

# denver harbor

healthy community design

ideas book



## DENVER HARBOR: Healthy Community Design Ideas Book

Community Design Resource Center  
University of Houston  
in partnership with the  
Community Transformation Initiative  
through the Houston Department of  
Health and Human Services

Project Director:  
Susan Rogers

Publication and Research Assistants:  
Rose Lee  
Claudia Ponce  
Mirna Santillan  
Ricardo Sepulveda

Research Assistant:  
Ruqiya Imtiaz-uddin

**Contact:**  
Susan Rogers, Director  
Community Design Resource Center  
Gerald D. Hines College of Architecture  
University of Houston  
122 Architecture Bldg.  
Houston, TX 77204-4000  
713.743.2403  
skrogers@central.uh.edu



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# Introduction





# Introduction

Community Transformation is a movement taking place across the nation that is changing the way we look at health and prevention of chronic diseases. Health in All Policies (HiAP) is a strategy to improve the health of the population by addressing factors outside the health system that have important health effects. These factors relate to our common life: what we eat and drink, where we live, how we work and how we spend our leisure time which may have positive or negative effects on our health.

The HiAP approach has gained support from health advocates in the United States. The Institute of Medicine (IOM) acknowledges that policies made outside of the health sector shape the environments people live in and the choices they make. They note that some public health problems are sufficiently complex that they are best tackled not just through traditional health policy but also through policies and issues that affect the social determinants of health such as schools, zoning, food advertising, public transportation, parks, workplaces, restaurants, and tax policy. The IOM recommends implementing a HiAP approach in order to more fully address the determinants of health, better coordinate efforts across sectors, and more effectively use public resources.

The National Prevention Strategy, published in June 2011, calls for increased coordination between government agencies, as well as partnerships with community organizations, businesses, healthcare providers, and others. The National Prevention Strategy prioritizes work around four strategic directions: creating healthy community environments, empowering individuals to make healthy choices, integrating clinical and community preventive services, and reducing health disparities. This can be accomplished, for example, through ensuring more neighborhoods have better access to fruits and vegetables, opportunities for physical activity, active transportation options, and clean air.

The Community Transformation Initiative through the Houston Department of Health and Human Services has promoted a Health in All Policies approach in its recent efforts. This project in collaboration with the University of Houston's College of Architecture and the Community Design Resource Center (CDRC) represents one current example of this approach.

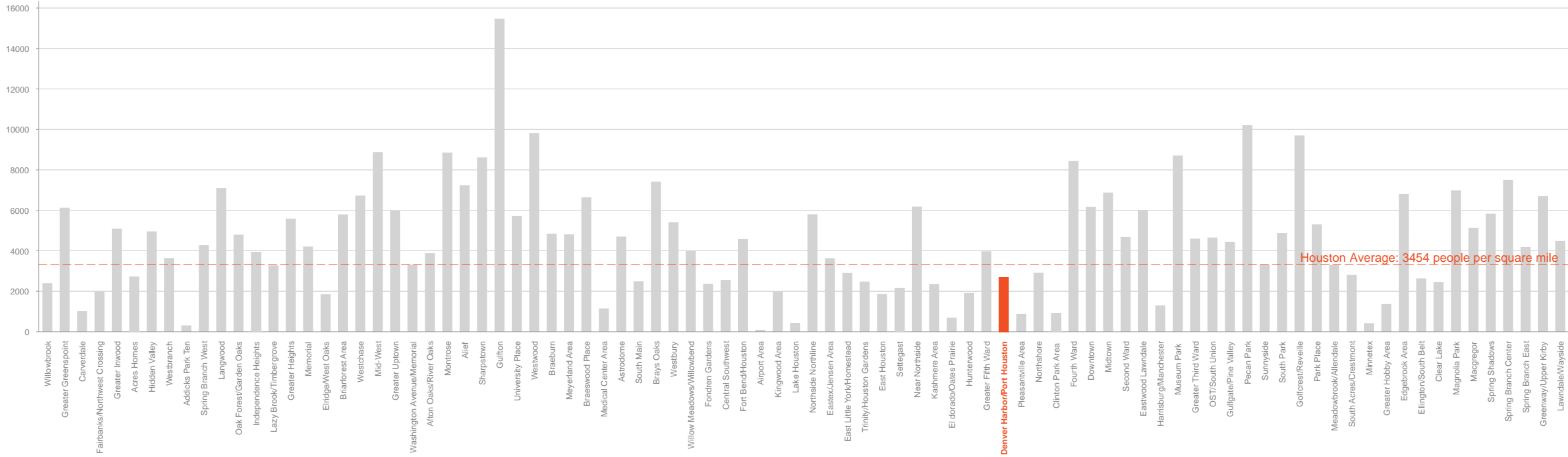
Our partnership with the College of Architecture and the CDRC has been mutually beneficial. For example, students and faculty at the College of Architecture and CDRC have integrated ideas about healthy communities into a comprehensive approach to community change. At the same time, the Community Transformation Initiative team has an increased understanding of the built environment and has gained new insights into the challenges and opportunities for health impact planning. Another key element of our collaborative approach has been to actively engage community leaders and stakeholders in the process, bringing community voices to the table as partners in our efforts to imagine and create healthy communities. This has included a series of community meetings and listening sessions held in each neighborhood. Finally, experts and professionals from a diverse array of disciplines, including community development, public health, urban planning, architecture, and non-profit leaders shared their expertise with community stakeholders at a day long community design charrette. In the end our goal has been to create a collaborative and comprehensive approach to community health and community design that is based in partnership, and works across disciplines, policies and scales to generate real solutions.

# Context

# Context



BELOW: Population Density by Super Neighborhood, 2010  
BELOW, Right: Denver Harbor Location Map

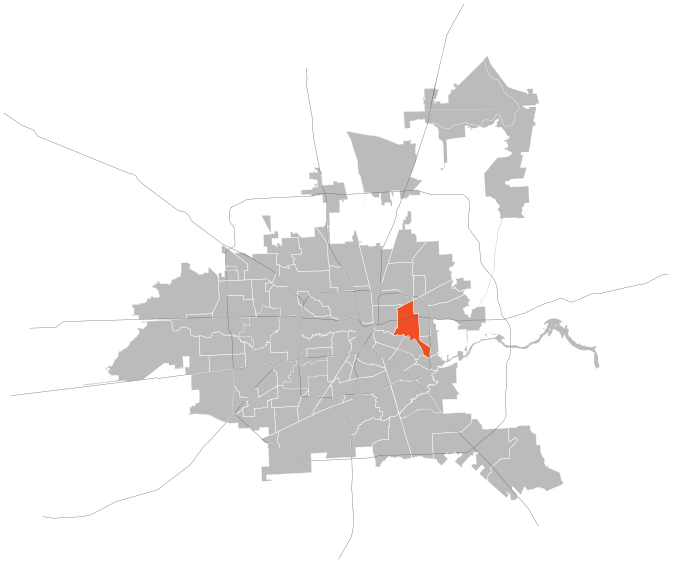


Across our cities leaders, organizations, and institutions are looking for new ways to achieve sustainable and comprehensive community development. The renewed interest in a holistic approach is reminiscent of the original community development legislation passed in 1968 that focused simultaneously on political empowerment, education, the arts and culture, housing and economic development, and social equity and opportunity. In addition to these goals new tools and strategies for building healthy communities are increasingly sought out as health care costs and obesity rates skyrocket.

Today, it is vital that we find new ways to work across disciplines, scales, and issues to develop innovative strategies for positive change in our communities. This means looking for new models of economic development such as co-operatives to improve food security, finding new ways to develop quality affordable housing, for example by mixing models and programs, creating new opportunities for us to come together as citizens, not as consumers, identifying existing skills and resources in our

communities as a means to shape and create new jobs, enhancing access to open spaces, recreation, and trails as means to build healthier communities, and working towards achieving sustainability in its fullest and most meaningful definition—which includes achieving a balance between equity, economy, and ecology in all that we do.

Participatory, proactive, and asset-based community processes have the potential to point us towards opportunities for meaningful and sustainable change that will create thriving and healthy communities. To this end the strategies included in the Denver Harbor Healthy Community Design Ideas Book have been developed over the course of a year and based on interdisciplinary problem-solving, community engagement and collaboration. Nearly 100 people from diverse backgrounds, including students, residents, stakeholders, and professionals have been engaged in the process. The publication is intended to be a guide, or toolbox, for change—as well as point to potential strategies and tactics in communities across the country.







Houston, the fourth largest city in the U.S., is a study in contradictions. It is simultaneously diverse and divided, connected and isolated, sprawling and dense, rich and poor, urban and rural. In Houston, and across the nation, health is directly related to the socio-economic conditions of our neighborhoods. The Centers for Disease Control and Prevention (CDC) states that “the socioeconomic circumstances of persons and where they live and work strongly influence their health.”

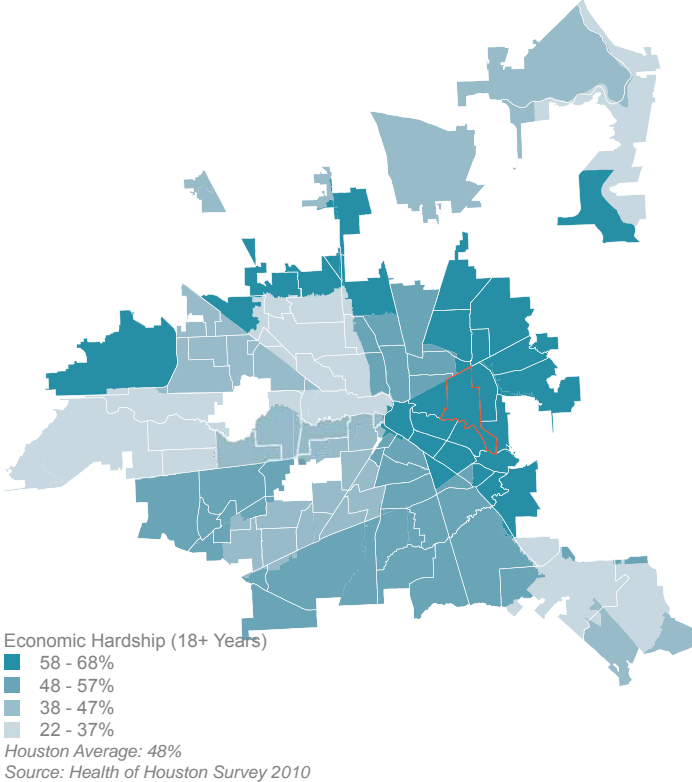
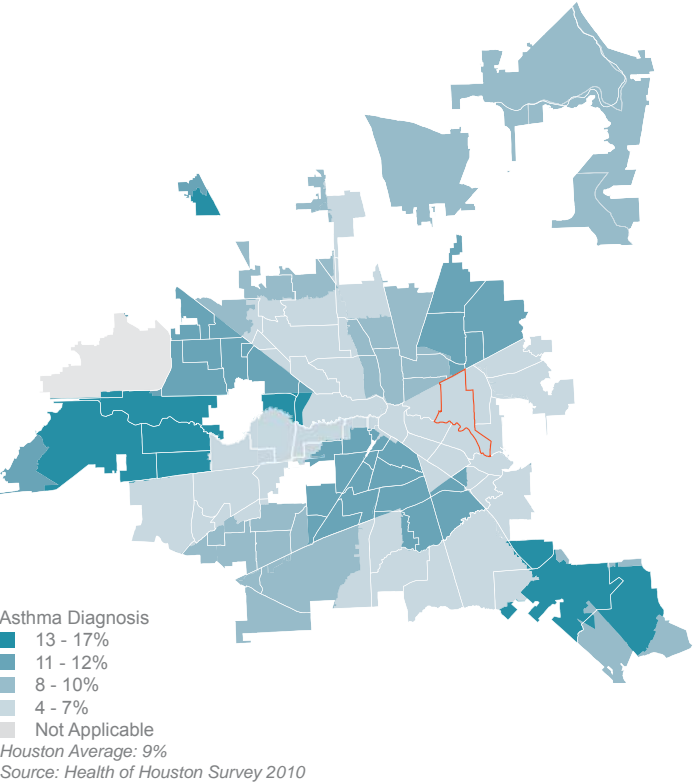
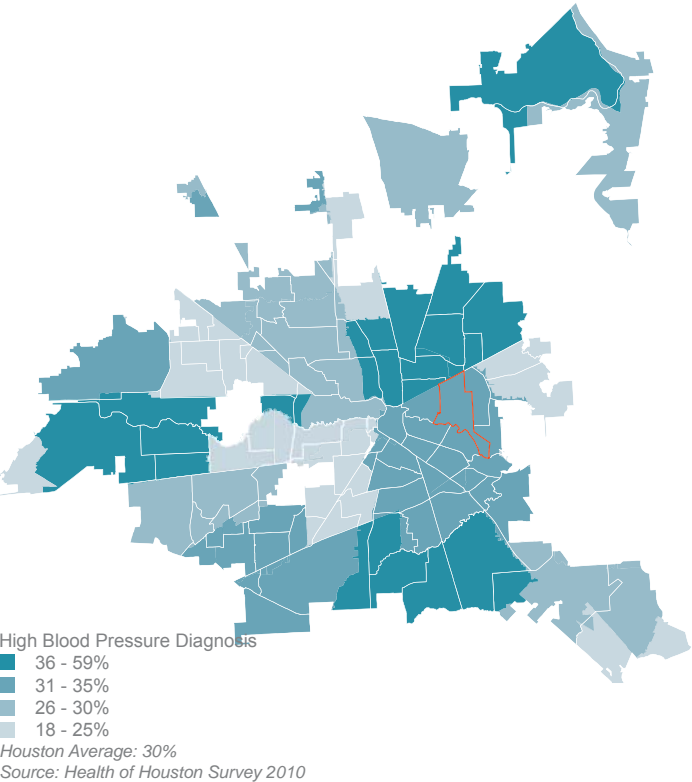
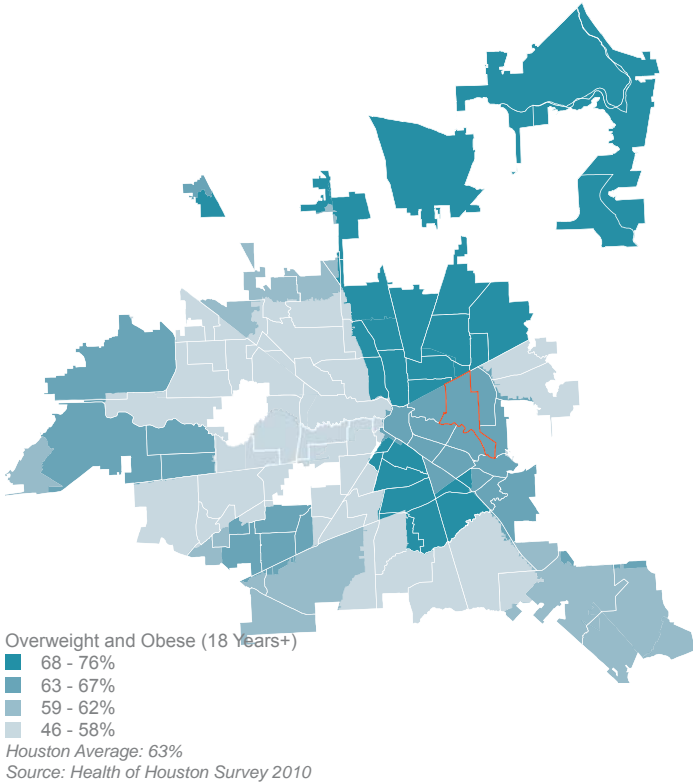
Houston, while incredibly diverse, is also profoundly divided by income, education, and opportunity. This division is reinforced by ethnic and gender disparities that continue to define inequality in the city. The socioeconomic conditions that divide us have also created geographic disparities where some neighborhoods are rich with resources and others are without even the most basic of necessities. Finally, the neighborhoods that face the most

severe economic hardships are more often than not the same neighborhoods that have significant health challenges.

Community design has a role to play in advocating for and creating healthy communities. The first step is to understand and illustrate the qualities and conditions that exist in our neighborhoods and identify both the assets and constraints. The second step is to understand the factors that design has the power to impact. For example, design can influence the quality of public spaces, creating attractive and useful places for exercise, recreation and play. Design can impact safety by working to ensure that places are active, visible, and free from hazards. Design can transform our neighborhoods, by advocating for development that is compact, walkable, and affordable. Design can help to create alternative networks for pedestrians and cyclists. And finally, design has the power to innovate, creating new models for

partnerships and processes that have the potential to transform neighborhoods.

