GREENPRINT:

A Master Plan to Make the Patterson Park Neighborhood Greener, Cleaner, and More Sustainable

Plan Developed by:

Neighborhood Design Center
With the PPNA Greening Committee

Funding for GREENPRINT provided by the Chesapeake Bay Trust

February 2012

Table of Contents

Acknowledgements

The Patterson Park Neighborhood Association (PPNA) Greening Committee would like to thank the **Chesapeake Bay Trust (CBT**) for their grant to support the creation, printing, and dissemination of this plan. CBT has been a great partner over the years and we thank them for all of their help.

Second, we would like to thank the members of the **PPNA Greening Committee's Master Team** for their tireless work and leadership in realizing this plan: **David Leibensperger, Robbyn Lewis, Carrie Rushing, Kim Shaefer, Gerrit Shuffstall, and Abe Yoffe**.

We would also like to thank the **Neighborhood Design Center** (NDC) - Mark Cameron and Amber Williams - for their assistance in organizing meetings, writing the text, creating and assembling images, and formatting the document. Additionally, we would like to thank the following NDC volunteers who helped in the May 2011 charrette: Stephanie Tuite**,** Josh Skiles, Jennifer Leonard**,** Chantal Ireland**,** Martina Dobrosielski**,** Samantha Saveri**,** Katherine Brower**,** and Lisa Reed**.**

Thank you as well to **TerraLogos** for hosting meetings and always making their office available.

Finally, we would like to thank all of the residents of the Patterson Park neighborhood who participated in the charrette, reviewed drafts of the master plan, and gave their time to help make the community greener, healthier, and more beautiful.

Executive Summary

The mission of the PPNA Greening Committee is to make the Patterson Park neighborhood the greenest in Baltimore. In order to coordinate greening projects, strengthen partnerships, and align with resident aspirations and Baltimore City sustainability targets, the **GREENPRINT** master plan was created.

The master plan covers the area governed by the Patterson Park Neighborhood Association (PPNA). The neighborhood is famous for its brick rowhouses with white marble steps and pattern of large and small streets, resulting in a mix of house sizes – three-story houses facing the park or Linwood Avenue and small, two-story houses on alley streets. It also has a diverse population, with a growing number of young professionals and Latinos.

While the above characteristics are positive aspects of the neighborhood, there are also many challenges – the dense network of streets, alleys, and houses result in a dominance of hard, impervious surfaces ; there are not enough street trees; private planting and garden spaces are lacking; and transit stops are uninviting.

To address these conditions, the PPNA Greening Committee developed eight goals for creating a greener, cleaner, and more sustainable neighborhood:

Goal #1: Develop sustainable leadership

Goal #2: Improve community engagement and education

Goal #3: Expand on existing greening efforts

Goal #4: Make it easier to walk, use transit, and bicycle

Goal #5: Reduce storm water runoff

Goal #6: Improve air quality

Goal #7: Reduce trash and improve cleanliness

Goal #8: Integrate Library Square into greening activities

Introduction

In a 2010 grant application to the Chesapeake Bay Trust, the Patterson Park Neighborhood Association Greening Committee wrote: "To strengthen continuity of our greening initiatives, a well-defined strategic plan is an essential tool that future neighborhood leaders can use to guide activities, and relieve them from the burden of starting from scratch at the beginning of each new board term in office. The importance of a strategic plan for neighborhood greening cannot be overemphasized. Such a plan will help to ensure programmatic coherence of various projects; alignment with resident aspirations; alignment with Baltimore City sustainability targets; (and) strengthen partnerships with key city agencies… that are working on greening and environmental stewardship issues."

This was the catalyst for creating **GREENPRINT**. Like a blueprint used to build a house, the **GREENPRINT** master plan is meant to be a guide for the PPNA Greening Committee to use over the next several years to expand on their current activities and develop new initiatives to continue improving the health, beauty, and livability of the neighborhood.

How to use GREENPRINT

The master plan is divided into eight goals with accompanying strategies. The goals and strategies are meant to be broad so as to be flexible enough to accommodate evolving leadership, opportunities, and changing external factors. The master plan is meant to serve as a base and guide for an "Action Plan" to be developed and updated on a yearly basis by the Greening Committee. The Action Plan will consist of specific tasks linked to the goals and strategies in the master plan that can be tracked and measured. It will also serve as the means for organizing, fund raising, and implementing various activities.

May 2011 Charrette

On Saturday, May 14, seventy-five residents gathered in St. Elizabeth's Church Hall to brainstorm about the types of actions they'd like to see included in the first community green master plan in the city. The workshop began with comments from Councilman James Kraft as well representatives from Baltimore City and the Patterson Park Neighborhood Association. Attendees then rotated among four tables for facilitated discussions led by Neighborhood Design Center volunteers and members of the PPNA Greening Committee.

The four tables were organized by topics derived from Baltimore Sustainability Plan: Greening, Transportation, Pollution Prevention, and Cleanliness.

Resident input and ideas from the charrette served as the starting point for this plan.

Adults and youth came together on a Saturday morning to voice their concerns as well as share their ideas for improving the neighborhood.

Neighborhood Background

The Patterson Park Neighborhood is located in southeast Baltimore City. The neighborhood's geographic boundary encompasses Clinton Street on the east, Orleans Street on the north, and Milton Street on the west – forming the northern and eastern edges of Patterson Park. (see page 7). This area encompasses approximately 60 blocks, or 50 acres.

Neighborhood Population & Demographics

The Patterson Park neighborhood has an economically, racially and culturally diverse population. According to the 2010 Census, approximately 5,800 people reside within its boundaries. While population has remained relatively the same over the past ten years, demographics have shifted with an influx of young professionals and the ongoing immigration of new residents from Latin America. Available demographic data, drawn from the 2010 Census, indicate about 40% white, 23% black, 22% Hispanic, and 15% Other.

Neighborhood Setting & Infrastructure

Deriving its name from the adjacent park, the Patterson Park neighborhood is famous for its brick rowhouses with white marble steps. These houses line city streets that are an alternating pattern of wider primary streets and narrower "alley" streets that are less than 20 feet wide. Its small backyards are most commonly paved with concrete. At the interior of every rowhouse block is a narrow alley that serves as the conduit for city utilities, like trash collection. The combined effect of compact, rectangular rowhouses, grid-like streets, and small backyards emphasize the importance of the shared, public realm of the neighborhood as well as the many challenges for tree planting and other greening activities.

The neighborhood is almost strictly residential, with a few corner stores and restaurants. There are also two schools within the PPNA boundaries, a library, and several churches.

Tree Canopy

In 2009, the PPNA Greening Committee conducted a tree survey, identifying 578 existing street trees within its boundaries. Of these, 498 trees were relatively healthy, with 80 found to be dead or dying. The health of trees in the neighborhood compares favorably to the city-wide tree conditions report by the Baltimore Ecosystem Study, which estimates that of 200,000 street trees in Baltimore city, 50% are in good health, 25% in fair health, and 25% were dead or dying. Regarding species distribution, the majority of street trees in the Patterson Park neighborhood are maples (35%), followed by cherry (25%), little leaf linden (16%), sycamore (13%) and eastern redbud (6%).

In comparison to the City's Urban Tree Canopy (UTC), which is 20%, the most recent measure of PPNA's tree canopy is 3% (data provided by TreeBaltimore). Trees in the neighborhood are almost exclusively street trees planted on wider streets, such as Linwood Avenue. Trees are rarely found on narrow alley streets, like Curley Street. Even rarer is to find trees planted in backyards.

