PHILADELPHIA, PA

SUSTAINABLE NEIGHBORHOOD ASSESSMENT

June 19 - June 21, 2012

Sustainable Neighborhood Assessment Using LEED-ND

Through the Sustainable Neighborhood Assessment Tool developed by Global Green USA, public officials and local government staff are using the LEED for Neighborhood Development (LEED-ND) rating system to determine ways for future development in their communities to achieve high levels of environmental, economic, and social sustainability. LEED-ND integrates the principles of smart growth, walkable urbanism and green building into the first national rating system for neighborhood design. In Philadelphia, Global Green used the tool as a means to evaluate existing conditions and plans for the Graduate Hospital/South of South Street neighborhood, in order to identify opportunities to augment current revitalization efforts and develop recommendations to increase the neighborhood's overall level of sustainability.

Environmental Protection Agency

Technical Assistance provided by Global Green USA with Agora Group and the US Green Building Council to the City of Philadelphia was made possible through funding from the US EPA's Office of Sustainable Communities Building Blocks for Sustainable Communities Grant Program.

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ELEMENTARY SCHOOLS MARIAM ANDERSON PARK CARPENTER SQUARE DEVELOPMENT

AGORA GROUP

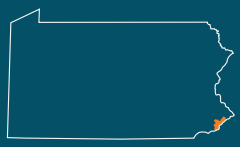
GLOBAL GREEN USA

U.S. GREEN BUILDING COUNCIL USGBC

Neighborhood Location

Pennsylvania

County/City of Philadelphia



South West Center City/ Graduate Hospital

Carpenter Square

Sustainable Neighborhood Assessment Process

The goal of the sustainable neighborhood assessment process is to identify topical and physical focus areas where policy or planning changes will promote sustainable urban development over the short and long term. To define these focus areas, Global Green USA and its team members utilize the Sustainable Neighborhood Assessment Tool, which is based on the LEED for Neighborhood Development (ND) criteria and checklist.

Prior to visiting the target neighborhood, the team conducts a thorough baseline review of existing planning documents, code requirements, and the stated city and stakeholder priorities for the neighborhood. An initial assessment is completed, with the credits in each of the three LEED-ND categories (Smart Location & Linkages, Neighborhood Pattern & Design, and Green Infrastructure & Building) marked as “achieved”, “not achieved,” “unknown,” or “not applicable.” Each credit is further ranked for the degree that it correlates to regional or local policy priorities, regulatory support, technical feasibility, market support, and stakeholder input. The checklist for the Graduate Hospital/South of South neighborhood is provided on pages 12-14.

This initial assessment serves as the point of departure for the Global Green team’s three-day site visit and evaluation. During the visit, the team walks each block of the target neighborhood, photographs examples of positive qualities and areas for improvement, and conducts a series of meetings with targeted stakeholders, city staff, and representatives of relevant public agencies. Throughout the process, the preliminary checklist is edited and refined to incorporate the team’s visual observations and contextual issues raised by stakeholders. The initial findings of the evaluation are grouped into broad categories noted on the next page in the green box. These categories are presented and discussed at a community workshop. The dialogue and suggestions which emerge during the community workshop are incorporated into the final version of the checklist and this report.

The assessment process then enables the team to identify a series of recommendations to augment and increase the neighborhood’s sustainability. The sustainability performance metrics are derived from the LEED-ND standards and serve as the technical foundation for the team’s specific policy and planning recommendations. The intention of the recommendations is to suggest policy, planning, and development changes that will promote the sustainable future growth of the Graduate Hospital/South of South neighborhood. Formal LEED-ND certification of the area is not the goal of the assessment process.

The Global Green team’s recommendations for the Graduate Hospital/South of South neighborhood are organized into four topic areas. Some recommendations could be implemented fairly quickly, while others will require long-term dedication and collaboration among public agencies and with private-sector partners. Following these recommendations will, in time, enable the neighborhood to look, feel, and perform as a sustainable neighborhood.

Neighborhood Background

The Graduate Hospital/South of South neighborhood is located approximately one half mile south of Center City (Philadelphia's primary shopping and business district) and directly east of the Schuykill River. The study area is bounded by South Street to the north, Washington Avenue to the south, Broad Street to the east, and 22nd Avenue to the west. The majority of development in the neighborhood is two- and three-story single-family townhouses that date to the turn of the century, with some larger-scale and more recently constructed senior housing towers and four- to five-story apartment buildings. Corner stores and shops are a traditional and fairly common component of the neighborhood. Broad Street features some larger retail chains such as Rite Aid and Washington Avenue is a regional destination for construction materials.