As health care costs continue to escalate and decades of gains in longevity are at risk because of sedentary and unhealthy lifestyles there is a new emphasis on the relationship between where we live and our health. This emerging emphasis points to the need for new ways of thinking about change in our neighborhoods, and the need for a new process that departs from standard ideas about planning and design to create a more inter-disciplinary and dynamic process which incorporates a comprehensive vision for community health. Healthy communities are a goal across the nation, and a hope for Houston. By focusing on creating healthy communities we can begin to move toward a goal of ensuring that all of our residents have the opportunity for healthy and productive lives.





# Health and Community Design

The built environment, including our homes, businesses, parks and green spaces, infrastructure, transportation networks, and public buildings, shape our neighborhoods. These same factors impact opportunities for walkability, economic opportunity, recreation, play, safety, social cohesion and health—in other words these factors are both determinants of the health of a neighborhood and determined by the health of a neighborhood.

As a result the neighborhoods where we live impact our chances to live healthy lives, rich with opportunities. In cities across the U.S., including Houston, the distribution of resources and the quality of our built environments, public spaces and neighborhoods are not equal. The socio-economic context of our neighborhoods— income, race, housing, education, and employment—is more often than not directly correlated to the health of the people that call them home. Some neighborhoods have plentiful fresh food options while others are food deserts, some neighborhoods have well-maintained parks while others do not, and some neighborhoods thrive while others decline.

The goal of this project has been to identify the determinants of health that can be impacted by community design. Much work has been done to this end over the last decade, as more and more resources are expended on addressing existing individual health problems, instead of understanding how the larger environment effects health issues and proactively working to ensure that all of our communities and the people who call them home have an opportunity to be healthy. At the national level, the Healthy People 2020 program includes two broad goals that can be addressed through community design. First, creating social and physical environments that promote good health for all. Second, promoting quality of life, healthy development, and healthy behaviors across all life stages.

Seven strategies for building healthy communities were identified. The strategies include: Food Security, Education, Environmental Justice, Neighborhood Stability, Economic Opportunity, Safety, and Public Spaces and Amenities. Each strategy is defined and detailed on the pages that follow, including the potential impacts.

"Where people live affects their health and chances of leading flourishing lives"

World Health Organization

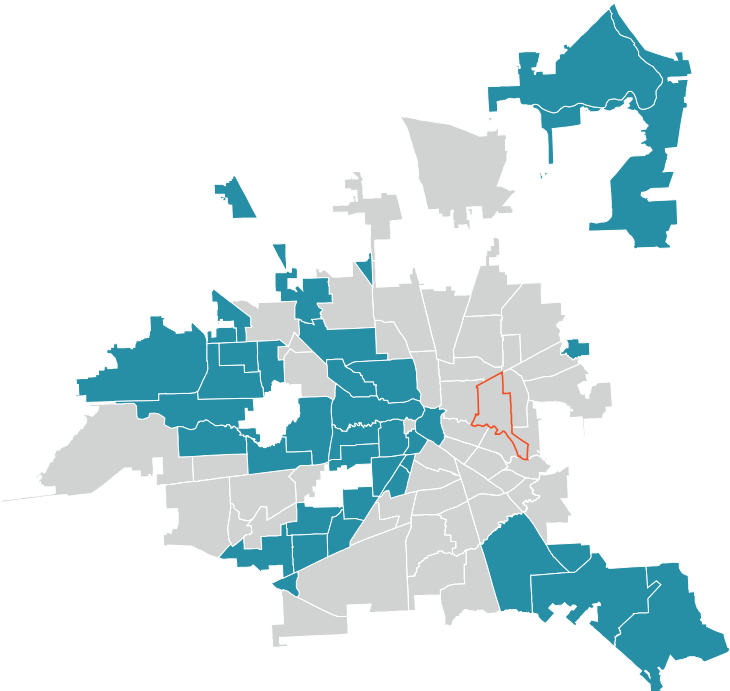
## ECONOMIC OPPORTUNITY

Healthy communities depend on healthy economies, equity, and opportunities to succeed, including:

- Employment opportunities
- Access to employment resources, such as computers, job training and learning opportunities
- Wealth building opportunities such as home ownership
- Local businesses
- Entrepreneurial opportunities
- Access to banking services

## POTENTIAL IMPACTS

- Reduced Stress
- Improved Personal Health
- Greater Equity and Family Wealth
- Safer Neighborhood Greater Social Cohesion
- Improved Property Values



Median Household Income (2010)  
■ Above Median  
■ Below Median

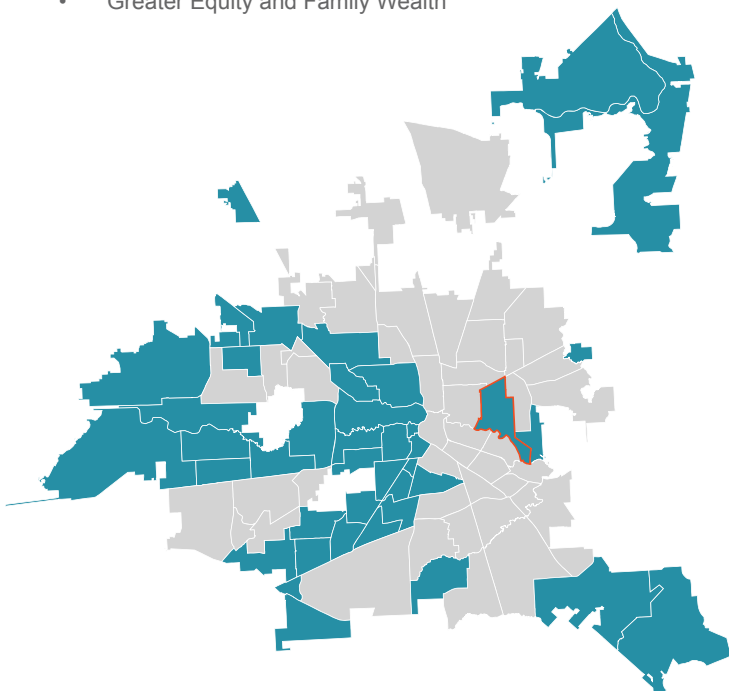
## EDUCATION

Education is the foundation for our future, ensuring quality school environments and lifelong learning opportunities enhances economic success and community health, including:

- Schools that are the center of communities, with shared spaces, resources and programs
- Multi-generational learning opportunities
- Quality after-school programming

## POTENTIAL IMPACTS

- Increased Physical Activity
- Reduced Obesity
- Improved Personal Health
- Community Activation
- Safer Neighborhood
- Greater Social Cohesion
- Economic Prosperity
- Greater Equity and Family Wealth



Educational Attainment (2010)  
Percent of Population over 25 years  
With a High School Diploma  
■ Above Houston Average (74%)  
■ Below Houston Average

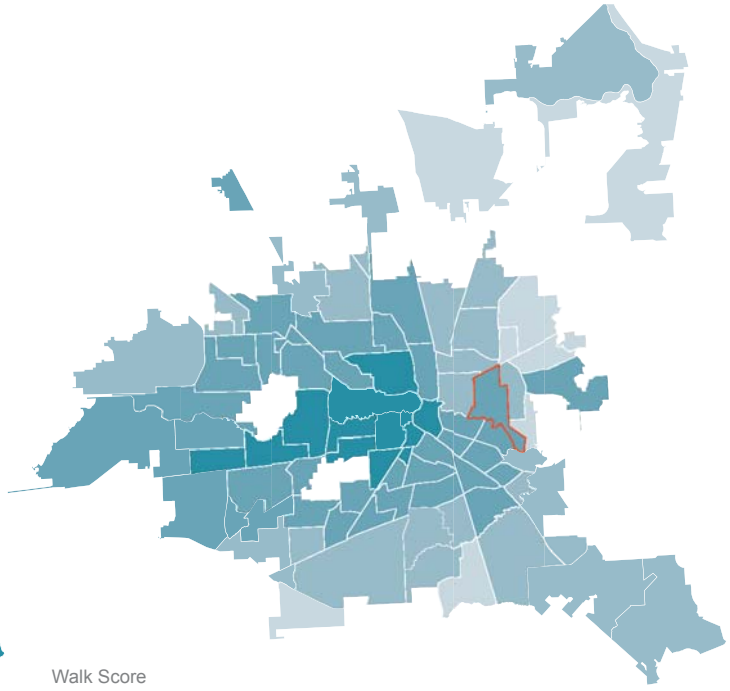
## ENVIRONMENTAL JUSTICE

A neighborhood free from environmental hazards is a healthier community, including:

- Accessible waste and recycling systems to eliminate litter and dumping
- Freedom from pollution, including hazardous air, soils and industries
- Elimination of blight and abandoned or hazardous properties
- Transit options that eliminate air pollution

## POTENTIAL IMPACTS

- Improved Personal Health
- Community Activation
- Reduced Stress
- Improved Property Values



Walk Score  
■ Walker's Paradise  
■ Very Walkable  
■ Somewhat Walkable  
■ Car Dependent  
■ Extremely Car Dependent

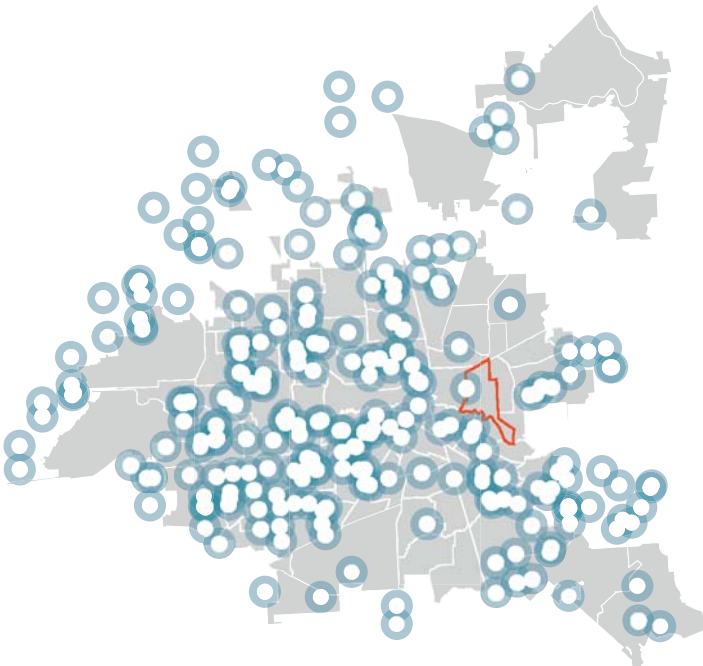
**FOOD SECURITY**

Creating neighborhoods where the healthy choice is the easy choice begins with the basics, access to healthy food, including:

- Convenient access to fresh, affordable, and nutritious foods, whether at nearby grocery stores, community gardens, or local farmers markets
- Healthy restaurant options
- Limited fast food, liquor and convenient stores
- Urban farming and garden programs
- Nutrition and cooking classes

**POTENTIAL IMPACTS**

- Healthy Eating
- Increased Physical Activity
- Reduced Obesity
- Improved Personal Health
- Greater Social Cohesion



Map of Grocery Stores (2011)

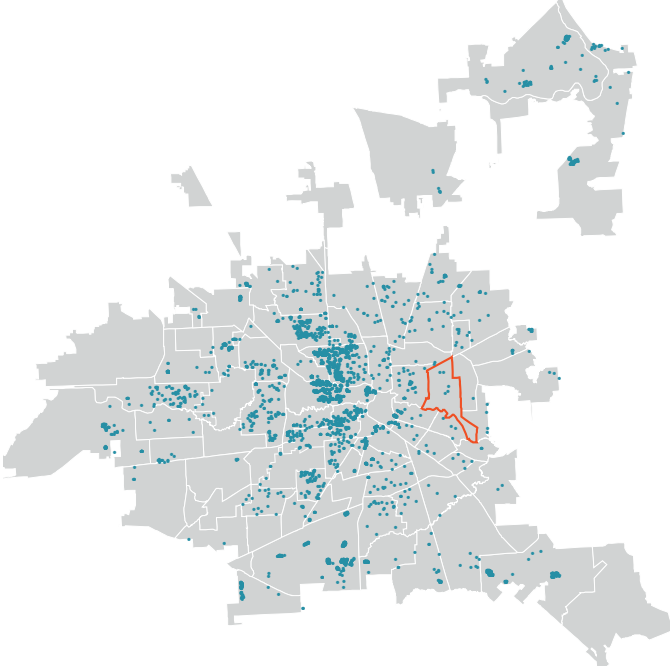
**NEIGHBORHOOD STABILITY**

The strength and stability of a neighborhood impacts the health of residents through social engagement, ownership and empowerment, including:

- Building community pride and identity
- Engaging residents to invest in their neighborhood
- Locally organized civic events to bring people together
- Multi-generational activities, especially at schools or senior centers
- Programs that celebrate the history and future of a neighborhood

**POTENTIAL IMPACTS**

- Community Activation
- Safer Neighborhood
- Greater Social Cohesion
- Increased Community Pride
- Reduced Stress
- Improved Property Values



Single-Family Housing Permits (2012)

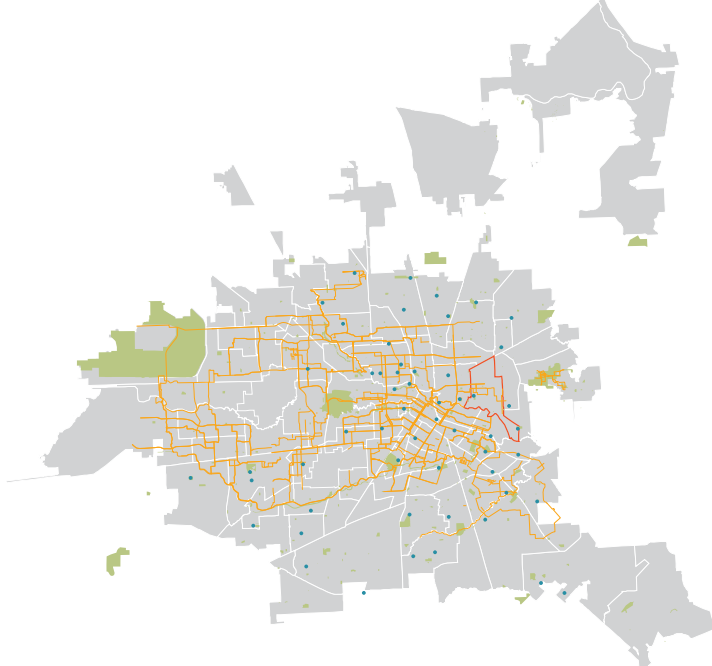
**PUBLIC SPACES AND AMENITIES**

Neighborhoods designed to promote healthy lifestyles have quality public spaces and the infrastructure to make it easy to walk or bike as part of a daily routine, including:

- Complete Streets (streets designed for transit, pedestrians, and cyclists)
- Greenery and shade along pedestrian routes
- Wide sidewalks
- Dense, mixed-use and mixed-income neighborhoods
- Accessible libraries, clinics, parks, schools and recreational centers
- Safe routes to schools

**POTENTIAL IMPACTS**

- Increased Physical Activity
- Reduced Obesity
- Improved Personal Health
- Community Activation
- Safer Neighborhood
- Greater Social Cohesion



Public Amenities  
Parks  
Bike Routes  
Community Centers

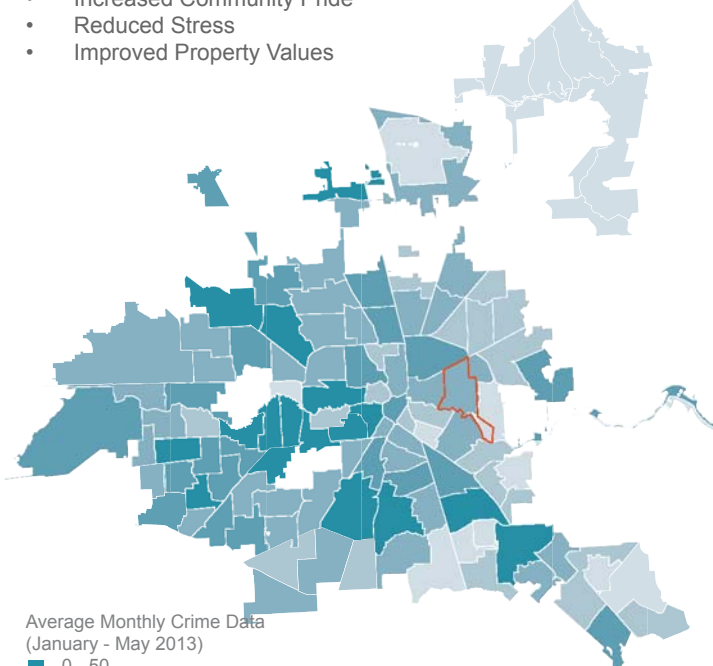
**SAFETY**

A healthy community is a safe community, and safety is influenced by how well a neighborhood is cared for, including:

- Freedom from crime and violence
- Adequate street lighting
- Freedom from stray animals
- Resident led safety programs, for example Neighborhood Watch
- Well maintained vacant lots and vacant homes
- No littering or dumping

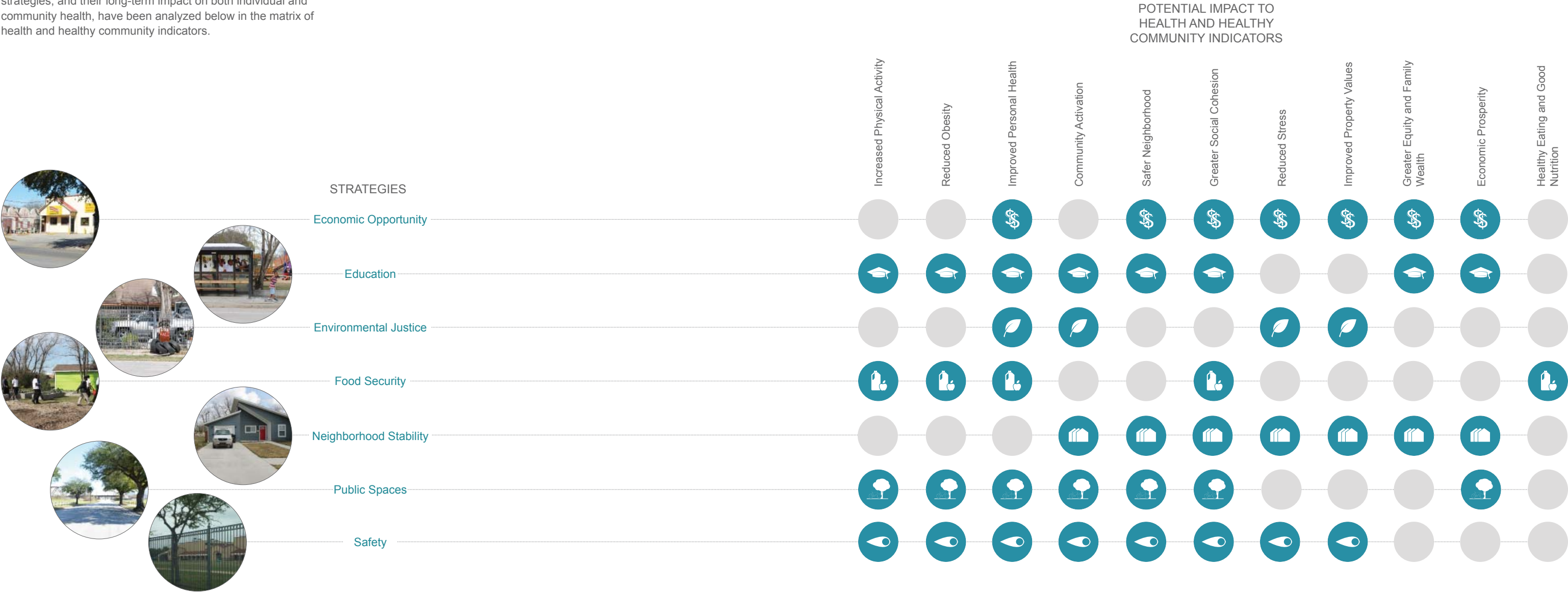
**POTENTIAL IMPACTS**

- Increased Physical Activity
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- Improved Property Values



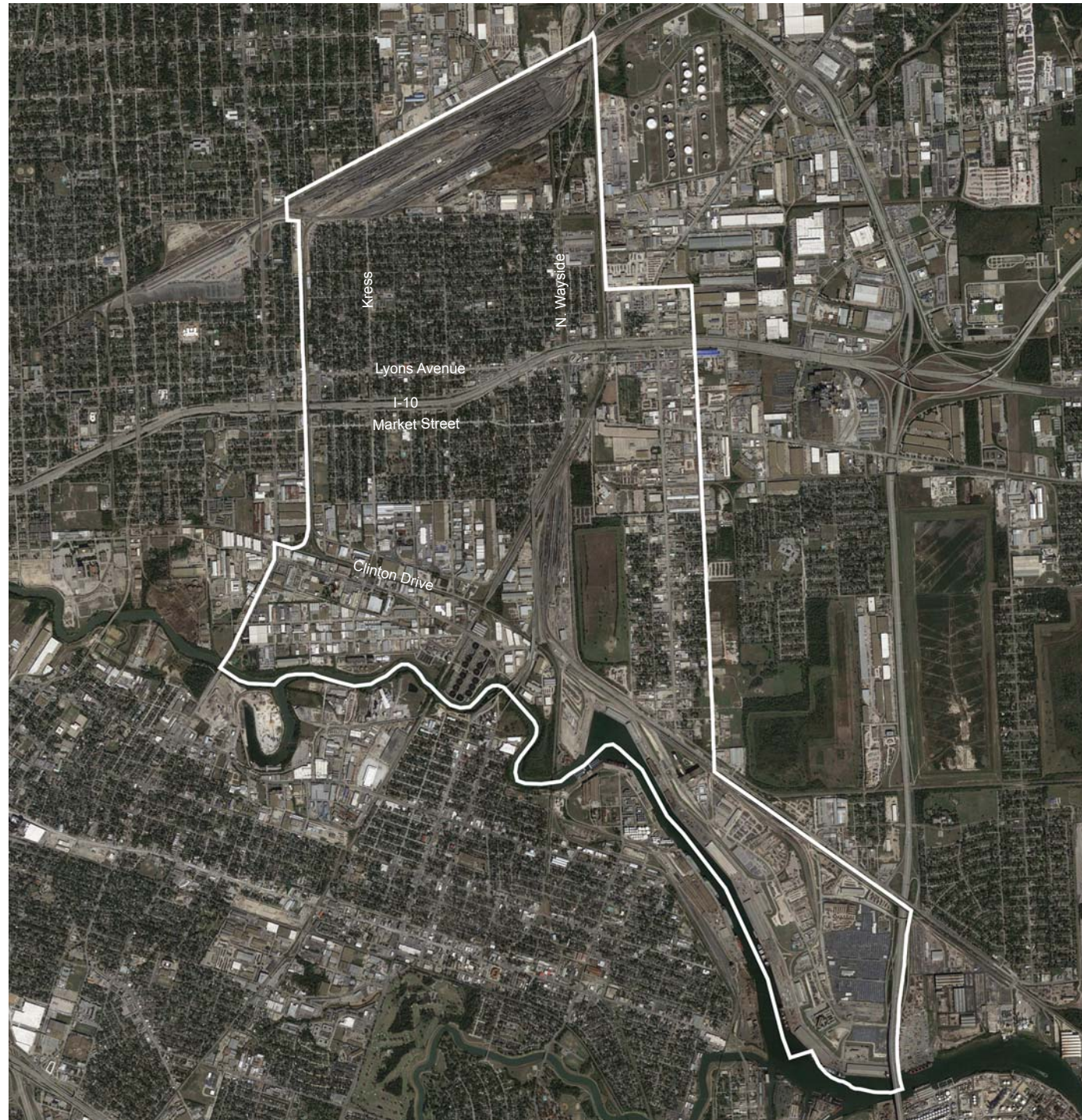
Average Monthly Crime Data  
(January - May 2013)  
0 - 50  
51 - 100  
101 - 150  
151 - 200  
200 +

The seven healthy community design strategies address economic opportunity, education, environmental justice, food security, neighborhood stability, public spaces, and safety. The seven strategies focus on building a healthy community by increasing physical activity, social cohesion, economic prosperity, equity and healthy eating, while reducing obesity and stress. The seven strategies, and their long-term impact on both individual and community health, have been analyzed below in the matrix of health and healthy community indicators.

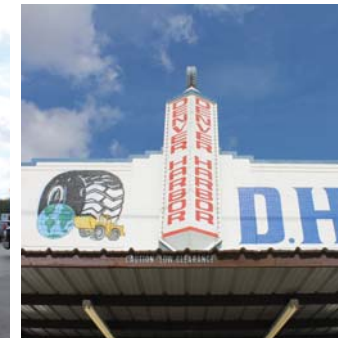
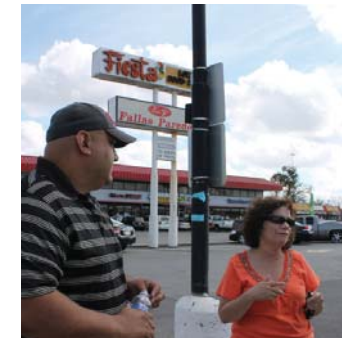
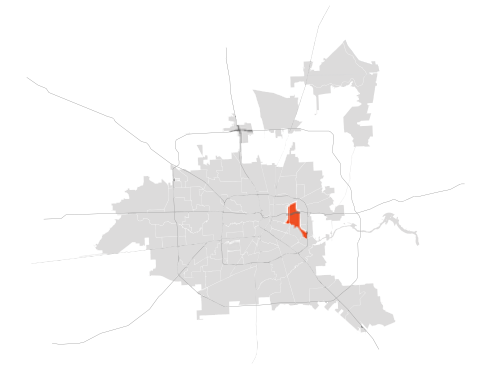


# Denver Harbor





# Denver Harbor



Denver Harbor is a historic and close-knit community that developed primarily in the 1940s. Located on the east side of Houston, just inside Loop 610 and north of the Ship Channel, the neighborhood grew up alongside the industries associated with the Port and adjacent rail and transportation lines. As a result, industrial land uses surround the neighborhood on three sides—the north, east, and south. The neighborhood's boundaries are Liberty Road on the north, Port Houston Street on the east, Buffalo Bayou on the south, and Zindler Street on the west.

The neighborhood is divided by Interstate 10 which was constructed in the 1960s. While the highway cuts through the center of Denver Harbor, the community's identity has remained strong. The core residential area spans the freeway. The neighborhoods are characterized by small bungalow type homes and a regular block pattern. Lyons Avenue, just north of Interstate

10, is the prime commercial corridor and is home to a diversity of local businesses and national franchises. Denver Harbor Park is the center of activity in the neighborhood and hosts the Little League games which draw hundreds of spectators. Originally a blue collar Anglo neighborhood, the area is now predominantly Hispanic.

Over the last several decades the neighborhood has experienced population loss, however, the neighborhood is stable and residents share a deep pride in the community. The current challenges in the neighborhood are similar to those of many Houston communities, including illegal dumping, stray dogs, aging infrastructure, and air quality. Developing strategies to improve connectivity and walkability in the neighborhood as a means to activate the area will contribute to the ongoing health of residents and stability of the neighborhood over time.



# History

The Denver Harbor community was first settled in the 1890s and developed slowly over the next 60 years. In the 1940s the area experienced substantial growth, and the population nearly tripled between 1940 and 1950. The majority of housing in the area was built during this time. In 1929 the City of Houston annexed Denver Harbor. Because of the neighborhood's proximity to the Ship Channel and numerous major rail lines, the area was settled by predominantly blue collar residents. As a result, the neighborhood is characterized by small bungalow and woodframe homes organized in a regular block pattern.

In the 1960s Interstate 10 was constructed through the center of the Denver Harbor neighborhood. Unlike other areas of

Houston, the construction of the freeway did not catalyze new commercial development along the edges, nor does the freeway have the typical feeder roads in this area. In many ways these factors have allowed Lyons Avenue, the historic shopping and entertainment street, to remain the primary commercial corridor in the neighborhood. Lyons Avenue is home to many important landmarks, such as the former Globe Theater (which is now a tire shop) and the original Fire Station (which is currently vacant).

The Denver Harbor neighborhood has remained very much as it was in the 1960s.



Former Globe Theater  
Lyons Avenue



1953 Aerial



1978 Aerial



1995 Aerial



2013 Aerial



**Neighborhoods in Denver Harbor are densely developed and there is very little vacant land. As a result, innovative strategies for the public realm are necessary to ensure the continued health and stability of the community.**



ABOVE: Figure Ground  
RIGHT: Photo, Denver Harbor Park

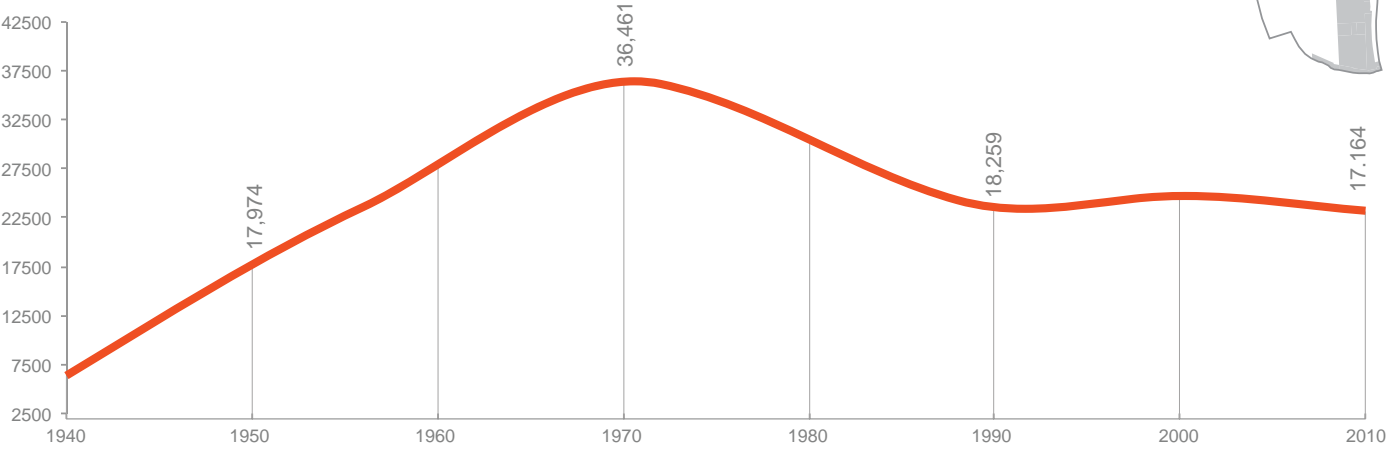
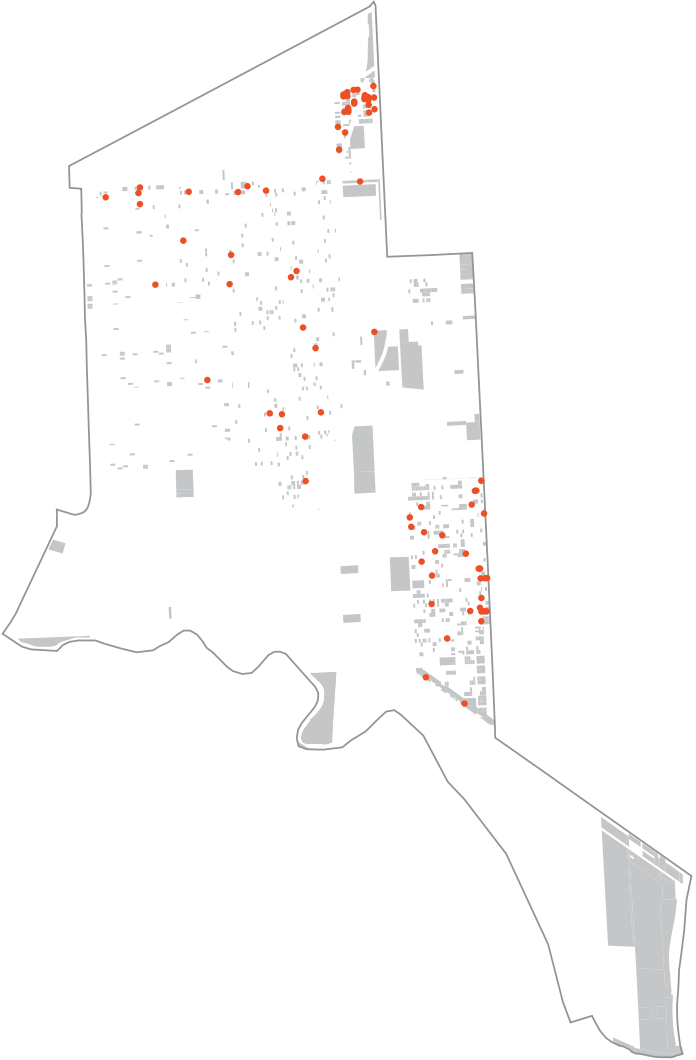
## Context

The Denver Harbor/Port Houston Super Neighborhood is 6.4 square miles in area. The neighborhood nearly tripled in population between 1940 and 1950, when many of the homes were being newly constructed, and continued to grow until 1970. The population peaked in 1970 at over 36,000 residents and then dropped by 50% by 1990. Today, 17,164 people live in Denver Harbor.