Impervious Surfaces

The Patterson Park neighborhood, like much of Baltimore, is challenged by a significant proportion of impervious surface, which impedes storm water runoff and reduces water quality. According to TreeBaltimore, 40% of the city is impervious, including rooftops and streets. Although we do not have precise data about the neighborhood's proportion of impervious surface, we estimate that it is probably higher than 40%.

Public Transportation

Five bus lines run through the neighborhood; nos. 13, 20, 23, 40, and 5x. The majority of these routes are along Fayette Street with one along Linwood Avenue and Baltimore Street. The Hopkins Shuttle, which provides service to the Johns Hopkins Medical Hospital, has stops in the neighborhood. Finally, the proposed Red Line, which will run east and west from Bayview to Social Security, is planned along Boston Street.

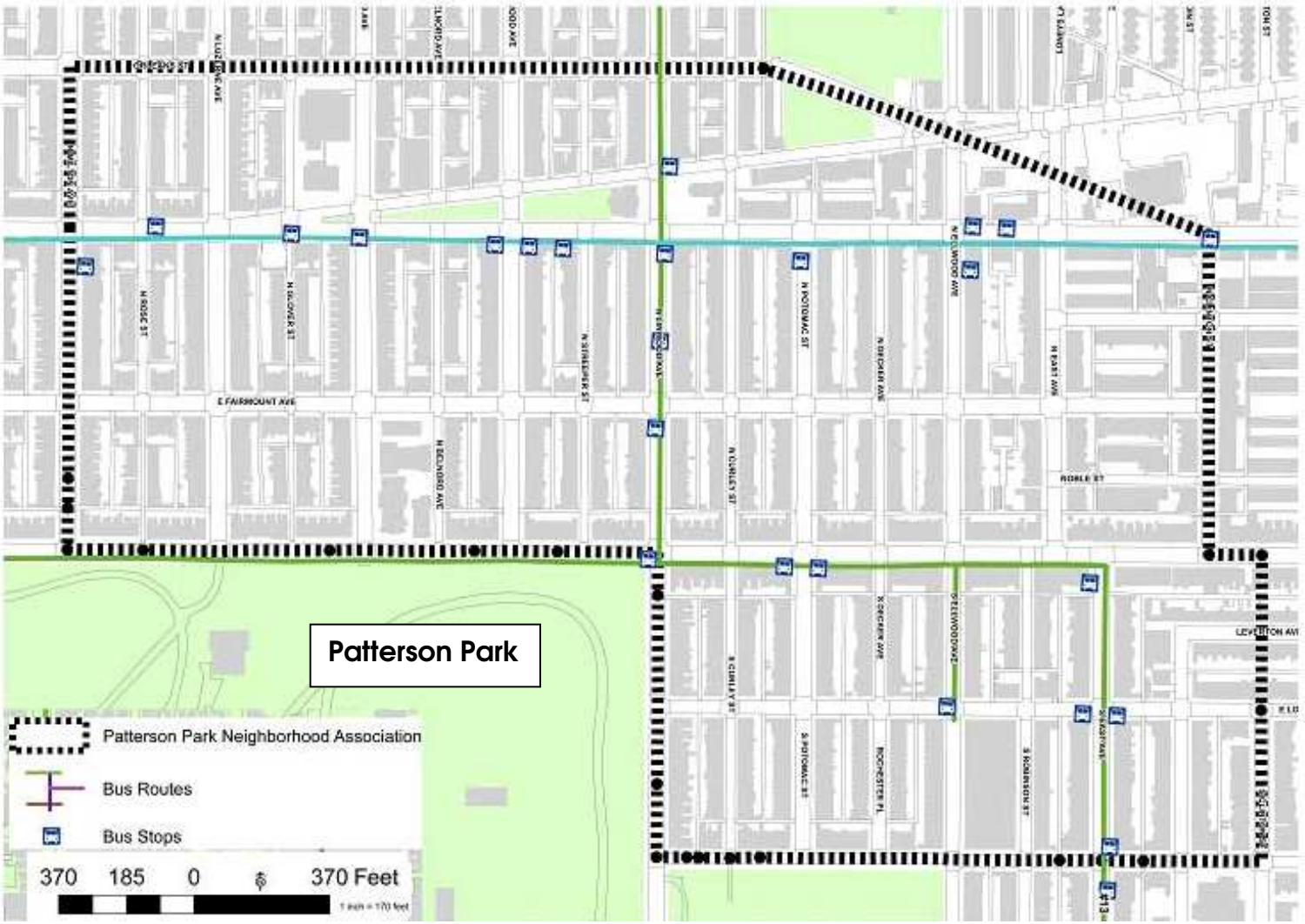
Parks and Open Spaces

Only one park lies within the PPNA boundary – Library Square – in the northern part of the neighborhood. In addition to this open space, playgrounds and playspace are located at each of the two schools. Finally, while not technically a part of PPNA, Patterson Park abuts the neighborhood and provides a tremendous asset for residents.

Recent Greening Activities

In 2003, PPNA launched an initiative called "Project 500" to plant 500 new street trees within five years. Using a community greening approach, the Greening Committee mobilized volunteers and raised funds (from partners like Banner Neighborhoods, the former Patterson Park Community Development Corporation, the Chesapeake Bay Trust, and private donors) to buy trees. Since then, PPNA has worked with residents and the Forestry Division to plant over 250 street trees. Other greening activities include Bloom Your Block, Mums & Pumpkins, and participation in the Baltimore Neighborhood Energy Challenge.

Patterson Park Neighborhood Map



Relationship to Other Plans

We recognize that PPNA's green master plan does not stand alone but needs to be integrated with past and on-going efforts. The following are five recent or current plans that should be considered when implementing the **GREENPRINT**.

Baltimore Sustainability Plan

Adopted in 2009, the City's Sustainability Plan serves as a guide for public agencies, decision-makers, and residents alike to create a healthier, more livable, and more sustainable city. The Plan is divided into seven topic areas. Particular to this green master plan are the following sections:

- Cleanliness
- Pollution Prevention
- Greening
- Transportation

The PPNA Greening recognizes the importance of aligning its green master plan with the City's Sustainability Plan, especially for leveraging public support and funding as well as coordinating with city-wide initiatives.

Harris Creek Small Watershed Action Plan

Created in 2010 by the Center for Watershed Protection, the Harris Creek Watershed includes the western half of the Patterson Park neighborhood. The overlying goal of the Action Plan is to improve storm water quality and reduce the amount of trash in the Harbor by cleaning up city streets and vacant lots. Although encompassing an area greater than PPNA, it does identify Library Square as a project where the Action Plan's proposed green street retrofits could be implemented.

Healthy Harbor Initiative

The Healthy Harbor Initiative, created in 2010, is an effort to clean up the Baltimore Harbor and the streams leading to it. The plan was created by the Waterfront Partnership of Baltimore, which is committed to partnering with government, businesses, nonprofit organizations, and the many neighborhoods along its boundaries to implement the vision. While the Healthy Harbor Initiative focuses on the harbor and adjacent areas, it also recognizes the need to make neighborhoods upstream, like Patterson Park, greener and cleaner.

Patterson Park Streetscape Plan

In 2010 the Neighborhood Design Center was asked by PPNA to create a Streetscape and Greening Study for the neighborhood. The study focused on the unit block of Kenwood, the 100 block of Kenwood, and the unit block of Lakewood. Included were recommendations for creating curb planters, larger tree wells, more street trees, and bump-outs at corners to slow traffic. Additionally, the study recommended methods for creating bio-retention areas to collect storm water on the streets.

