Extensive underground utility lines creating conflicts for storm water management and landscaping

## Case Study: Queens Plaza

#### Intervention

Human Experience – trees for shade, improved air quality, noise mitigation Corridor for social exchange and economic development





## **Case Study: Queens Plaza**

#### Intervention

Pedestrian safety - lighting, crosswalks, sidewalks, separation of space with bikes Community building - public art in precast elements







# Implementing active design strategies into affordable housing

Blue Sea Development Company is committed to incorporating Active Design strategies, using the **Partnership for Healthier America** guideline checklist



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#### **Active Transportation**

- Inviting stairwell
- Pedestrian focused sidewalk





#### **Active Recreation**

- Indoor and outdoor facilities for a range of ages and accessibility
- Protected courtyard





#### **Healthy Food Access**

- Rooftop hydroponic farm
- CSA for local community
- Food related programming





#### **Important Takeaways**



- Embrace diverse perspectives work across agencies, sectors, disciplines
- Recognize power of data mapping + visualization
- Identify key synergies (sustainability, resiliency, universal design)
- Adapt to shifting priorities (social equity, public safety)
- Measure results and celebrate
  successes
- Sustain the conversation through regular conferences, workshops

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# Thank You!

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18