The current population density of the area is approximately 2,700 people per square mile, which is less than the average density of Houston at 3,800 people per square mile. However, the population density is greatly impacted by the amount of land occupied for industrial uses and rail lines.

Very little has changed in Denver Harbor over the last fifty years, and as a result there is very little vacant land in the area. The density of development and lack of vacant land point to the need for innovative strategies that address the public realm to ensure the continued health and stability of the neighborhood, including safe places to walk, bike, play, and exercise.

ABOVE: Map of Vacant Land and Tax Delinquent Property  
BELOW: Denver Harbor Population, 1940-2010  
by J. Fuentes, A. Hollon, N. Martinez







**58% of Denver Harbor residents own their own home, compared to 45% in the City of Houston.**

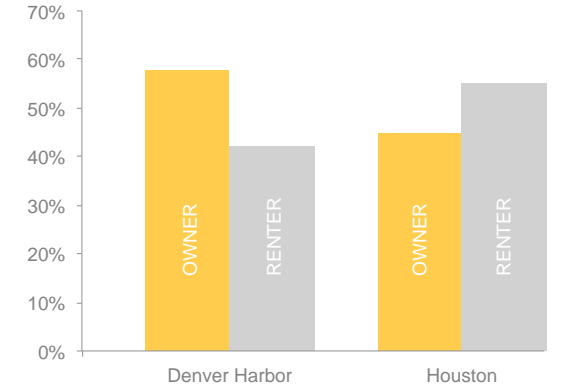
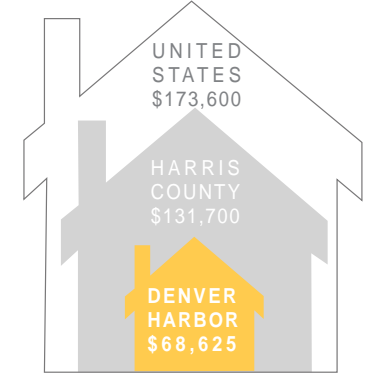
ABOVE, Left: Residential Land Use  
 Single Family  
 Multi-Family  
 BELOW: Denver Harbor Photo



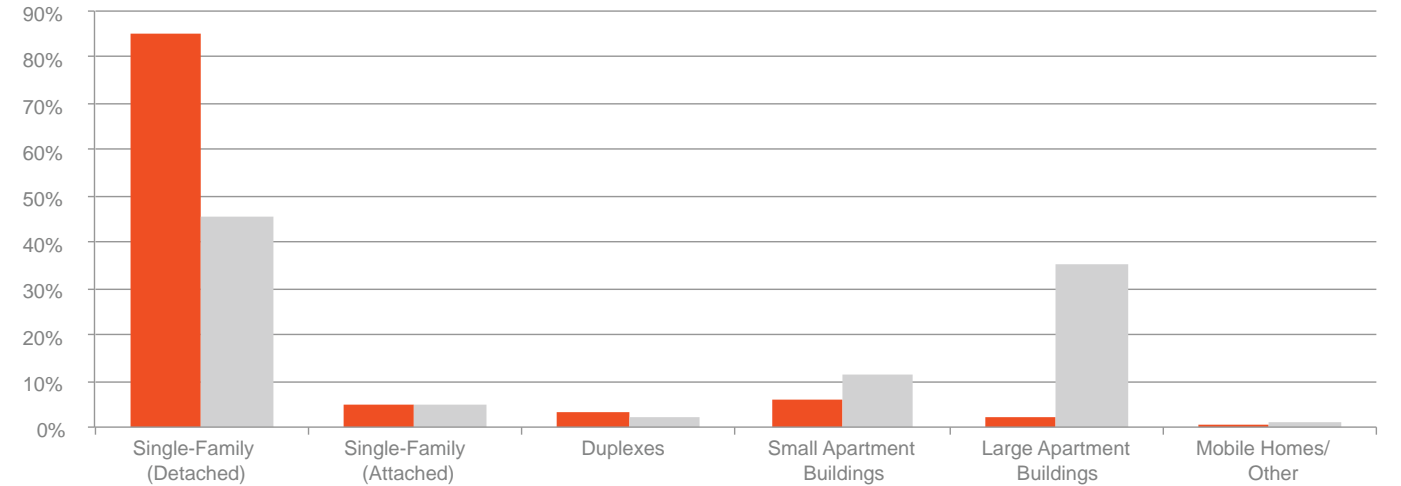
The Denver Harbor | Port Houston Super Neighborhood has two distinct residential areas (see map opposite page). In both communities single-family housing is the primary form of residence. Specifically, 85% of all housing is single-family detached, the remaining 15% are scattered site duplexes and apartment units in small complexes.

The majority of the housing in the neighborhood was built during the 1940s and 1950s and most Denver Harbor residents own their own homes, 58% (compared to 45% in the City of Houston). The median home value in the neighborhood is \$68,625, significantly lower than Harris County's median home value of \$131,700.

The core neighborhoods of Denver Harbor and Port Houston are surrounded by industrial land uses and transportation infrastructure, particularly railroad yards and lines. The neighborhood is stable, but new investment in the public realm and infrastructure will assure that the community will continue to thrive.

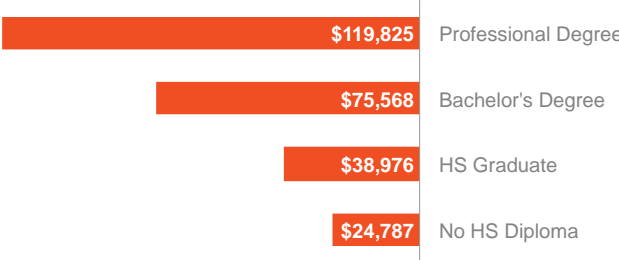


ABOVE, Right: Home Values, Graphic by J. Fuentes, A. Hollon, and N. Martinez  
 RIGHT: Housing Tenure, 2010  
 BELOW: Housing by Type  
 Denver Harbor  
 Houston



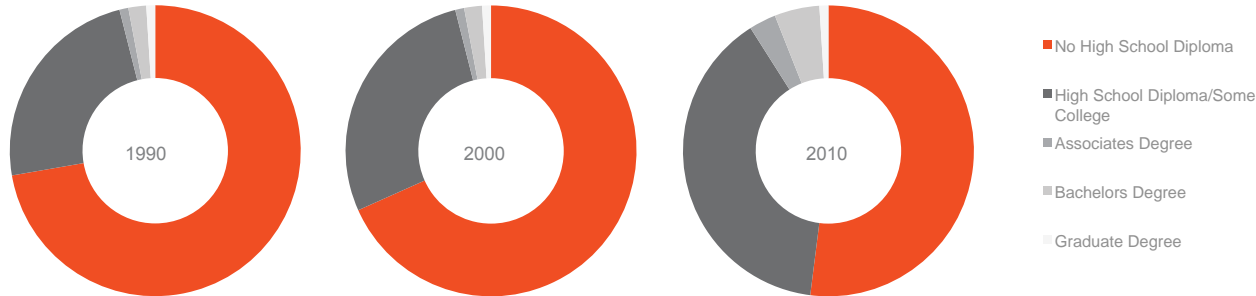


Education is a strong predictor of income; high school graduates make nearly 60% more than those without a diploma.



Denver Harbor has five elementary schools—Eliot, Scroggins, Port Houston, Martinez, and Pugh—and one middle school, McReynolds. Wheatley High School serves the neighborhood, but the school is located in the Fifth Ward.

Over the last 20 years the educational success of Denver Harbor residents has increased substantially, yet remains low in comparison to Houston. For example, in 1990 73% of the population had not received a high school diploma, in 2010 the number had dropped to 52%. Even with the gains in education Denver Harbor today has twice as many high school dropouts as the City of Houston as a percent of the population. Education



level directly impacts income, and income is one key factor in determining the health of a neighborhood.

The 2010 median household income in Denver Harbor was \$31,879. Comparatively, the median household income in Houston was \$44,124. Median household income is steady across Denver Harbor census tracts, ranging from \$33,864 to \$30,396. Poverty rates slightly vary, ranging from 13% of the population living below the federal poverty level to 31% of the population. Overall, 25% of Denver Harbor residents live on income levels below the poverty line, versus 22% of the Houston population.



ABOVE, Left: Map of Denver Harbor Public Schools  
ABOVE, Right: U.S. Income by Educational Attainment, 2010  
OPPOSITE PAGE, Middle: Educational Attainment, 1990-2010  
BOTTOM, Left to Right: Martinez Elementary School and McReynolds Middle School Photos



Parks and open spaces that are easily accessible to residents, safe, and well-maintained have a substantial impact on the health of a community and have also been found to increase property values. Studies have found that children who live within two-thirds of a mile from a park with a playground are five times more likely to have a healthy weight. Today, nearly one out of three children in the U.S. are overweight or obese.

Denver Harbor is well served with parks. There are five parks in the neighborhood—Gutierrez Park, Selena Quintanilla Perez-Denver Harbor Park, Nieto Park, Tuttle Park (formerly Kress Lyons Avenue Park), and McReynolds Middle School SPARK Park. The City of Houston has plans for a future park on Dorsett Street in the northeast section of the community.

Selena Quintanilla Perez-Denver Harbor Park, located on Market Street, is the largest park in the area and is also the site of the Denver Harbor Multi-Service Center. The park, centrally located in the community, is a major attraction in the neighborhood and is well used by residents of all ages. The park has an .87 mile walking trail. Tuttle Park features a skate park and Nieto Park has a splash pad, which was recently renovated.

The Denver Harbor neighborhood is free from flood hazards even though the area is bounded on the south by Buffalo Bayou.

BELOW, Denver Harbor Park Photos  
 ABOVE, Right: Flood Zone Map  
 100 Year  
 500 Year  
 OPPOSITE PAGE, Left: Park Map  
 (2/3-mile radius)



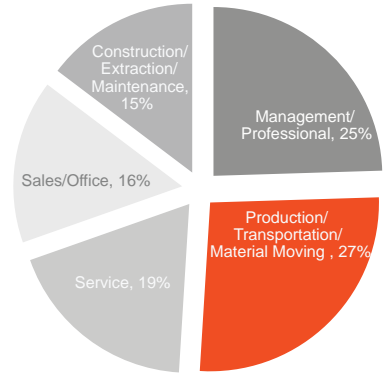
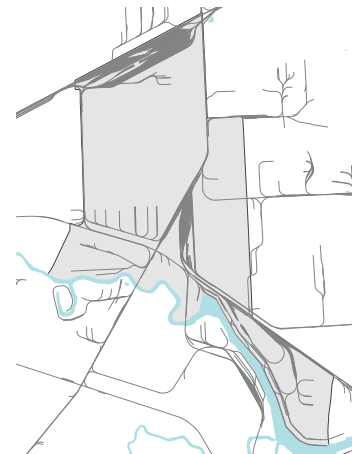
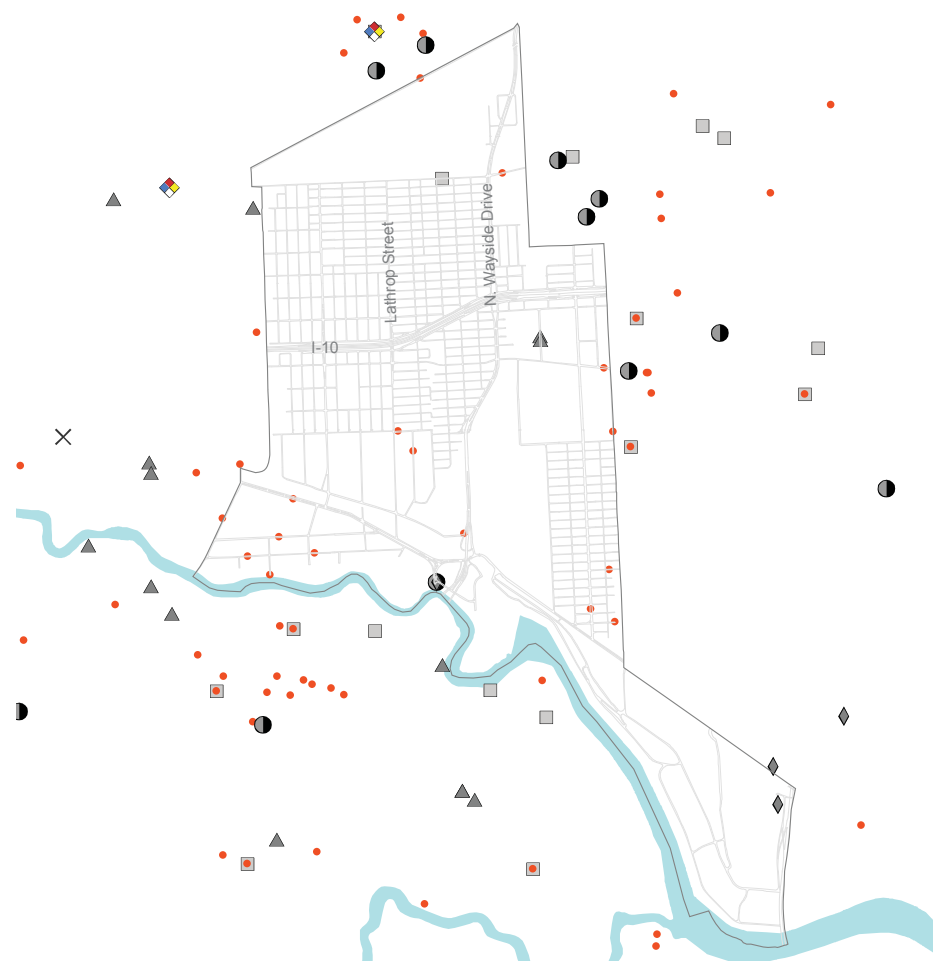


The east side of Houston is home to half of all emission point sources in the city.

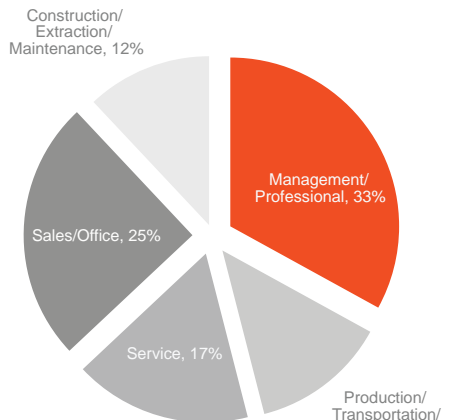
LEFT: Denver Harbor Environmental Reporting Facilities  
Legend:

- Large Quantity Generator (LQG) of Hazardous Waste
- Toxic Release Inventory (TRI) Facility
- Major Discharger of Air Pollutants
- Brownfield Site
- Hazardous Waste Treatment, Storage, or Disposal (TSD) Facility
- Major Water Pollution Point Source
- Superfund Site

BELOW, Left: Railroad Lines  
BELOW: Employment by Sector, Denver Harbor and Houston



Denver Harbor Employment by Sector

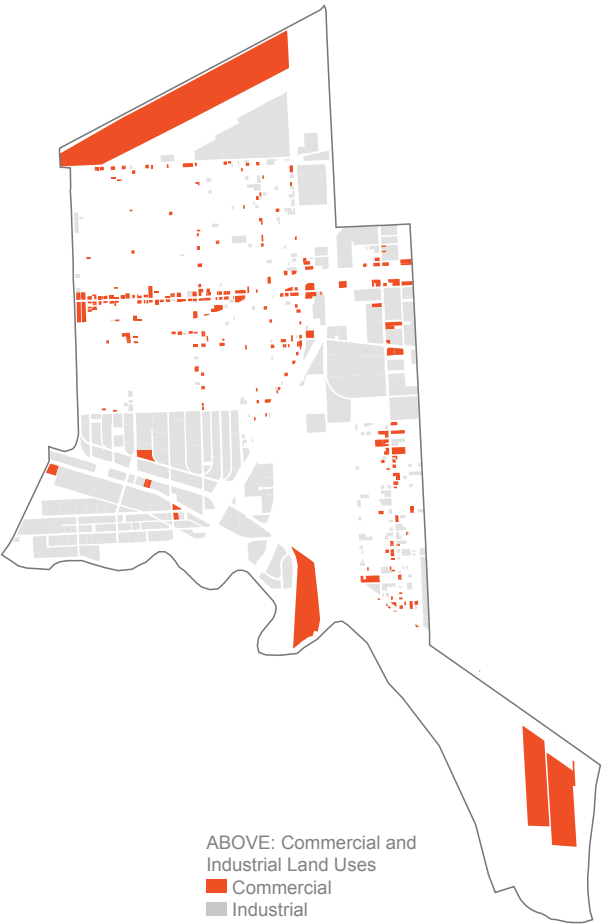


Houston Employment by Sector

The Denver Harbor neighborhood is surrounded on the north, east, and south by industrial land uses. The southern industrial area serves the Ship Channel and is predominantly shipping, crating, and warehousing. The north and east industrial areas serve the adjacent rail lines.