Library Square Master Plan

Prepared in 2006 by TND Planning for the now defunct Patterson Park CDC, the master plan looks at the area around Library Square as well as the park space itself. The plan recognizes that in order to revitalize Library Square new commercial and civic uses, as well as a vibrant public space, are needed. Recommendations include enhancements to the park and surrounding streets, new retail and institutions, expansion of the library, and the re-use of the Belnord Theater.

GREENPRINT: Goals / Strategies

Goal #1: Develop a sustainable structure for the PPNA Greening Committee

a. Better integrate the Greening Committee with the PPNA leadership structure
b. Develop a Committee structure and operational standards to best implement the **GREENPRINT**
c. Recruit and develop new Committee leaders and volunteers

Goal #2: Improve community engagement and education around greening and sustainability activities

a. Develop new means of communication to better reach the diversity of people in the neighborhood
b. Expand partnerships with local and city-wide organizations
c. Develop informational material, resource packets, and "how-to" workshops on greening and sustainability activities
d. Develop design guidelines that are easy to understand and implement

Goal #3: Expand on existing efforts to green streets, alleys, and backyards

a. Increase the street tree canopy in the neighborhood
b. Develop different methods for greening narrow blocks
c. Create greener alleys
d. Green front stoops and backyards

Goal #4: Make it easier for people to walk, use transit, and bicycle

a. Improve public transportation infrastructure, visibility, and use
b. Improve bicycle and pedestrian safety
c. Implement traffic calming devices

Goal #5: Reduce storm water runoff in the neighborhood

a. Increase street planting areas that filter storm water runoff
b. Reduce storm water runoff in alleys
c. Reduce storm water runoff on private property

Goal #6: Improve air quality by reducing energy use and promoting renewable energy

a. Reduce home and business energy use
b. Increase street tree planting
c. Install white (cool) roofs and/or green roofs
d. Promote the use of renewable energy

Goal #7: Reduce trash and improve the cleanliness of streets and alleys

a. Improve home waste disposal and recycling
b. Improve the look of the neighborhood

Goal #8: Integrate Library Square into neighborhood greening and sustainability activities

a. Work with residents surrounding Library Square to expand greening activities
b. Increase neighborhood activities in the square
c. Enhance the park and surrounding streets

Goal #1

Develop a sustainable leadership structure for the PPNA Greening Committee

Introduction

The mission of the Greening Committee is to make the Patterson Park neighborhood the greenest in Baltimore. Currently the Greening Committee is made up of around 100 people who participate in varying degrees to organize and implement greening activities. The Committee is led by a Chair who is appointed by the Board of PPNA. Activities of the Greening Committee are coordinated by three sub-committees:

- Sustainability
- Beautification
- Trees

Each sub-committee has either a project leader or co-leaders. The activities of each sub-committee are set by the Greening Committee Chair; it is then the responsibility of each sub-committee to carry-out these activities. In 2012 these include:

Sustainability
- RecycleMore
- Baltimore Neighborhood Energy Challenge

Beautification
- Bloom Your Block (Spring)
- Mums & Pumpkins (Fall)

Trees
- Tree Planting

Quarterly meeting, which are open to the public, are led by the Committee Chair and attended by the sub-committee leaders and any other member of the Greening Committee.

Strategies: Greening Committee

It is the responsibility of the Greening Committee is to ensure that the master plan is implemented. In order to do this, it needs to have support from the PPNA Board, a sustainable structure, and committed volunteers.

a. <u>Better integrate the Greening Committee with the PPNA leadership structure</u>

- **Have the PPNA Board adopt the Greenprint**.
- **Work with the PPNA Board** to develop a process for recruitment and appointment of Committee chairs.
- **Change the Greening Committee from an ad-hoc committee to a standing committee**.
- **Add a Greening Committee member to PPNA's Board**.

Teaching future greening leaders how to plant a tree

b. **Develop a Committee structure and operational standards to best implement the GREENPRINT**

- **Redefine the Greening Committee leadership roles, sub-committees, and members**. The Committee currently is comprised of about 100 people, although only a handful have leadership roles. Instead, the Greening Committee should comprise of only the Chair, sub-committee leaders, and a few at-large individuals. All others would be either sub-committee members or volunteers.
- **Develop a job description for the Committee chair and sub-committee leaders.**
- **Create Committee organizational chart with associated responsibilities.**
- **Align new ad-hoc sub-committees with the master plan.**
- **Develop procedures for maintaining and archiving all notes, reports, contact lists, and other material associated with the Greening Committee**
- **Hold regular meetings of the Greening Committee**. These meetings will be to create the action plan for the year, share information and progress, and coordinate activities. Public meetings, to share information and recruit new volunteers, would still be held on a quarterly basis.

c. **Recruit and develop new Committee leaders and volunteers**

Committees require a combination of on-going leaders and new members. It is important to make sure that Committee members have the support that they need to implement their activities, whether it is new people or development and training.

- **Create a pipeline of new leaders for the Greening Committee**
- **Continue outreach and communication of Greening Committee activities to enlist new volunteers** (Goal 2.a)
- **Committee Chair should identify and nurture new leaders**

Volunteers are the life-blood of any neighborhood organization – whether simply planting a tree or developing projects and managing activities. On the righ,t Green Committee members are hard at work developing the master plan.

Goal #2

Improve community engagement and education around greening and sustainability activities.

Introduction

Informed and engaged residents are critical in any neighborhood association. Over the years the Patterson Park Neighborhood Association has improved its organizational capacity and attracted both new and established residents to its leadership through various committees and sector assignments.

The Greening Committee recognize that, while attendance and participation has increased, more is needed to engage a wider array of people and provide them with knowledge and training so that they are informed participants and decision-makers for undertaking greening and sustainable stewardship.

As highlighted in the Baltimore Sustainability Plan, "Simply put, action and knowledge go hand in hand. In order to facilitate the cultural and behavioral shift that Baltimore residents need to become more sustainable, awareness needs to be incorporated into the daily life of each individual."

Recent activities by the Greening Committee, whether the Bloom Your Block competition or Mums & Pumpkins, recognizes that it is not enough to give people plants and containers; people often need information and help with planting and greening projects.

Luzerne block enhancement project with the Neighborhood Design Center in 2002.

Strategies: Outreach, Education and Training

The effective dissemination of information to residents is important for helping people understand the benefits of greening and getting them to take action. This requires more than merely passing out fliers; it requires thinking creatively about methods of communication and the way that these work with the culture of the neighborhood and its residents.

a. **<u>Develop new means of communication to better reach the diversity of people in the neighborhood</u>**.

- **Create bilingual information.** This would help to engage the growing Latino population in the neighborhood.
- **Better utilize the PPNA web site to promote the Greening Committee**.
- **Utilize social media for recruiting people, sharing information, and coordinating activities**.

b. **<u>Expand partnerships with local and city-wide organizations</u>**.

- **Enhance existing partnerships with established neighborhood groups and schools**. These include Banner Neighborhoods and the Patterson Park Charter School.
- **Identify and develop new partners in the neighborhood**.
- **Identify and develop city-wide partners and funders**.

c. **<u>Develop informational material, resource packets, and "how-to" workshops on greening and sustainability activities</u>**

- **Work with other greening organizations to develop workshops, training, and other means for sharing information with residents.**
- **Develop a variety of workshops on different greening activities.** These might include how to obtain a tree, creating container gardens, and alley gating.

d. **<u>Develop design guidelines that are easy to understand and implement</u>**

- **Create a series of "idea books" for stoop gardens and backyards** (see Goal 3.d.). These booklets would also include lists of recommended plants.
- **Create design guidelines for tree planting** (similar to the NDC Streetscape and Greening Study, 2010).
- **Improve methods for identifying and sharing information about greening grants.**
- **Develop single-page information take-home sheets.**
- **Promote resident greening activities and renovations.** These could be part of neighborhood tours, festivals, and events.
- **Work with the PPNA Sanitation Committee to educate residents on proper methods for recycling and trash.**

The Greening Committee has helped to train residents on the proper methods for planting and maintenance, whether container gardens or trees.