The urban form of the neighborhood is defined by low- and mid-rise buildings directly adjacent to the sidewalk, often with steps or small stoops leading to the first floor. This pattern of development, in combination with a significant volume of historic buildings, traditional architecture, brick paving, and intermittent small areas of landscaping, creates a pleasant and engaging pedestrian experience. South Street and the interior streets are narrow and feature on-street parking, which creates a low-speed environment that is generally safe for pedestrians and bicyclists. Broad Street and Washington Avenue, on the perimeter of the neighborhood, are multi-lane and more heavily trafficked. Bike lanes are provided on Washington Avenue but not on Broad Street.

The neighborhood has a long history of diversity dating back to the period immediately after the Civil War. At the turn of the twentieth century, the neighborhood was a true hub of Philadelphia's African American community, home to doctors, architects, lawyers and caterers, with bars, jazz clubs, concert venues, churches, and community institutions supporting the growing population. By mid century, however, the area was beginning to suffer from a series of setbacks and financial disinvestment. Residents and businesses slowly began to leave the neighborhood in the fifties and sixties, resulting in numerous vacant lots, dilapidated housing, few owner-occupied housing units, and concerns about crime. During this period, the residents and business owners that stayed behind worked diligently to maintain a strong and safe community. Starting in the late 1990s, the neighborhood began to see renewed interest in real estate investment, partly due to the proximity to the downtown and partly due to the largely intact unique historic fabric.

Over the past decade, hundreds of vacant lots and houses have been transformed, through the renovation of existing brownstone-style townhomes and new construction of townhomes and condominiums on formerly vacant or underutilized properties.

The new investment and increased demand to live in the neighborhood led to an increase of property values by 43% since 2005. While generally a positive trend, this rapid transition has also resulted in a reduction in rental properties, higher costs of housing, and the conversion of

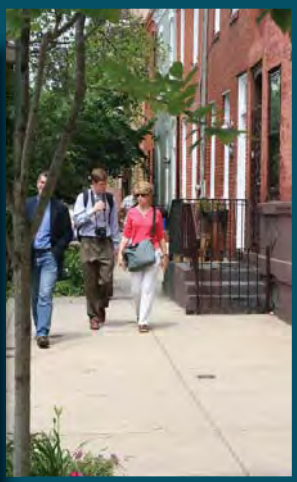
Neighborhood Highlights

PROXIMITY TO DOWNTOWN

PUBLIC TRANSPORTATION

ALLEYS

NEW DEVELOPMENT



WALKABLE STREETS

FOCUS AREAS

Related LEED-ND Credits

Community Public Open Space

Category: Neighborhood Pattern & Design
- Access to Civic and Public Spaces (credit 9)
- Access to Recreation Facilities (credit 10)
- Community Outreach and Involvement (credit 12)

Category: Green Infrastructure & Building
- Stormwater Management (credit 8)
- Solid Waste Management Infrastructure (credit 16)

Green Building & Infrastructure

Category: Smart Location & Linkages
- Bicycle Network and Storage (credit 4)

Category: Neighborhood Pattern & Design
- Walkable Streets (prerequisite 1 & credit 1)
- Mixed-Use Neighborhood Centers (credit 3)
- Reduced Parking Footprint (credit 5)
- Transit Facilities (credit 7)

Housing Diversity & Affordability

Category: Smart Location & Linkages
- **Locations w/ Reduced Automobile Dependence (credit 3)**

Category: Neighborhood Pattern & Design
- **Walkable Streets (prerequisite & credit 1)**
- **Mixed-Income Diverse Communities (credit 4)**
- **Neighborhood Schools (credit 15)**
- **Community Outreach & Involvement (credit 12)**