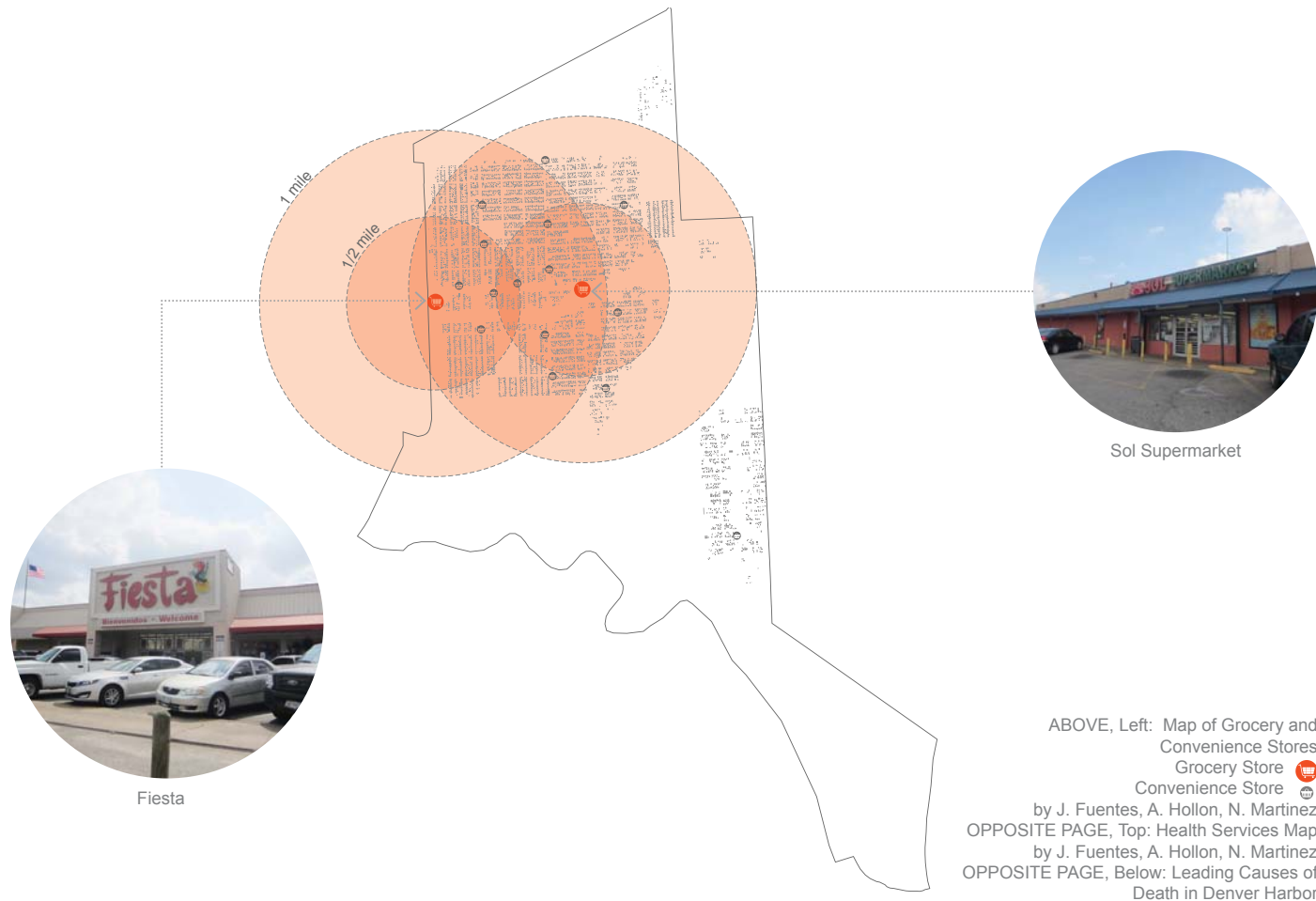
The east side of Houston is home to the majority of the City's industrial development. Because of this the area is also characterized by an abundance of potentially toxic and hazardous sites. In fact, the east side of Houston has been identified as being home to half of all emissions point sources in the greater Houston area. According to the City of Houston Department of Health and Human Service within one mile of Denver Harbor there are 66 Toxic Release Inventory reporting facilities, 22 Large Quantity Generators of hazardous waste, 5 facilities that treat, store, or dispose of hazardous waste, 13 major dischargers of air pollutants, 8 major storm water discharging facilities, and 1 radioactive waste site which is also listed as an active Superfund site. In all, these sites total approximately 22% of all monitored facilities and potential hazardous sites in the Houston area.

Commercial and retail areas are concentrated along Lyons Avenue running east to west, and N. Wayside running north to south in the eastern section of the neighborhood. The two largest employment sectors in Denver Harbor are Production, Transportation, and Material Moving (27%) and Management and Professional (25%). In comparison to Houston, Denver Harbor residents are more likely to work in construction, service, and production, transportation, and material moving.



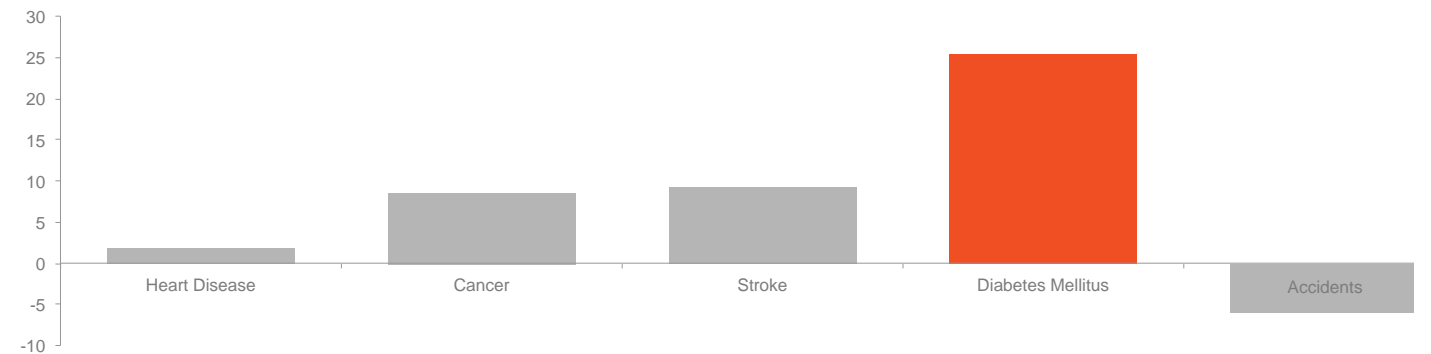
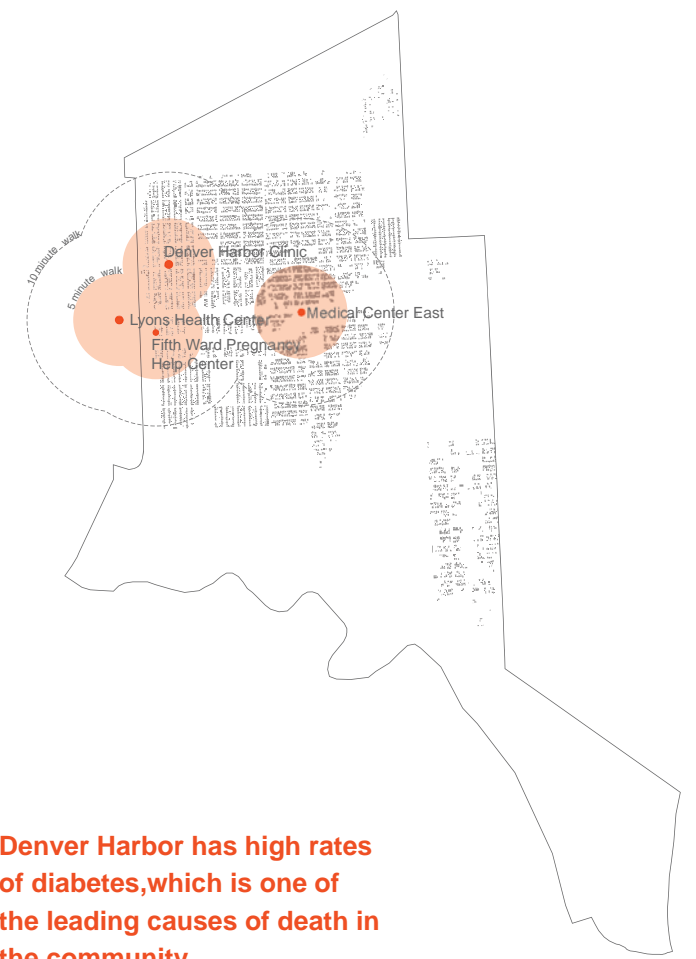
ABOVE: Commercial and Industrial Land Uses  
Commercial  
Industrial  
BELOW: Photos





Denver Harbor has one large grocery store, Fiesta and a smaller local grocer, Sol Supermarket. Fiesta is located at the intersection of Lyons Avenue and Shotwell on the west side of the neighborhood. Sol Supermarket is also located on Lyons Avenue at the intersection with Harris Street, on the east side of the community. There are a number of small grocers and convenience stores throughout the neighborhood. However, easy access to healthy and fresh food is a challenge for some residents. There are not any pharmacies in the neighborhood and there is an abundance of fast food.

Denver Harbor has been designated a medically underserved community. The area has high rates of diabetes, obesity, and cardiovascular disease, which are the leading causes of death in the community. Since this designation, there have been substantial efforts to improve health in the community, including a major effort by Methodist Hospital to provide health testing, screening, and nutrition and weight loss education. In addition, Leadership Houston recently constructed LH Fit at McReynolds Middle School's SPARK Park. The public outdoor fitness zone is a model for the rest of Houston as a place where families and friends can exercise together without the expense of a gym.







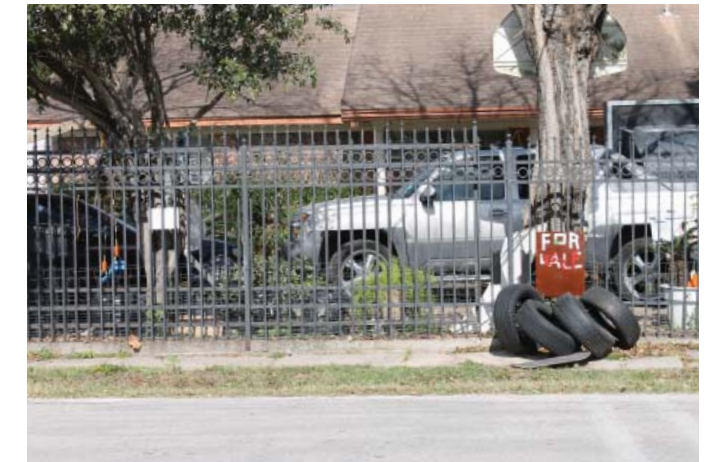
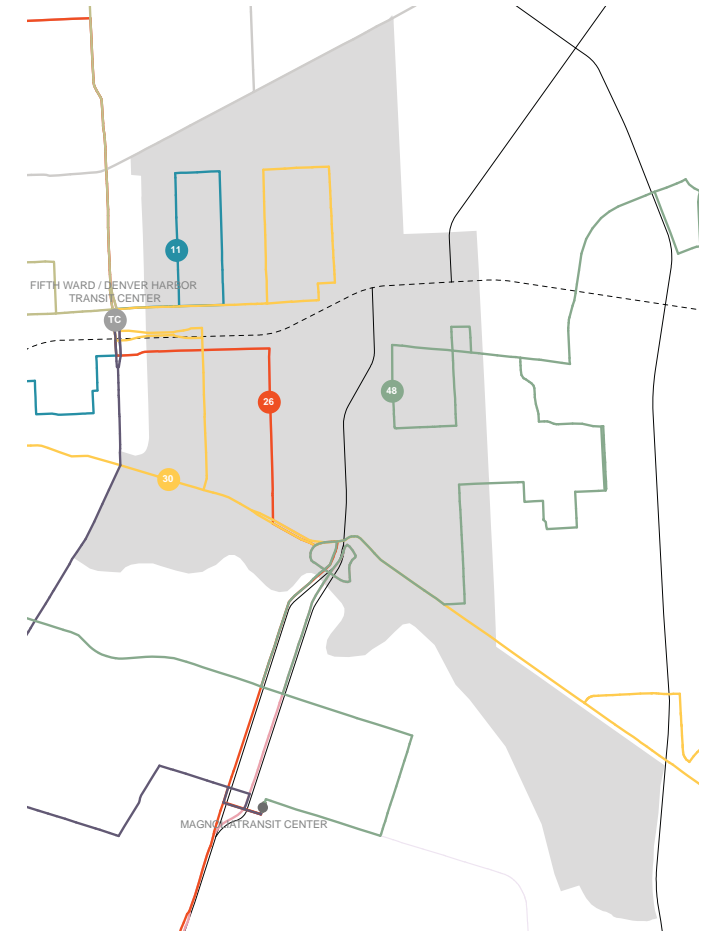
Denver Harbor is well served by the METRO system. Major bus routes connect directly to Downtown, the Texas Medical Center, the University of Houston, and other destinations. METRO recently began bus service to connect residents directly to the Houston Food Bank and Harris County Community College Northeast. Over 2,000 residents in Denver Harbor live in households without access to a vehicle and approximately 1,000 residents depend on public transportation to get to work.

Bikeways are numerous in the neighborhood. East-west routes include Lyons Avenue, Market Street, and Larimer Street. North-south routes include Kress Street, Port Street, and Pearl Street. The bikeways link parks, schools, and shopping in the neighborhood.

The relationship between crime and health in a neighborhood is difficult to correlate, yet it is clear that the fear of crime will impact the likelihood of someone going out for a walk, or to the park. According to the City of Houston reported crime in Denver Harbor (April 2013) is concentrated in the northern portion of the neighborhood.