Goal #3

Expand on existing efforts to green streets, alleys, and backyards

Introduction

Studies show that having a "green" neighborhood – with trees, parks, and gardens - not only creates a healthier environment but also healthier residents. Stress levels are reduced, homes are cooler, and streets become safer and more walkable.

PPNA is fortunate to have one of Baltimore's premier parks, Patterson Park, adjacent to its neighborhood. While this area provides a green oasis, its adjoining streets and residential blocks are less hospitable. As stated in the neighborhood overview, tree canopy for the neighborhood is approximately 3%. Additionally, because of the pattern of houses, streets, and alleys, a large amount of the neighborhood is given over to impervious surfaces. Finally, because of the size of the houses the rear yards are small and often used for utilitarian purposes.

While little to no opportunities exist in the neighborhood for new open space, there are many opportunities for creating greener streets, alleys, and private yards. This will take working with the City and public agencies to green the public right of ways as well as working with residents to improve the area in front of their houses and their backyards.

Strategies: Greening

a. <u>Increase the street tree canopy in the neighborhood</u>

Trees provide multiple benefits – not only do they provide shade in the summer and color in the spring and fall but they have also been shown to increase property value. In addition to planting trees, care for trees is critical to ensure their health.

- **Create a tree map to track existing trees (location and health) and identify blocks in need of trees**.
- **Calculate and work toward defining a UTC (Urban Tree Canopy) target in alignment with the City's UTC.**
- **Strengthen the network of "green" captains to spearhead tree planting and greening projects**.
- **Host workshops and develop informational material to help residents care for their trees** (see Goal 2.a).

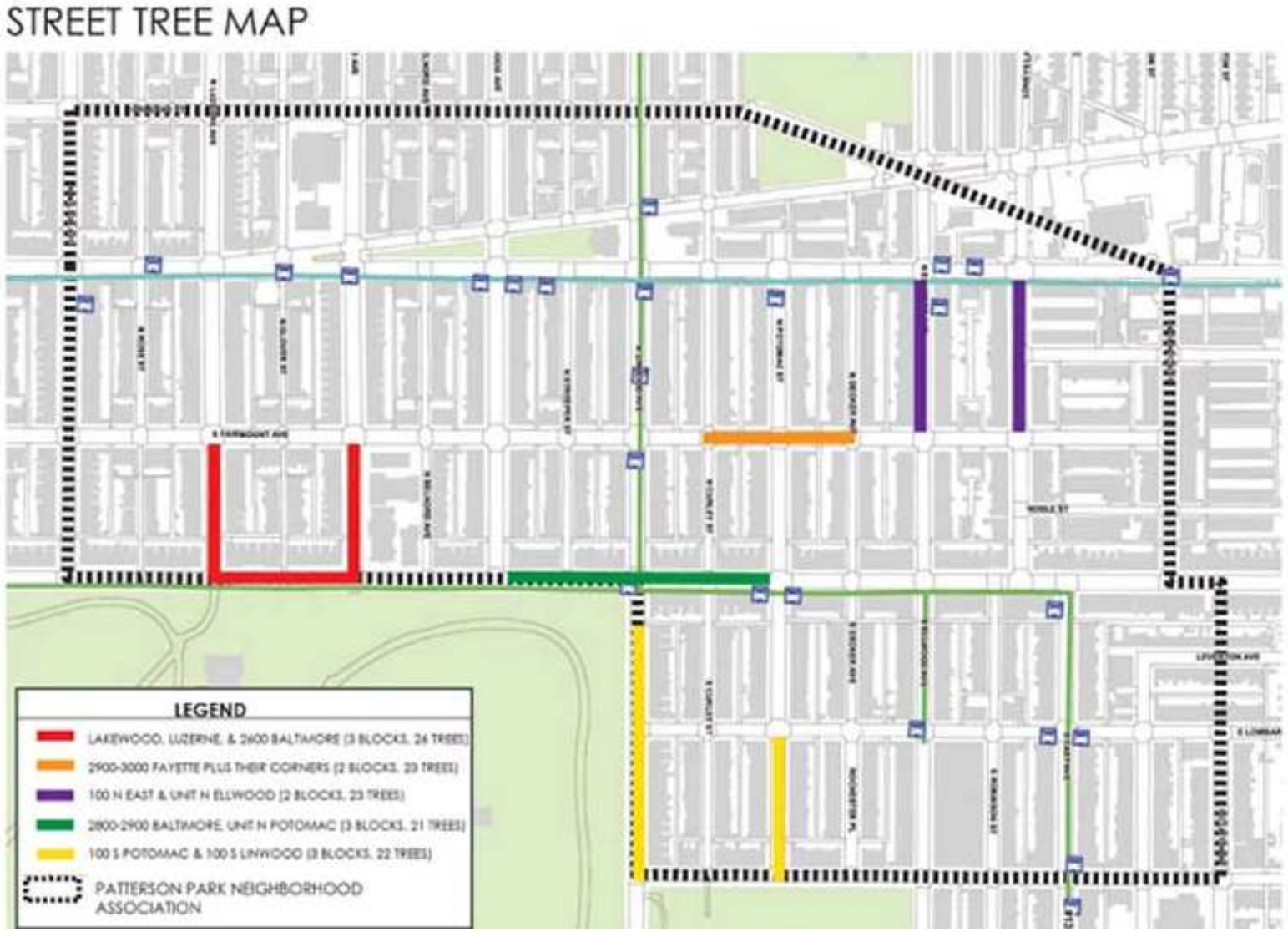
Lombard Street (existing, top) with proposed greening including new street trees, tree wells, and plantings (bottom)

Proposal for sidewalk improvements and new tree wells along Lakewood Avenue (NDC Streetscape and Greening Study, 2010)

Street trees and planting can also be used to shield unattractive walls (proposed - East Avenue)