**The fear of crime will impact the likelihood of someone going out for a walk, or to the park.**

ABOVE, Right: METRO Bus Routes  
 by J. Fuentes, A. Hollon, and N. Martinez  
 BOTTOM: Denver Harbor Street Photos

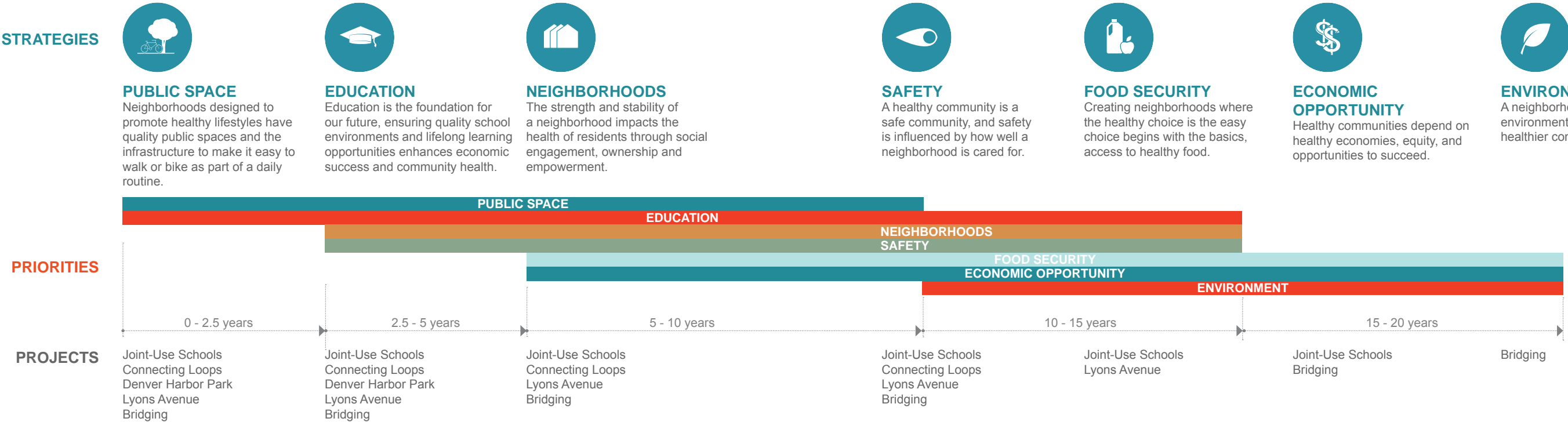


# Healthy Community Design Strategies

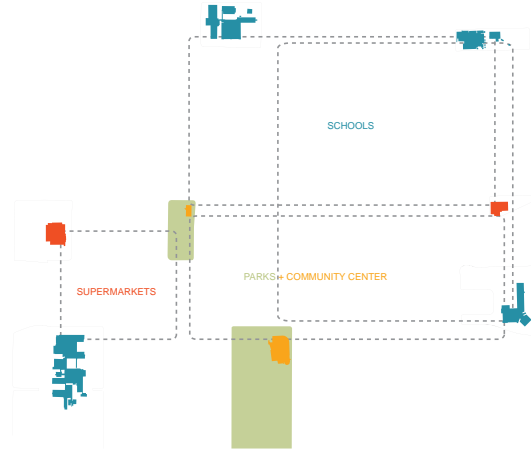
# Healthy Community Design Strategies

Seven strategies, listed below, have been identified to address the challenges of building a healthy neighborhood through community design. The strategies for Denver Harbor focus on transforming neighborhood schools into shared resources and linking destinations throughout the neighborhood with a network of high quality public spaces. The primary emphasis is on the public spaces, streets, and bridges that connect area schools, grocers, shopping, and parks. Many of the specific community design ideas work across several strategies, for example joint-use schools would enhance neighborhood public spaces, improve food security, and provide quality facilities for exercise and play that would improve the health of area residents. Each design idea is covered in detail on the following pages.

The healthy community design strategies for Denver Harbor focus on linking destinations in the neighborhood with a network of public spaces.







# PUBLIC SPACE Connecting Loops

Creating connections, enhancing walkability, and improving transit amenities are primary goals for the project. The Connecting Loop strategy works to bridge the barrier of I-10 while also linking schools, parks and shopping destinations.

North of I-10 there are two parks, a library, two supermarkets, and two elementary schools; south of I-10 there are three parks, including Denver Harbor Park, one community center, an elementary school, a middle school, and a catholic school. Children, families, and residents cross I-10 for school, food, and recreational activities. The current neighborhood grid gives priority



to the vehicle, but a pedestrian network linking across the freeway has the potential to create greater accessibility and walkability.

To this end, a series of connecting loops, as illustrated below, was developed. Each loop is defined by street trees of different species. For example, the Pecan Loop along Lyons Avenue would be planted with Pecan Trees. The different loops would also provide information on different tree species, particularly fruit bearing trees. The five proposed loops (pecan, peach, lime, orange, and fig) would define the street, create shade, improve walkability, while connecting schools, parks, community centers, and shopping.

ABOVE: Diagram of Connecting Loops  
 ABOVE, Top Left: Lyons and Lathrop, Existing Conditions  
 ABOVE, Middle Left: Lyons and Lathrop, Proposed Pecan Loop  
 BELOW: Proposed Fruit Trees  
 OPPOSITE PAGE, Right: Plan of Proposed Connecting Loops  
 Based on concept by J. Fuentes, A. Hollon, and N. Martinez



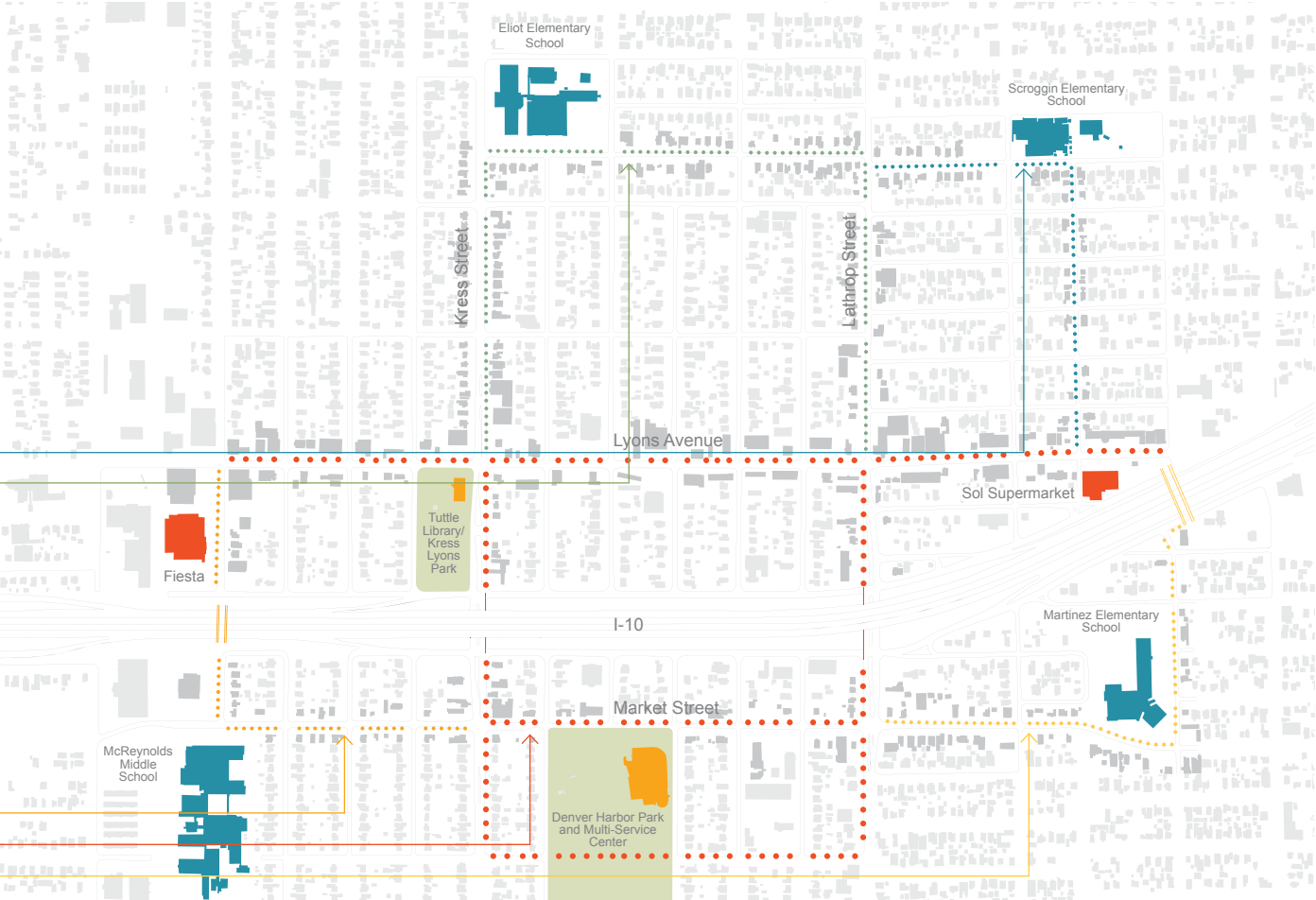
Peach

Pecan

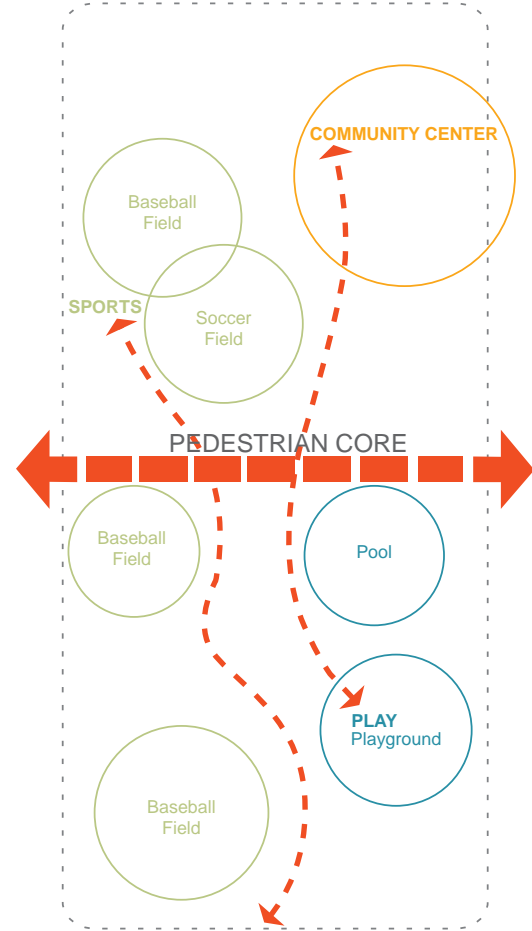
Orange

Fig

Lime







# PUBLIC SPACE

## Denver Harbor Park

Denver Harbor Park, located along Market Street, is the central gathering space in the community. The Denver Harbor Multi-Service Center sits at the northeast corner of the park. The building accommodates a number of different programs including exercising, senior classes, early childhood education, health and wellness, educational programs, and basketball. The park grounds include three baseball fields, a swimming pool, soccer field, playground, walking trail, and a community garden.

Creating better connectivity between the neighborhood and the park is a priority. To this end, the central east-west axis of the park, which aligns with Arapahoe Street, has been re-designed to serve as a pedestrian core and plaza space. The central space could accommodate festivals, events, picnics and other gatherings, and would include a structure that serves as a vendor booth for Little League or market kiosks, children’s play area, seating, game area, and shade. Public art should be an integral part of this proposal celebrating the neighborhood and its culture.

The proposal includes removing the existing parking and providing new head-in parking along the park’s periphery. The proposed parking would create a protective barrier for walkers and park users. The improvements will draw new users to the park, accommodate the existing programs such as Little League, and create a space for gathering in the center of the park.

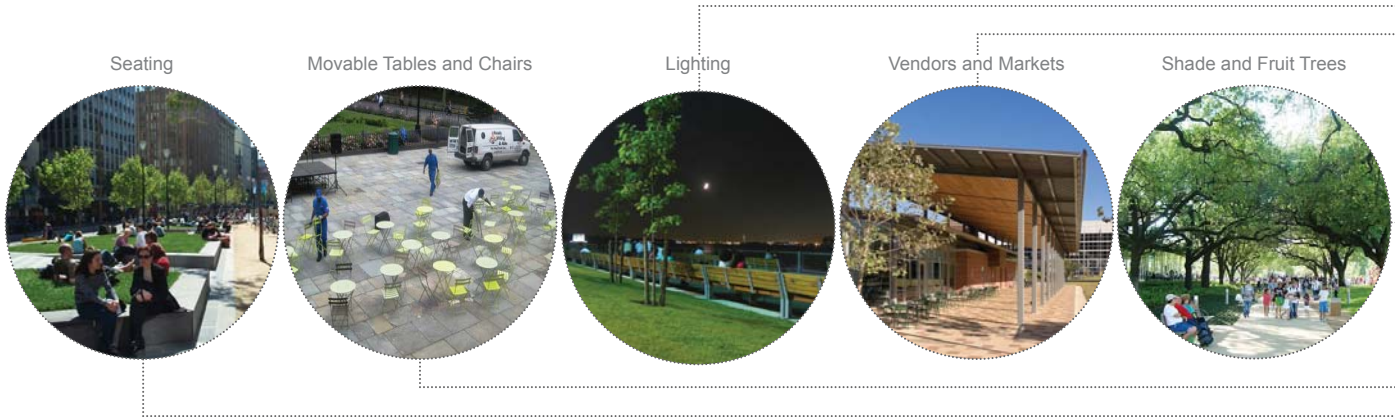


RIGHT: Diagram of Denver Harbor Park Proposal  
 OPPOSITE PAGE, Far Right From Top to Bottom:  
 Playground, Plaza Lighting, and Shade  
 OPPOSITE PAGE, Right: Denver Harbor Park  
 Diagram, based on concept by J. Fuentes,  
 A. Hollon, N. Martinez

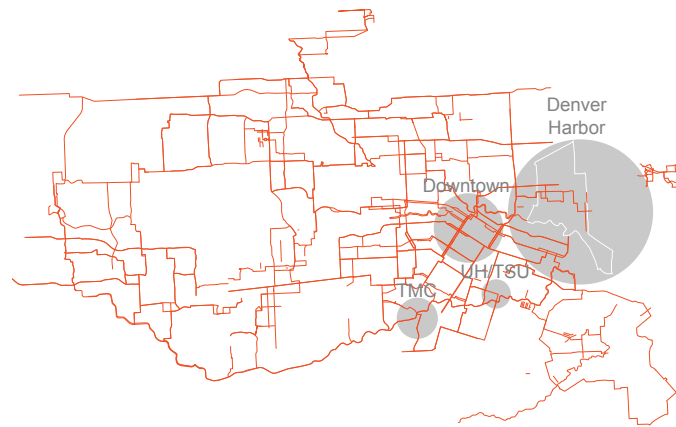




LEFT, Top: Existing Parking Area, Denver Harbor Park  
 BELOW, Middle: From Left to Right: Melbourne City Square, Columbus Park Furniture, Discovery Green, Discovery Green Pavilion, Brooklyn Bridge Park  
 BELOW, Bottom: Proposed Denver Harbor Park Civic Core  
 OPPOSITE PAGE, Right: Plan of Proposed Civic Core







## PUBLIC SPACE Lyons Avenue

Lyons Avenue is the primary commercial corridor in Denver Harbor and continues west through the Fifth Ward. Large retail establishments, such as Fiesta, Fallas Paredes, Melrose and Radio Shack, are located on the west side of the corridor near the intersection of Shotwell. The eastern section of the street is dominated by small locally owned small businesses. Historic buildings along the corridor include the former Globe Theater, which is now a tire shop, and the old Denver Harbor Fire Station.

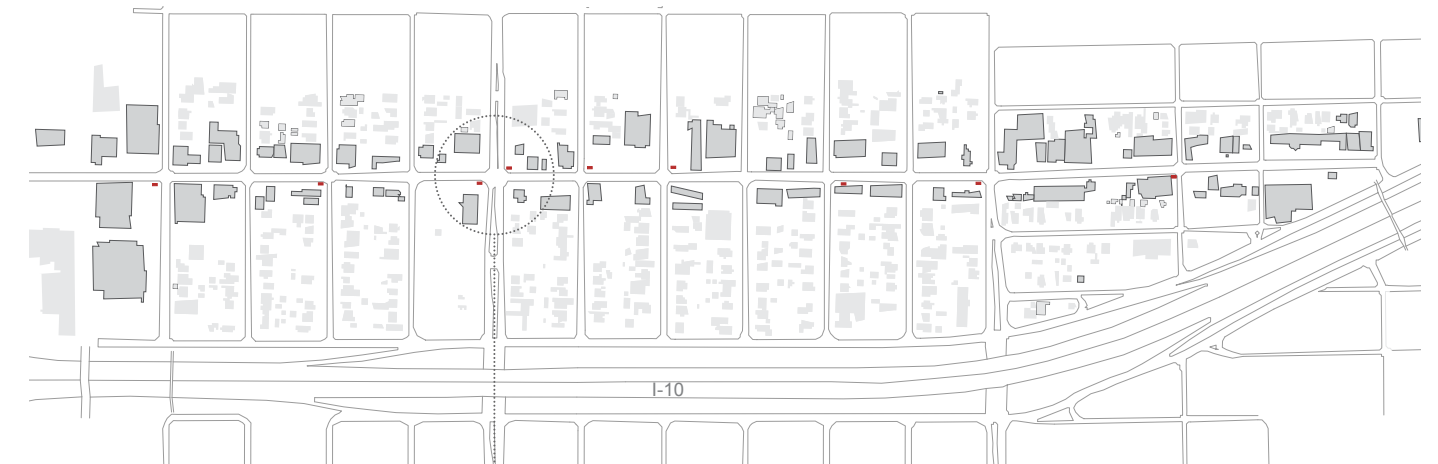
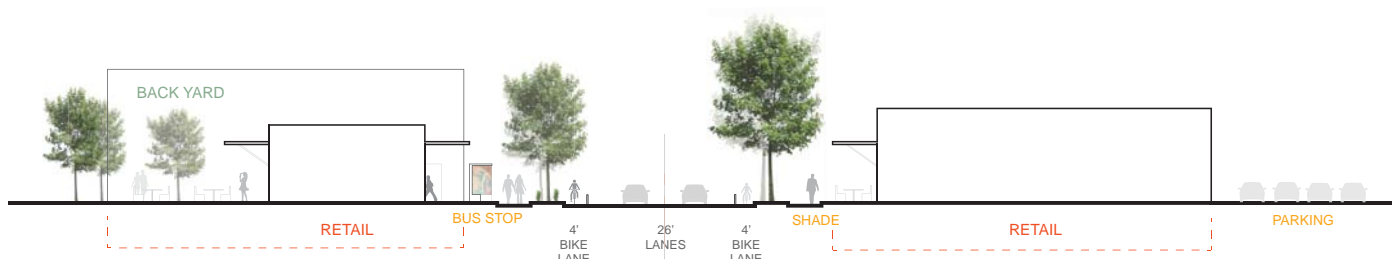
Creating conditions that encourage people to exercise as part of their daily routine is one of the keys to a healthy community, this