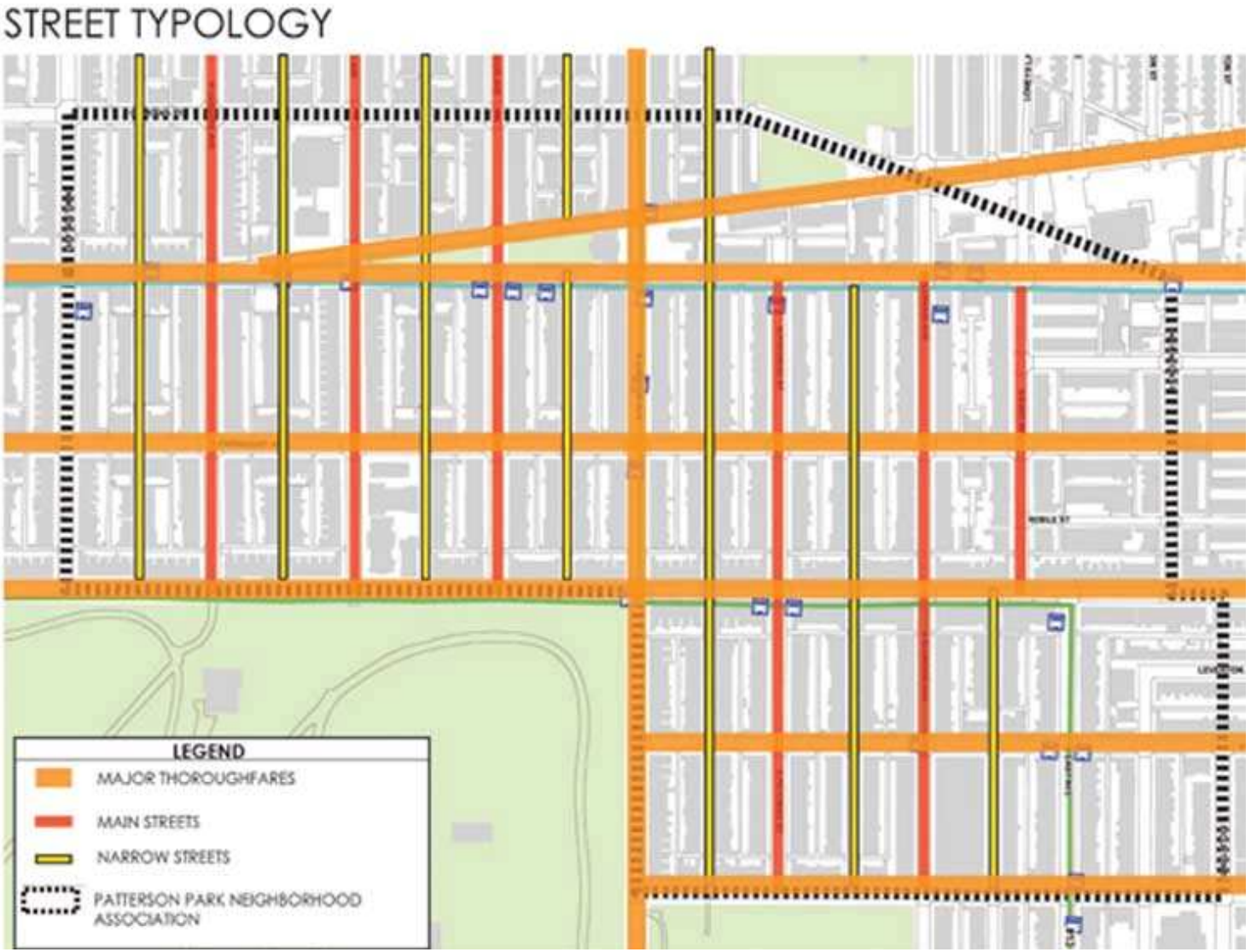
Patterson Park Neighborhood Tree Planting

Projects completed in 2010 - 2011



Patterson Park Street Typology

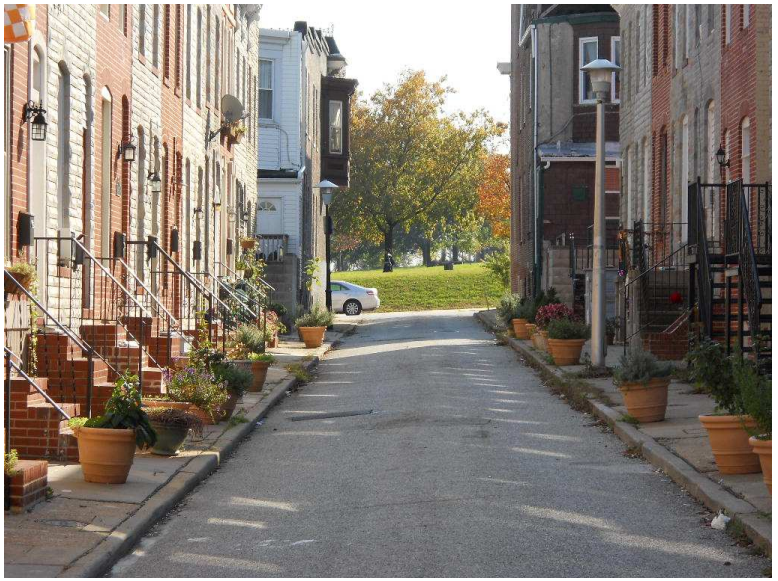
While the pattern of streets in the neighborhood offer a diversity of house and block types, it also results in different width of streets and sidewalks that will require different approaches for adding street trees, reducing storm water runoff, and planting in the fronts of houses.



b. Develop different methods for greening narrow blocks

While a majority of the streets in the neighborhood are wide enough for street trees, many others, like Decker, Luzerne, and Belnord are too narrow for traditional street tree planting. However, there are opportunities for greening these blocks using small trees, container gardens, and window boxes.

- **Identify blocks that are too narrow for traditional street tree planting and develop strategies for greening each of these blocks** (see map on page 18).
- **Develop drawings and information showing possible greening solutions** (Goal 2.d).
- **Fund a grant focusing on "pilot testing" greening one or two narrow blocks**.



Neighbors used planters along the curb on the unit block of N. Glover to add greenery.

c. Create greener alleys

Alleys offer opportunities for increasing the tree canopy, creating private and community outdoor spaces, and beautifying the neighborhood.

- **Develop and promote a green alley initiative in the neighborhood**.
- **Work with existing greening partners**. Blue Water Baltimore and the Center for Watershed Protection are currently implementing a "Blue Alleys" pilot project; work with them and others to expand this program (Goal 5.b).
- **Develop design guidelines for future alley greening efforts**. (Goal 2.c)
- **Make the alley gating process easier** (Goal 2.b).

Alley gating and greening project behind the eastern side of the unit block of N. Luzerne.

d. <u>Green front stoops and backyards</u>

Increasing the number of trees and landscaping on private property is needed in order to create "the greenest neighborhood in Baltimore". Opportunities exist in backyard spaces as well as in the front; "stoop gardens" not only beautify a house but create a better public realm and shared neighborhood space.

- **Create a neighborhood gardening club focusing on container gardens**. Residents are already creating stoop gardens (*image to the right*); a gardening club would allow people to share their knowledge and experience with others.
- **Develop an initiative to encourage residents to plant trees and gardens in their backyards**.
- **Develop drawings and informational material showing different options for backyard plantings/designs** (Goal 2.d).
- **Develop a concerted effort to reduce the rat population and mitigate their effects.**

One of Patterson Park's beautiful backyard gardens.

Goal #4

Make it easier for people to walk, use transit, and bicycle

Introduction

Transportation, for the purposes of this plan, includes walking, biking, vehicular traffic, and public transit. Transportation systems have a great impact on the neighborhood's economy and environment, as well as one's general well-being. By creating a sustainable transportation network that encourages alternate forms of transportation rather than relying solely on automobiles, the neighborhood will become safer, healthier, and have an improved overall quality of life.

As stated in the Baltimore Sustainability Plan, changing the existing infrastructure and citizen behavior patterns away from the single-occupant vehicle to more affordable transportation alternatives will likely be a daunting task for the City of Baltimore. While the situation is challenging, Baltimore does have a strong foundation to begin solving existing transportation issues and invest in more sustainable systems. It is important that, at the neighborhood level, public and alternative transportation be encouraged in order to promote usage. By focusing on the idea of "complete streets" at a neighborhood scale, improvements to the existing network and redeveloping in a transit-oriented fashion can make way for more substantial citywide initiatives.

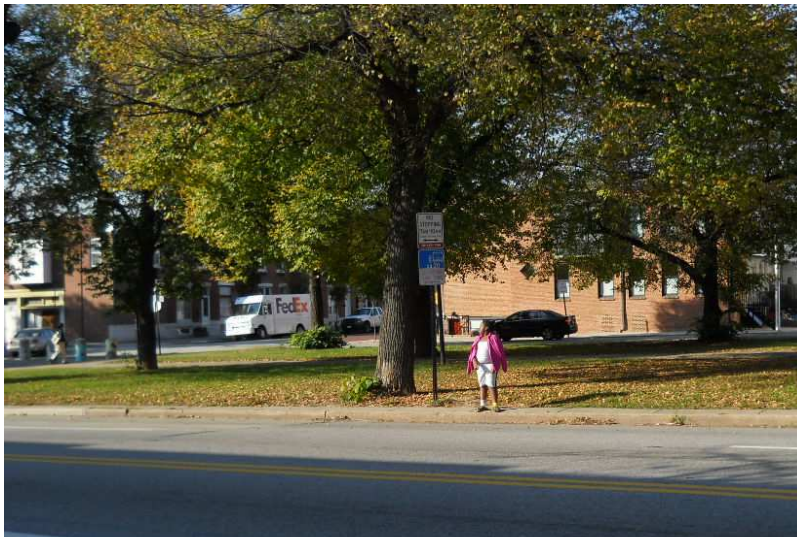
Strategies: Transportation

In 2011 the City created the Southeast Baltimore Complete Streets Plan, which includes the Patterson Park neighborhood. "Complete Streets" are defined as roads designed and operated to enable safe access for all users regardless of age, ability, or mode of transportation. The Greening Committee recognizes that this approach is needed in the Patterson Park neighborhood to make it more livable and sustainable.

a. <u>Improve public transportation infrastructure, visibility and use</u>

Allowing the neighborhood to become more intergraded with the greater Baltimore transit system will provide connectivity to other parts of the city while helping to eliminate the need for personal vehicle use. Improving upon the infrastructure and transit options available will help ensure an increase in future riders, reduce trip times, and improve the rider's overall experience. Continued investment in the development and improvement of the City's transportation system could help make this a reality.

- **Improve bus stops with new shelters, benches, and other amenities**. Fayette Street has the most bus routes and stops; improvements could create a transit boulevard that aids in the revitalization of Library Square (Goal 8)
- **Improve information for residents regarding transit options, routes, and schedules**. Utilize the PPNA web site and social media to provide links to the MTA and the Johns Hopkins Shuttle, as well as provide maps and other promotional material to residents.
- **Increase the number of Johns Hopkins shuttle service stops throughout the neighborhood**.
- **Explore car share and zip car options in the neighborhood.**



Bus shelters would create a welcoming and protective environment and encourage more people to use the bus. Above is a bus stop along Fayette Street at Library Square (top) and a proposed shelter for that same spot. (below)

b. <u>Improve bicycle and pedestrian safety</u>

Walking and bicycling immediately add accessible and affordable transportation modes. With many Patterson Park residents without automobile access, increasing the safety and convenience of these active modes of transportation will have multiple benefits. Infrastructure that supports and encourages walking and cycling calms traffic and leads to reductions in traffic injury and death. Walking and cycling also promote health, enhance neighborhood connectivity, and are zero emitting and non-polluting. Making neighborhood streets supportive of walking and cycling will lead to a healthier, more complete city.

- **Support the implementation of the Bicycle Master plan**. Continue to advocate for bicycle signage and facilities in the neighborhood.
- **Create better connections between neighborhood blocks and Patterson Park**.
- **Explore options for bike share programs within the neighborhood**.
- **Work with William Paca Elementary School and the Patterson Park Charter School to develop safe routes to school programs**.
- **Promote walking, bicycling, and exercising by temporarily closing select streets to automobiles**. This has been done in Roland Park and the city is exploring other locations for these Sunday morning events.

c. Implement traffic calming devices

Fast-moving vehicular traffic prevents residents from the enjoyment of walking, bicycling, playing and interacting socially. People do not like to live, walk, or travel on streets that are dominated by heavy traffic because they are unsafe, loud, air polluting, and often visually unattractive. Neighborhood streets are not the exclusive domains of the automobile; rather, they are important public spaces for a wide range of community functions, including commerce, recreation and social interaction. We can reclaim these spaces not through the elimination of automobiles but through calming of traffic.

- **Improve crosswalk markings and design**. These could be different materials, raised, horizontal murals, or simply repainted. In the Southeast Baltimore Complete Streets Plan, Baltimore, Fairmount, and Fayette Streets are identified as needing traffic calming measures.
- **Create "bump-outs" to slow traffic and reduce the walking distance at crosswalks** (Goal 4.b).
- **Educate residents on traffic calming measures in the neighborhood**.

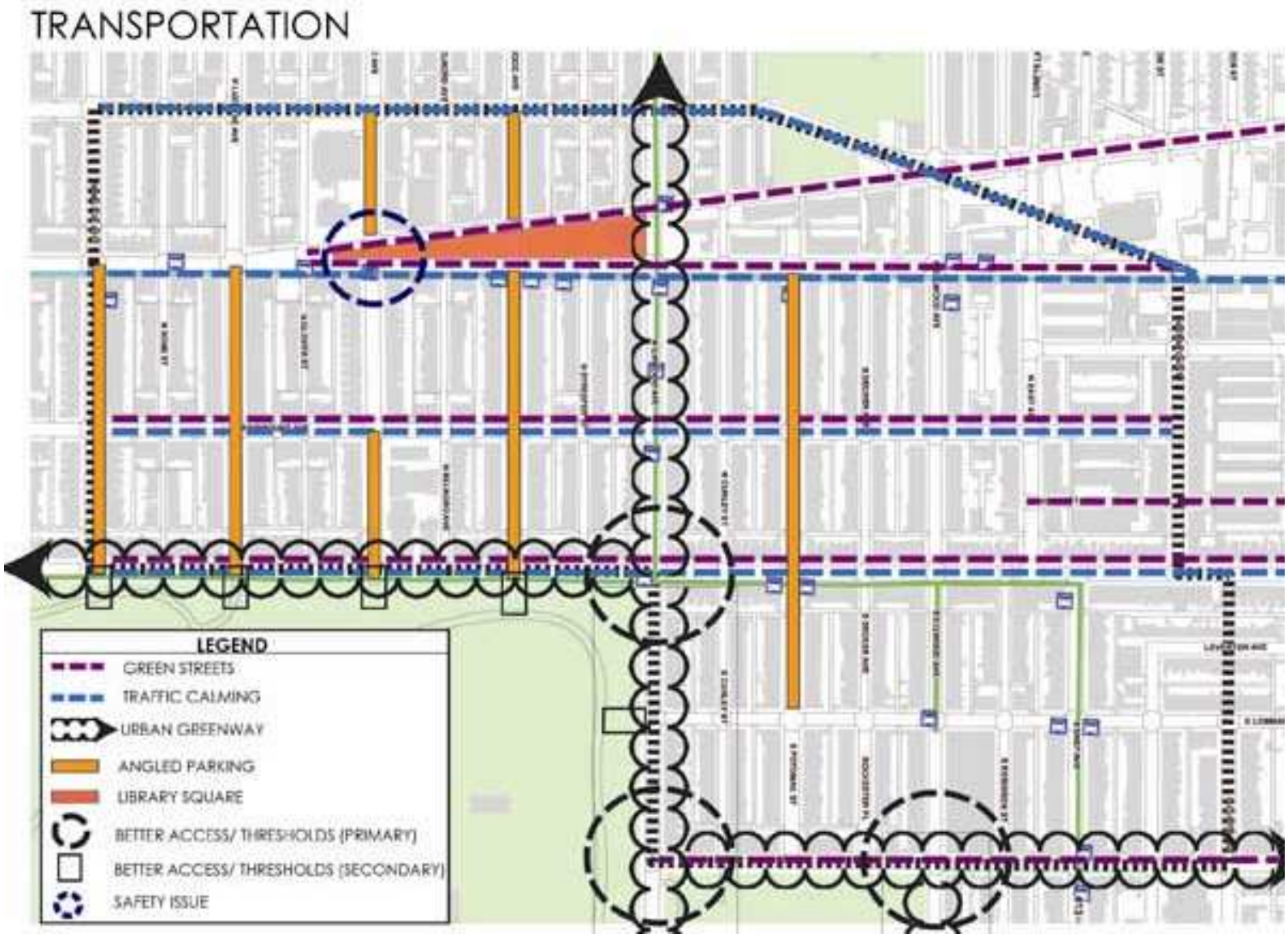
An example from Baltimore's Horizontal Murals program

Bump-outs and planters would improve the pedestrian connections between the neighborhood and the park (left)

A creative example of reclaiming a street for community use (taken from Parking Day)

Patterson Park Street Calming

This map is adapted from the Southeast Baltimore Complete Streets Plan prepared by Baltimore City Department of Transportation. Highlighted are streets recommended for traffic calming, "green" streets (increased tree planting and bio-retention areas), urban greenway (connections to areas outside of the neighborhood), and connections to Patterson Park.