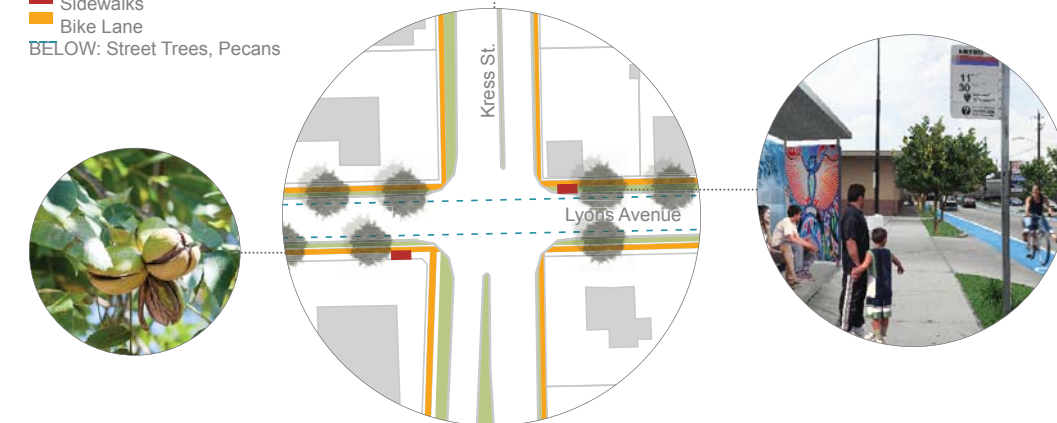
includes the provision of safe and comfortable places to walk, cycle, or utilize public transit. To this end pedestrian and bicycle improvements are proposed for Lyons Avenue as a means to encourage alternative modes of transportation. The proposals include well-marked bicycle lanes on Lyons Avenue, street trees to provide shade, and bus shelters that celebrate the identity of the neighborhood with public art.



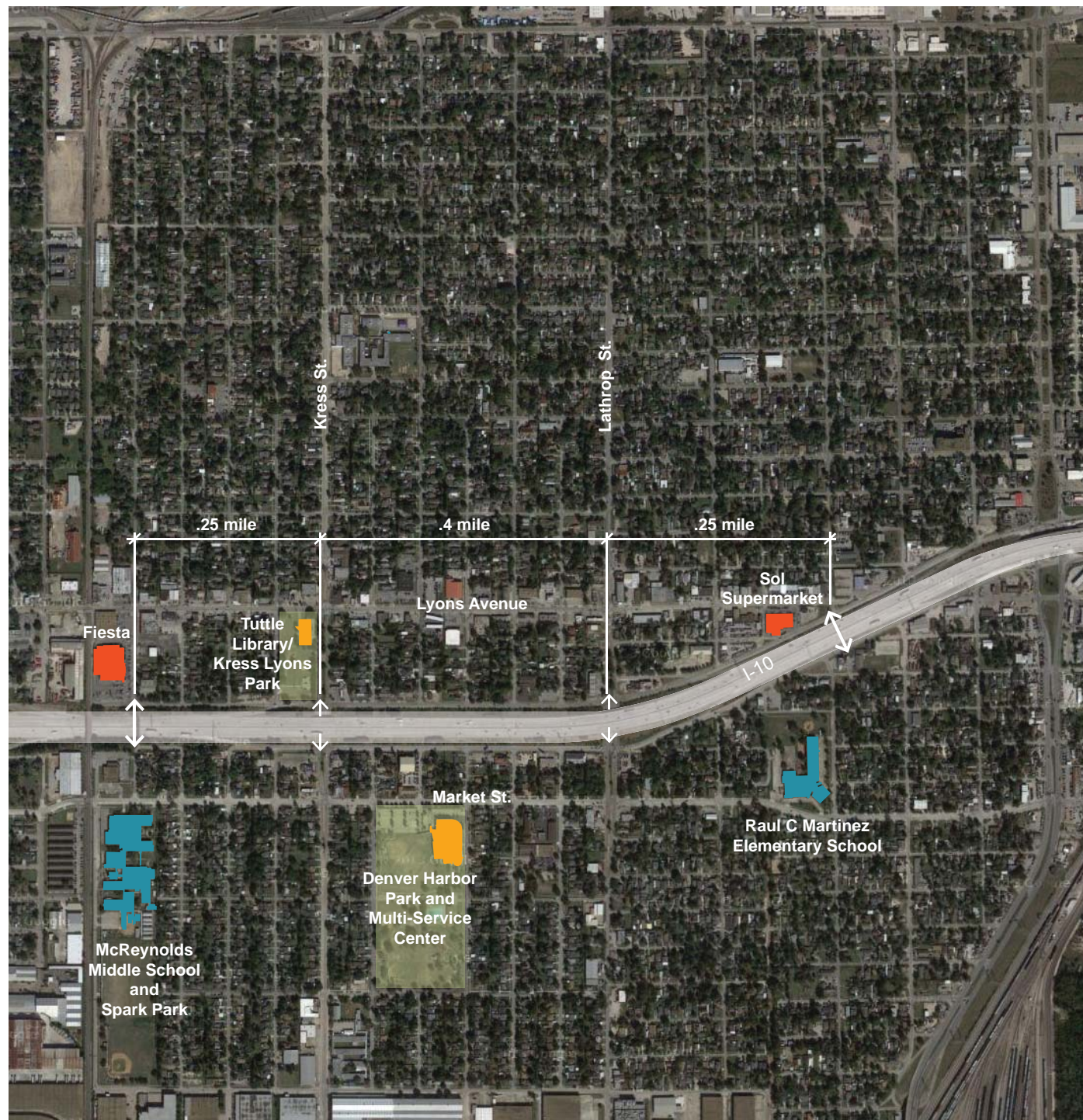
ABOVE, Top: Houston Bikeways Map  
ABOVE, Middle Left: Existing Conditions on Lyons Avenue Photograph  
ABOVE, Middle Right: Proposed Conditions on Lyons Avenue by J. Fuentes, A. Hollon, N. Martinez  
BELOW: Proposed Lyons Avenue Section



ABOVE: Lyons Avenue Plan  
■ Bus Stop  
■ Sidewalks  
■ Bike Lane  
BELOW: Street Trees, Pecans



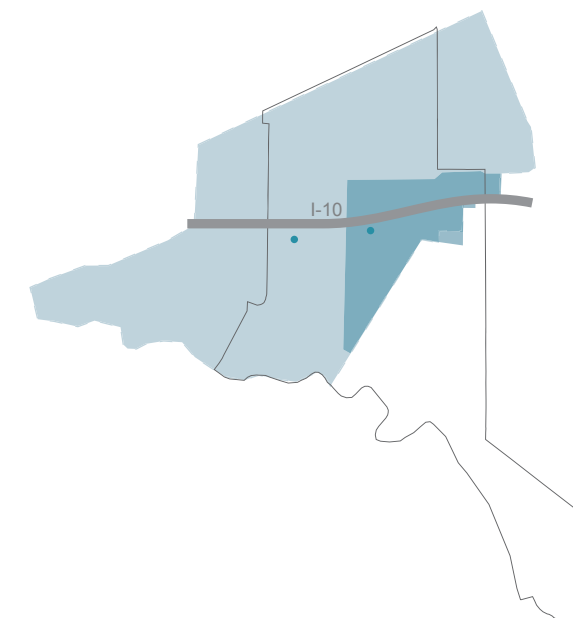




## PUBLIC SPACE Bridging

In the 1960s Interstate 10 was constructed through the heart of the Denver Harbor community. The impact of the freeway was more minimal than in other places primarily because I-10 was constructed without feeder roads in this area and as a result did not create substantial decay, nor drain the economic importance of Lyon's Avenue. However, the freeway did limit north-south connectivity in the neighborhood. At the time of construction fourteen neighborhood streets were terminated with dead ends adjacent to the north and south sides of the freeway. Only four streets in the neighborhood remained continuous, with underpasses crossing I-10—Kress, Lathrop, N. Wayside, and McCarty. Because of the disruption to the existing neighborhood grid two pedestrian bridges were constructed to connect students and residents across the barrier of the highway to schools, parks, and shopping. The eastern pedestrian bridge is located near the intersection of the freeway and Port Street, and the western bridge near the intersection of I-10 and Shotwell. The two central underpasses for vehicular and pedestrian connection occur at Kress and Lathrop Streets. On average residents travel one-half mile to cross the freeway in a vehicle, and approximately one-third of a mile to cross the freeway on foot.

One of the primary characteristics of a healthy community is walkability, and a key component of walkability is connectivity. As a result short-term and long-term design strategies were identified for the two pedestrian bridges and the underpasses to create greater pedestrian and bicycle safety and enhance walkability. The details of the proposals are on the following pages.



ABOVE: School Boundary Map  
Martinez E.S. Boundary  
McReynolds M.S. Boundary  
BELOW, Left: Existing West Pedestian Bridge  
BELOW, Right: Existing East Pedestian Bridge  
OPPOSITE PAGE, Left: Map of Existing Conditions





## West Pedestrian Bridge

The western pedestrian bridge is aligned with Shotwell Street, and connects across I-10 at grade level. Major destinations occur on both sides of the bridge. On the south side is Denver Harbor Park and Multi-Service Center and McReynolds Middle School that serves the greater Denver Harbor community. More than 700 students are enrolled at the middle school and a fair number use the pedestrian bridge to cross the freeway on their way to school. On the north side of the freeway are major shopping destinations along Lyons Avenue including Fiesta, Fallas Paredes, Melrose, and Radio Shack, and the neighborhood public library. The closest pedestrian and vehicular access across I-10 is one-quarter of a mile east and west of this pedestrian bridge. The bridge, originally

constructed in the 1960s, is in poor condition, the chain link fencing is in need of replacement and the bridge feels very unsafe.

Two strategies have been developed to improve the pedestrian bridge. The short-term strategy focuses on enhancing safety by improving lighting, neighborhood signage and identity, and making improvements to the public approach to the bridge. The long-term strategy (which applies to both pedestrian bridges) focuses on replacing the existing structures with signature bridges that would enhance the identity of the neighborhood, celebrate its culture and history, and improve safety and connectivity.

Pedestrian Bridge Simone de Beauvoir  
Paris, France



Pedestrian Bridge  
Longview, Florida



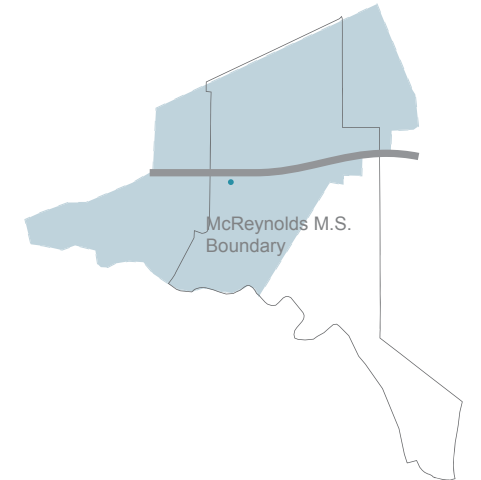
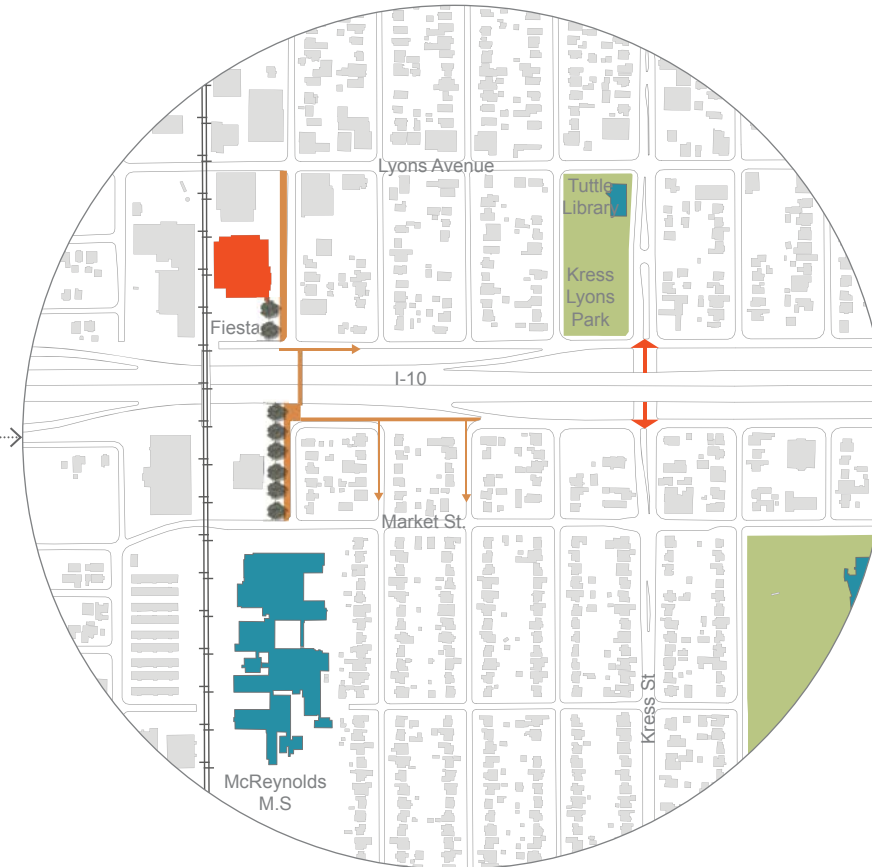
Lightspan Pedestrian Bridge  
Memphis, Tennessee



Town of Kansas Pedestrian Bridge  
Kansas City, Missouri



ABOVE: West Pedestrian Bridge Proposal, based on  
concept by J. Fuentes, A. Hollon, N. Martinez  
ABOVE, Middle: Pedestrian Bridge Precedents  
OPPOSITE PAGE, Right: McReynolds Middle  
School Boundary  
OPPOSITE PAGE, Left: West Pedestrian Bridge Plan





# East Pedestrian Bridge

The eastern pedestrian bridge is located near the intersection of I-10 and Port Street. The pedestrian bridge pre-dates the Americans with Disabilities Act and therefore does not have a handicap ramp, making the bridge inaccessible to those in a wheelchair. The bridge connects students and parents on the north side of the freeway to Martinez Elementary School on the south. Nearly 600 students are enrolled at the elementary school. In addition, Sol Supermarket is located on the north side of the freeway.

Similar to the western pedestrian bridge, a short and long-term strategy were developed for the eastern pedestrian bridge. In the short-term basic improvements such as lighting, neighborhood identity signage, and an accessible ramp are proposed. In the long-term the proposal is to replace the structure with a signature bridge.



Millennium Park Pedestrian Bridge  
Chicago, Illinois



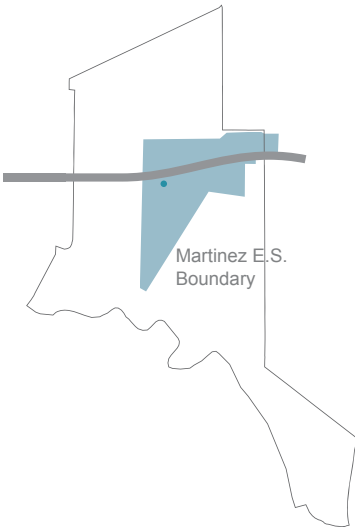
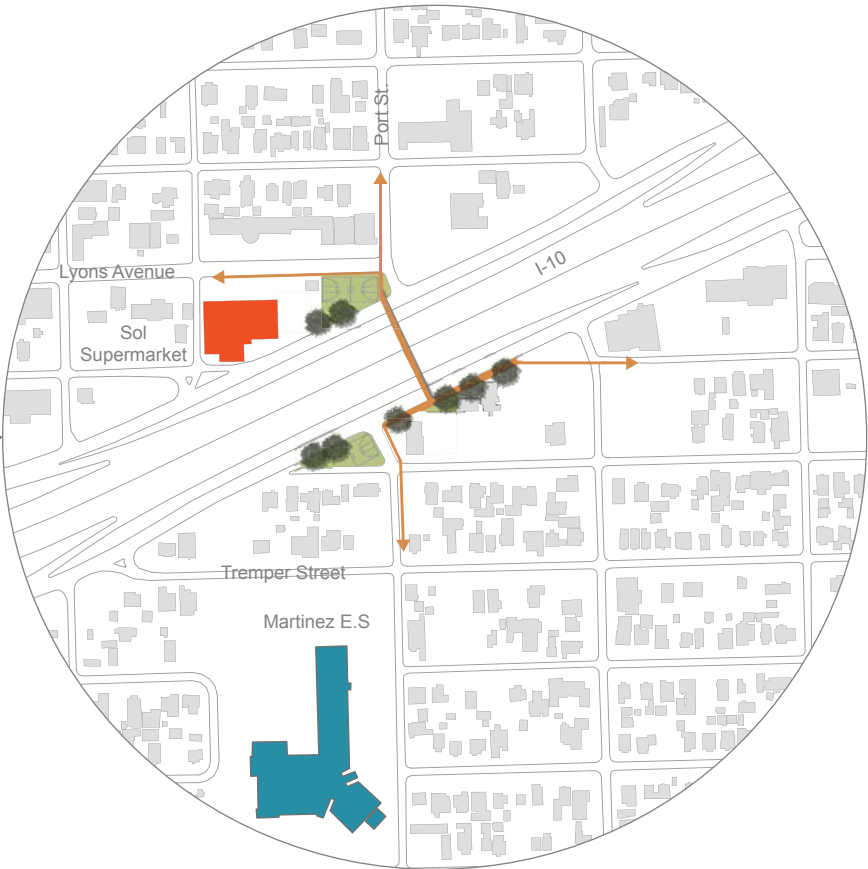
Stadium du Littoral  
Grande Synthe, France



Recoleta Pedestrian Bridge  
Buenos Aires, Argentina



Bragg Street Park  
Raleigh, North Carolina



ABOVE, Top: East Pedestrian Bridge Proposal  
ABOVE, Middle: Pedestrian Bridge Precedents  
OPPOSITE PAGE, Top Right: Existing Pedestrian Bridge, Photo  
OPPOSITE PAGE, Right: Martinez E.S. Boundary  
OPPOSITE PAGE, Left: Plan for East Pedestrian Bridge



## Freeway Underpasses

There are two central freeway underpasses in the Denver Harbor neighborhood, at Kress and Lathrop Street. These two major streets connect important destinations on either side of the freeway, including community services, schools, shopping, and other programs. The underpasses include sidewalks, but they are uncomfortable for pedestrians and lack a sense of safety. To work to address this and create better connectivity in the Denver Harbor neighborhood public art and lighting should be developed for both of the underpasses. Public art could celebrate the identity and culture of the neighborhood, and lighting could both enhance the neighborhood and improve safety.

18th St. Railroad Underpass  
Birmingham, Alabama



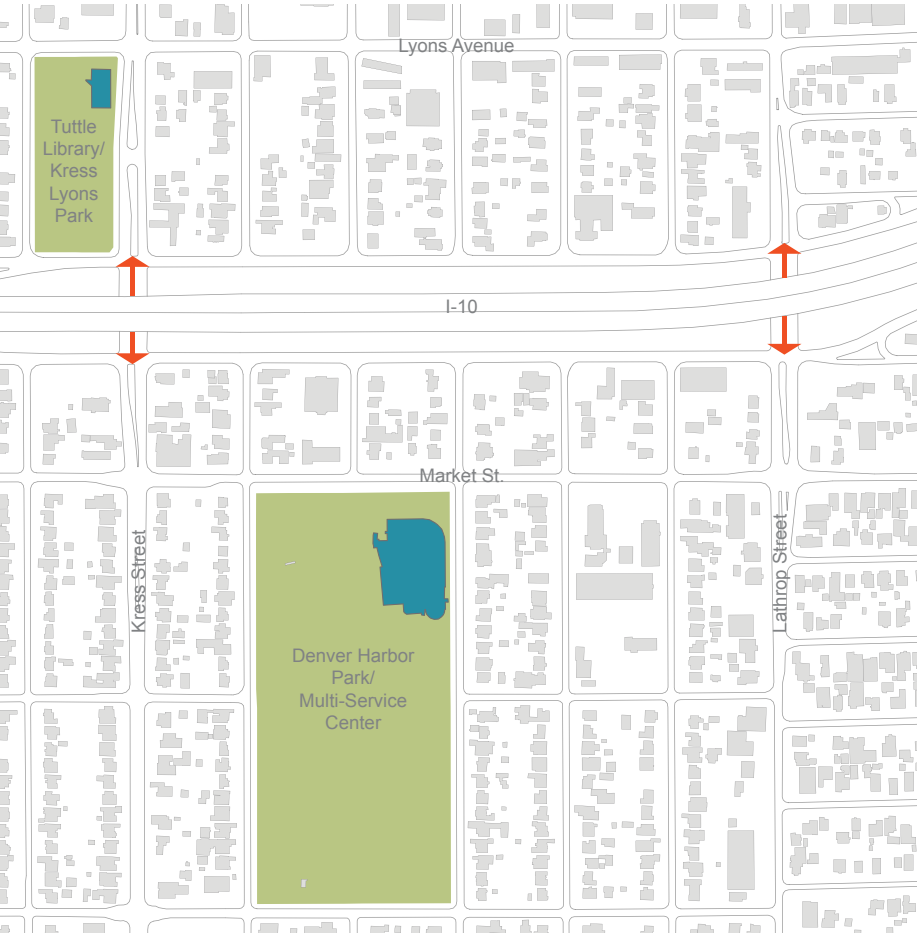
Chicano Park  
San Diego, California

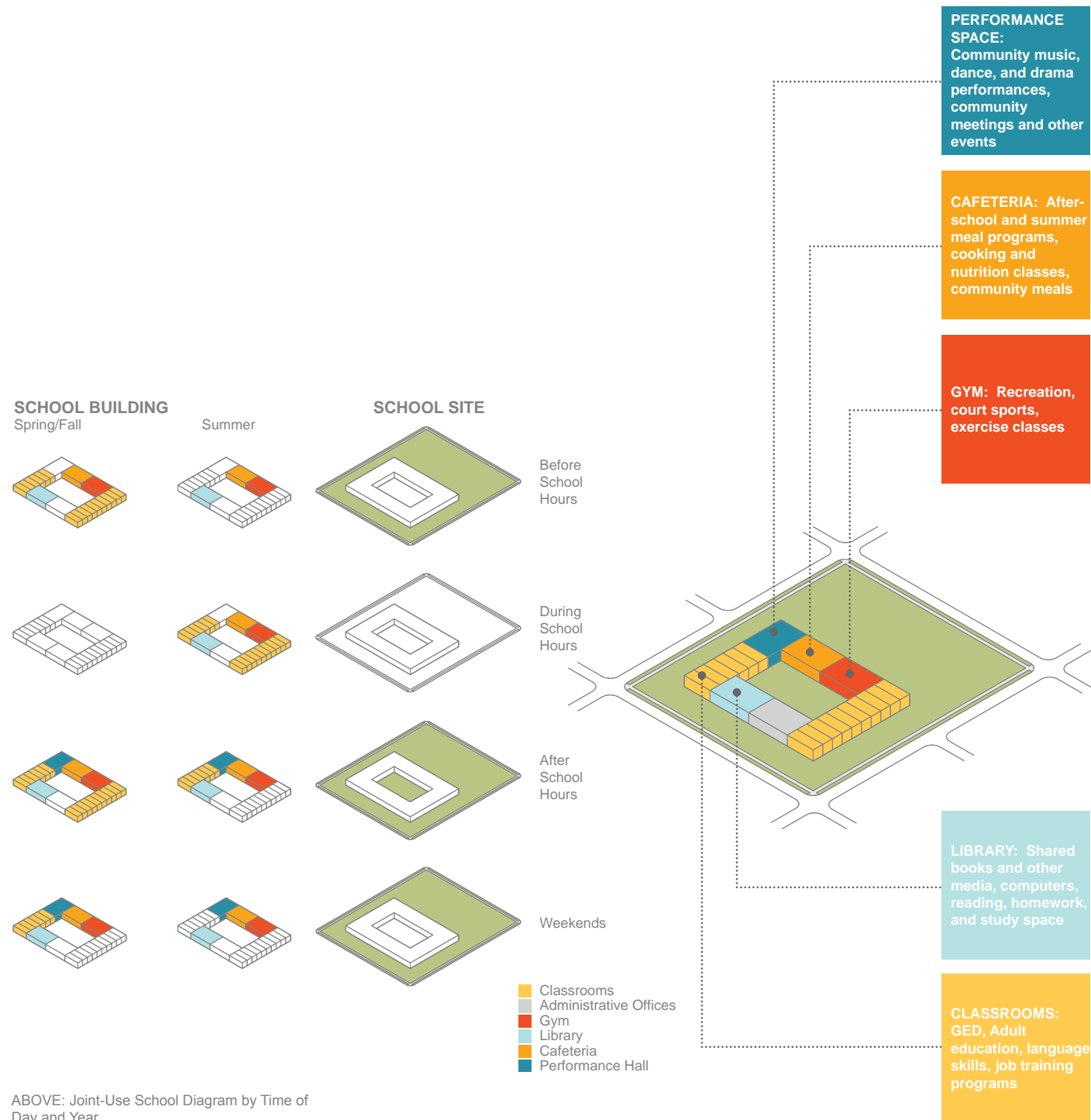


Temescal Underpass  
Oakland, California



ABOVE: Underpass Project Precedents  
BELOW, Left: Kress Underpass, Existing Conditions  
(Google Earth)  
BELOW, Right: Kress Underpass Proposal  
OPPOSITE PAGE, Freeway Underpass Map  
OPPOSITE PAGE, Right: Denver Harbor Public Art





ABOVE: Joint-Use School Diagram by Time of Day and Year

## EDUCATION Joint-Use Schools

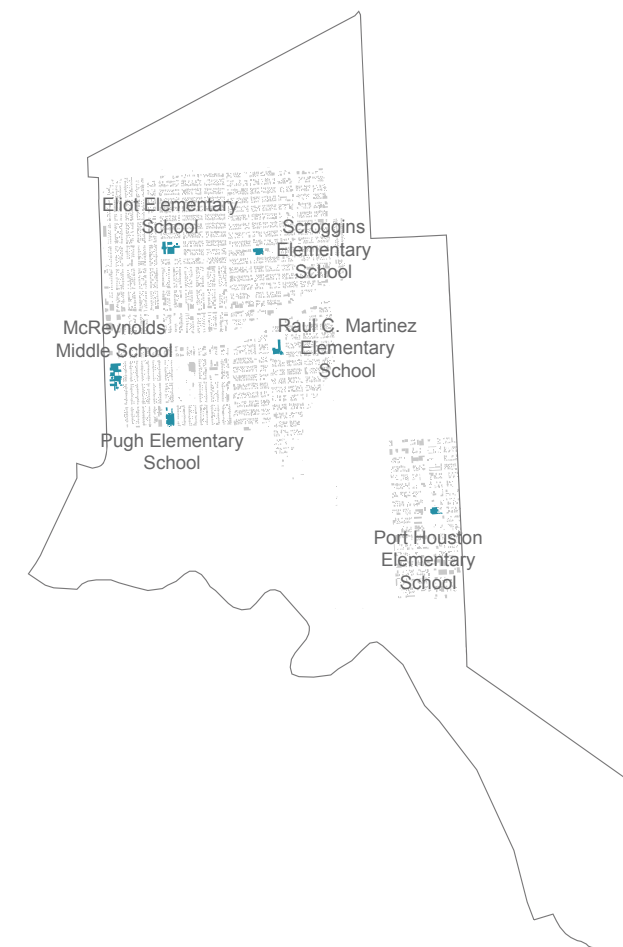
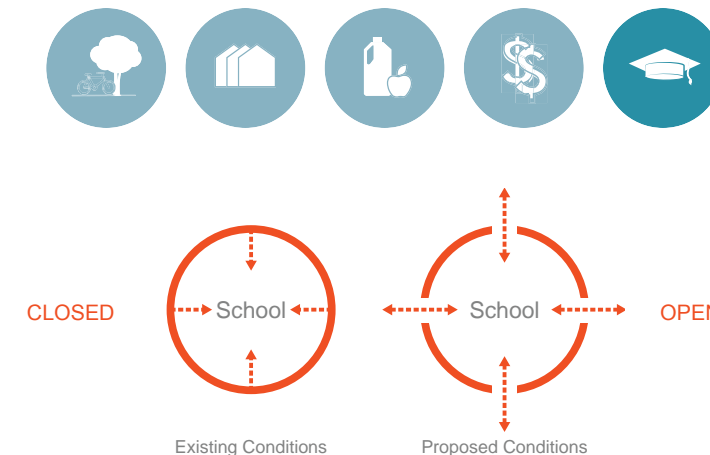
There are more public school buildings than any other public facility in the United States; the buildings contain an estimated 6.6 billion square feet of space on more than one million acres of land.

Demographic shifts, changing housing patterns, and new school capital investments present an unprecedented opportunity to reshape the ways local government and schools work together to provide for the people who depend on them and the resources they manage. This is especially important for low-income, low-resource urban communities who disproportionately struggle to meet community needs.

The Center for Cities and Schools at the University of California at Berkeley reports that there is a growing interest in creating innovative joint use programs for neighborhood schools. It is one way to expand services for children and families, increase opportunities for physical activity and healthy living, and provide additional educational, cultural, and civic uses. The Center's list of potential joint uses include gyms, outdoor recreational spaces, libraries, performance venues, cafeterias and kitchens, and meeting spaces.

Denver Harbor's schools have the potential to become community centers and civic hubs with continuous activity. The Spark Park program is a model for how joint uses might be achieved. Sharing civic facilities could greatly enhance the health and livability of the neighborhood, not just in Denver Harbor but throughout Houston.

RIGHT, Top: Conceptual Diagram of Open Schools  
Concept Diagram by N. Hori, T. Lyon, D. Yao  
RIGHT: Map of Schools



# Participants and Sponsors





# Participants and Sponsors

**Community Design Resource Center**  
Susan Rogers, Director  
Ruqiya Imtiaz-uddin, Research Assistant  
Rose Lee, Research Assistant  
Claudia Ponce, Research Assistant  
Mirna Santillan, Research Assistant  
Ricardo Sepulveda, Research Assistant

**Community Transformation Initiative  
Department of Health and Human Services**  
Linda Bass  
Dr. Patsy Rubio Cano  
Dr. Faith Foreman  
Melanie Gilmore  
Carra Moroni

**Community Design Workshop Spring 2013**  
University of Houston College of Architecture  
Denver Harbor Student Team  
Juan Pablo Fuentes  
Ashley Hollon  
Noe Martinez

Participants				
Reginald Adams	Rayanne Dourensbourg	Sarah Killingsworth	Bakeyah Nelson	Rocaille Roberts
Husna Ahmed	Felix Fraga	Alex Lara	Vishnu Nepal	AJ Rosario
Kareeshma Ali	Verda Gaines	Aldo Leyva	Misael Obregon	Camille Scott
Katy Atkiss	Irving Gomez	Rafael Longoria	Nora Olabi	Deborah Scott
Ernesto Alfaro	Andrea Gonzales	Eva Loreda	Maria Oran	Umair Shah
Linda Bass	Estella Gonzales	Jacqueline Lucio	Alejandra Orellana	Brenda Smith
Teclesha Blanchard	Daniel Hinojosa	Ernesto Maldonado	Chrishelle Palay	Robert Thomas
Antoine Bryant	Krystal Hasselmeier	Tara Mather	Camilo Parra	Amanda Timm
Aaron Cano	Larry Hill	Dipti Mathur	Kathy Payton	Sam Turner
Gabriel Catina	Marchelli Hill	Sherea McKenzie	Jose Pedroza	Jean-Benoit Vieyra
Florida Cornelius-Cooper	Craig Johnson	Melvalean McLemore	Rafael Pizarro	Victor Villareal
Pharren Crawford	Issam Kadiwala	Carol Moore	Juan Ponce	Charles X. White
Cedric Douglas				