Goal #5

Reduce storm water runoff in the neighborhood.

Introduction

Currently, most rainwater and precipitation that falls on the neighborhood hits hard, impervious surfaces, flows into storm drains, and eventually empties into the harbor and Chesapeake Bay. This storm water, and the heavy pollutant load that it carries, impacts the quality of our local drinking water and restricts the city's ability to create a " swimmable and fishable harbor by 2020", as per the goals of the Baltimore Sustainability Plan.

As a neighborhood and by household, we have an opportunity to improve water quality by "capturing" or "harvesting" this valuable resource through bio-retention plantings, green roofs, and other strategies that reduce storm water quantities and filter the runoff before it reaches our waterways or our groundwater supply.

Did you know the average storm water runoff from a typical property in the Patterson Park neighborhood generates about 18,500 gallons of water per year for *each* household (Assuming 780 sq. feet of impervious area times 38" of average annual precipitation). This equals about 400 daily five-minute showers!

Green streets proposal from the Butchers Hill Master Plan and Greening Project (NDC 2010)

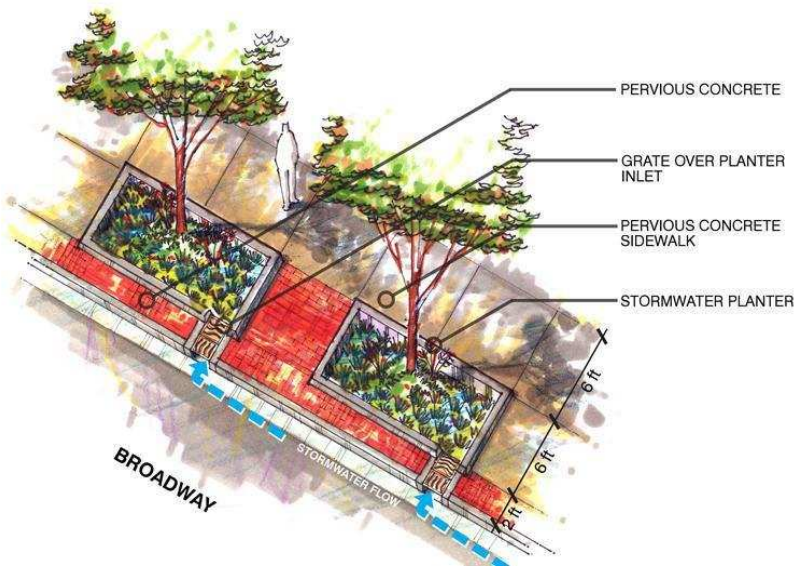
Strategies: Storm Water Control

a. <u>Increase street planting areas that filter storm water runoff</u>.

A good strategy to reduce and divert storm water flow, given the amount of water that runs off roofs and sidewalks when it rains or snows, is to enhance streets and sidewalks with plantings and better tree wells. Often called "rain gardens" or "bio-retention areas", these mini-green spaces offer a range of options:

- **Implement rain gardens in curb bump outs where appropriate.** Traffic calming "bump outs" at corners and on angled parking streets are planted areas that absorb rainwater and allow water to percolate to the groundwater channels. An average 100 SF bump out planted as a rainwater garden could take up and filter an average of 7,500 gallons of water per year.
- **Utilize tree wells to capture storm water runoff.** As noted in the diagram on page 26, larger tree wells with improved soil mix will and plants that can tolerate occasional wet conditions will aid in filtering storm water.
- **Enhance existing tree wells and street plantings**. Better planting strategies and care will allow for healthier trees and more beautiful sidewalks. The PPNA Greening Committee should develop a program specifically targeting tree- well design and planting while promoting better on-going care and maintenance in the neighborhood, especially by residents with tree wells adjacent to their homes. (Goals 2.d, 3.a)

An example of how a corner bio-retention area can be integrated into neighborhood streets (Lombard and Ellwood). Existing (top), proposed (bottom).



Examples of using the space along the streets and sidewalks to filter rain water and create better areas and tree wells. Methods include pervious concrete, storm water diverters, trees and corner bump-outs. Portland, Oregon's Green Streets Program is a leading innovator in the country and has been implementing urban storm water measures for several years.

b. <u>Reduce storm water runoff in alleys.</u>

Five-percent of the Patterson Park neighborhood surface area is intertwined with alleys, the vast majority of which are impervious concrete. This results in the runoff picking up more pollutants and trash while raising the temperature of the water flowing into storm drains, which significantly impacts the ecological health of natural waterways. While some of the storm water flow is designed to help flush the alleys and keep them clean, significant quantities could be diverted or allowed to drain using pervious surfaces.

The Blue Alleys project offers an opportunity to test different paving methods for reducing storm water runoff in these areas while maintaining vehicular and pedestrian access.

- **Work with Blue Water Baltimore and the City to expand the Blue Alleys project.**
- **Help residents on a block implement greening projects in their alleys.** This might include alley gating, planting workshops, or incentives. (Goal 2.c)

Linden Alley greening from San Francisco

c. <u>Reduce storm water runoff on private property</u>.

Each property in the Patterson Park neighborhood contributes about 18,500 gallons of water per year flowing off impervious surfaces like backyards and roofs. Helping residents and businesses reduce the storm water that runs off their property and into the street will reduce the volume of water and pollutants entering the streets and the harbor.

- **Create a rain barrel collective**. Rain barrels are a way of capturing the water that flows off a roof and using it to irrigate gardens and tree plantings. Because most residents cannot use all of the rainwater collected in a typical 80 gallon barrel, a rain barrel co-op that multiple houses could share is an option for reusing the runoff.
- **Increase the planting in back yards** (see Goal 4.C)
- **Encourage residents to plant green roofs.** Roofs planted with a 6" planting medium and drought tolerant, heat resistant hardy sedums and perennials can absorb anywhere from 30% to 60% of the precipitation that falls on the green roof. However unless there is a major renovation project underway, most homes in the neighborhood require reinforcing of the roof and building structure to support the load of a green roof. PPNA could form a co-op for securing cost effective design and installations services for homeowners wanting this option.

Rain barrels capture storm water from the roof to be used in gardening.

Goal #6

Improve air quality by reducing energy use and promoting renewable energy.

Introduction

Another major pollution source in the neighborhood is the air people breathe. While air quality solutions extend well beyond the PPNA borders, there are things individuals and businesses can do to improve air quality. Improving air quality also reduces Green House Gas Emissions (GHGs), of which the primary means is to use less energy and burn less fossil fuels in homes and businesses.

Burning fossil fuels such as natural gas, gasoline, and oil increases:

- Green House Gas Emissions, which absorb and emit infrared waves, thus holding heat in the atmosphere. These gases can contribute to localized warming trends and global climate change.
- Ground level ozone, which impacts Code Orange and Red days and lead to increased asthma attacks, pulmonary emergency room visits and other public health issues.
- Airborne pollutants that then wash into the Harbor and Chesapeake Bay.

Renewable energy, which is any form of energy generated on site such as solar hot water, active solar arrays (PV panels) or small wind turbines, is one way to reduce air pollution. There are growing opportunities, in the renovation and rehab of houses in the neighborhood, to incorporate renewable energy technologies and reduce GHG emissions and the use of fossil fuels.

Especially for air quality, success will come through education, outreach, and incentives to residents. Providing information and guidance will help them make better choices, save money, and lower the neighborhood's collective impact while also improving air quality in the region.

Strategies: Air Quality

a. Reduce home and business energy use.

Burning fossil fuels contributes the most to poor air quality. There is a very direct correlation between burning less fossil fuels and reducing the pollutants released into the air and lowering GHG emissions. Homes and businesses use about 40% of the total national energy supply, more than transportation. Making energy efficient improvements to buildings is a key strategy for creating a sustainable city.

- **Work with the Baltimore Neighborhood Energy Challenge** (BNEC) to expand the number of people participating in the program.
- **Create a neighborhood resource guide** for more extensive or multi-block energy improvements and renovations.
- **Promote people in the neighborhood making energy improvements,** such as including them on the annual home tour.

b. Increase street tree planting (see Goal 4.a)

Trees and vegetation help to filter the air and cool off the city by shading homes and businesses. This reduces energy use, creates more comfortable neighborhoods and improves air quality. Trees improve property values and can create a 2% to 5% energy savings if planted properly, especially on the west and south facades.

c. <u>Install white (cool) roofs and/or green roofs</u>

The Urban Heat Island Effect is a recently discovered phenomena where cities absorb energy from the sun especially on darker colors of masonry, paving materials and roofs. Installing white reflective roofs or green roofs (Goal 5.c) on as much surface area as possible will lower the ambient air temperature, reducing air pollution and saving energy dollars.

d. <u>Promote the use of renewable energy</u>.

Renewable energy is essentially any energy produced on site or not delivered by the power grid.

- **Develop a "neighborhood solar collective"** that can form a buyer's co-op to source solar panels, installers and provide information on active solar systems, adaptability and incentives and costs.
- **Develop and post to the PPNA website Information on rebates, tax incentives for renewable energy systems and energy improvements in general.**

Application of a white (cool) roof in Philadelphia

House in the Cherry Hill neighborhood with solar panels and a wind turbine.

Solar panels on a roof in Patterson Park

Goal #7

Reduce trash and improve the cleanliness of streets and alleys.

Introduction

At the neighborhood charette, Patterson Park residents identified several concerns, as well as solutions, for improving neighborhood cleanliness. Two of the primary concerns were littering and trash. Street and alley litter is often caused by individuals throwing their trash into the street or alley instead of placing it in an appropriate area for collection. This is compounded by business fliers and carry-out containers.

Trash problems often result from individuals and businesses that fail to secure their trash in a trashcan with a fitting lid. The dumping of large items in alleys and adjacent vacant lots is also a problem, especially when residents call 311 and get a slow response.

Finally, it is important to keep the fronts of houses and businesses clean and tidy, such as weeding sidewalks and gardens and cleaning one's own front stoop and sidewalk. Everyone's home values improve when a street looks clean and cared for.

Strategies: Cleanliness

a. <u>Improve home waste disposal and recycling</u>:

Reducing trash begins at home. When trash is not properly stored, set out on the wrong day, or placed in public trash receptacles there is good chance that dogs and rats will get into it and that the trash will scatter. Continued education, incentives, and enforcement are needed.

- **Work with block captains to disseminate information about trash and recycling rules, regulations, and enforcement**.
- **Support the PPNA Sector Vice Presidents on Sector–wide cleanups**.
- **Create Neighborhood "Junk Nights"**. As a supplement, or possible alternative to scheduling dumpsters, a "junk night" could be arranged with the Department of Public Works/Bureau of Solid Waste. Residents would be told in advance that on a particular night they could leave bulk trash items in front of their homes for collection the following day.
- **Expand PPNA streets and alleys cleaning efforts**.
- **Work with the Department of Public Works to regularly maintain storm drains**.
- **Use art to mark and decorate each storm drain.** Neighborhood children can be involved in painting or stenciling "Do Not Dump" and other slogans on storm drains.

b. <u>Improve the look of the neighborhood</u>

Well maintained buildings and sidewalks project an image that residents care about their neighborhood. In addition to making blocks more attractive, improving the sidewalks and fronts of houses will reduce trash and littering.

- **Improve the look and maintenance of sidewalks**. Broken sidewalks need to be fixed. Also, where loitering spots occur, such as the fronts of businesses, the width of the sidewalk could be "pinched" by large planters or other structures that discourage loitering.
- **Encourage residents and businesses to improve their front facades**. Residents should be encouraged to do things like paint their front doors and window frames or power wash stains left by window air-conditioners to improve the appearance of their homes. A list of easy improvements and incentives should be developed and disseminated to residents (Goal 2.b).
- **Promote the planting of stoop gardens** (see Goal 3.d)
- **Increase the number of public receptacles**. Identify the locations where new trash receptacles would best improve the litter situation. Additional receptacles for recycling only and/or dog poop only should be considered.

Patterson Park's Bloom Your Block event each spring helps residents beautify the fronts of their houses.

Attractively designed trash receptacles used in Bryant Park, NYC.

Goal #8

Integrate Library Square into neighborhood greening and sustainability initiatives.

Introduction

Library Square is a four-block-long triangular-shaped strip of green space in the northern portion of the neighborhood. It is bordered by Linwood Avenue to the east, Fayette Street to the south, and Pulaski Highway on the north. The eastern edge of Library Square is anchored by the Patterson Park branch of the Enoch Pratt Free Library and surrounded by a mix of residential rowhouses, storefront churches, and several former commercial buildings. This small park amidst the very dense neighborhood provides much needed open space and an opportunity to create a focal area in this part of the neighborhood. Although the location may present challenging design issues, abundant potential lies within this area.

The **GREENPRINT** master plan should incorporate previous plans and studies conducted for Library Square in order to catalyze these individual efforts and help create a vision that can be fully embraced by the community. Being the only community green space within the neighborhood boundaries, the greening and revitalization of Library Square should be an essential component of this master plan and integrated into current and future greening activities.

Strategies: Improve Library Square

Currently, the blocks adjacent to Library Square are dominated by heavy traffic, an unpleasant pedestrian environment, and abandoned businesses and homes. While the location of Library Square could take advantage of its easy access to other parts of the City along its network of streets and juncture of various forms of public transit, the lack of ownership from the neighboring communities has left the square poorly maintained and lifeless. The success of the square requires that it be connected to greening efforts of the rest of the neighborhood.

a. **Work with residents surrounding Library Square to expand greening activities**

- **Work with the PPNA North Sector Vice President to identify neighborhood leaders and the best methods for engaging them**.
- **Develop methods for outreach and information sharing for residents in the area**.

b. **Increase neighborhood activities in the square**

- **Hold existing activities, like Bloom Your Block and Mums & Pumpkins, at Library Square**.
- **Expand tree planting to the square and surrounding blocks**.

c. **Enhance the park and surrounding streets**

- **Review existing plans for the square and surrounding area and determine how to best move these forward**.
- **Improve lighting around the Square**.
- **Clean up and plant the area surrounding the Spanish-American War statue**.