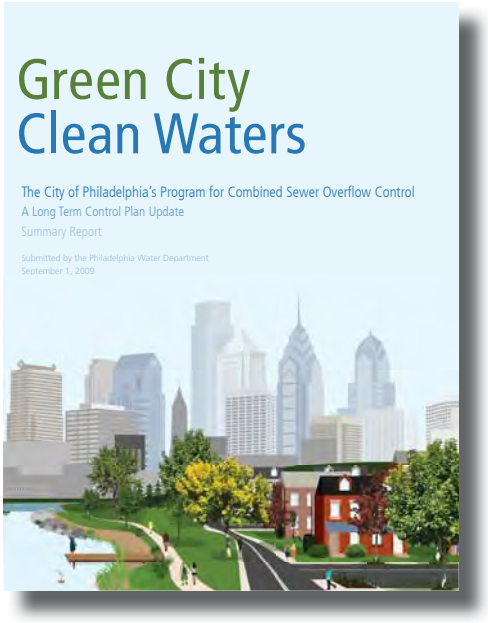
Stormwater Management

Category: Green Infrastructure & Building
- Stormwater Management (credit 8)

a number of corner retail uses to residential. Concurrent with revitalization efforts, the neighborhood has also experienced demographic changes over the last five years, with a significant reduction in the historic African American population.

Other factors influencing the development pattern of the neighborhood are the Green City Clean Waters Plan and the Better Blocks Initiative. The objective of the Green City plan is to manage stormwater locally and prevent combined sewage overflow (CSO) through a series of small-scale retrofits throughout the city such as swales, rain gardens, tree trenches, and green school yards. Better Blocks is focused on short-term transformations of streets, sidewalks, and intersections to identify opportunities for improved walking and biking.

The South of South Neighborhood Association (SOSNA) is one of the main community organizations engaged in the neighborhood revitalization efforts. SOSNA was originally formed to preserve and promote affordable housing and neighborhood revitalization. Today the organization is working to ensure that development proposals receive sufficient public review and that variance procedures are conducted in an open and accessible forum so that neighborhood residents have the opportunity to engage in defining the future form and character of the neighborhood.



Green City Clean Water is the City of Philadelphia's long term CSO reduction plan

Catalytic Projects

The catalytic project that attracted the Global Green team to the neighborhood is Carpenter Square, a mixed-use development that includes flats, townhouses, commercial space, and a public plaza located on the southeast corner of the intersection of Carpenter Street and South 17th Street. Philadelphia Redevelopment Authority (RDA) purchased several properties around the 17th and Carpenter intersection, with the objective of stimulating revitalization in the southern portion of the Graduate Hospital neighborhood. The RDA released Requests for Proposals (RFP) for the redevelopment of all of the parcels several times, but did not receive sufficient responses. Ultimately the Agency decided to bid out the parcels in two phases. The first phase focused on the parcels at the southeast corner of Carpenter Street and 17th Street. An award was made to an architect/developer team active in the neighborhood for the Carpenter Square project. Their proposal included a number of green features, including on-site stormwater management, LEED for Homes certification for the building, and an interest in pursuing LEED-ND certification for the overall project at the Stage 2 level for an entitled project. The South of South Neighborhood Association (SOSNA) and the Mayor's Office of Sustainability have both expressed support for the project, which is currently in the approvals and permitting phase.

Recommendations

Based on the team's review of the relevant regulations and plans for the neighborhood, a walking tour, and input from City staff and a number of community stakeholders, the following short- and long-term recommendations aim to increase the overall level of sustainability in the neighborhood.

Recommendation 1

Increase the Value of the Carpenter Square LEED-ND Certification

The LEED-ND effort already underway by the Carpenter Square development team creates a unique opportunity for the Graduate Hospital/South of South neighborhood to earn recognition by being home to a development with certification in this emerging national standard for urban sustainability. To increase the value of the Carpenter Square LEED-ND certification, the Global Green team recommends that the geographic area to be influenced by LEED-ND be expanded to include the properties on the northwest and southwest side of the intersection of 17th Street and Carpenter Street. While it is not feasible to formally expand the boundary of the Carpenter Square LEED-ND certification to include and additional parcels, as the development team does not have control of the additional parcels, the LEED-ND criteria can provide standards for promoting walkable, bikable, and resource efficient urban design, development, and neighborhood revitalization.

To accomplish this objective, the Philadelphia Redevelopment Authority should incorporate relevant LEED-ND requirements into the RFPs to select developer teams for the additional parcels. This will ensure that the future projects are able to contribute to the sustainability foundation created by the Carpenter Square LEED-ND certification. At a larger scale, the use of LEED for Homes and LEED-ND in the Carpenter Square area could begin the process of establishing a new standard for sustainable development for the entire Graduate Hospital neighborhood.

Project details for Carpenter Square by Johnston Stromberg Architecture calling out stormwater management measures including green roofs, permeable pavers and other green infrastructure

RESPONSIBLE DEPARTMENT

Philadelphia Redevelopment Authority

Increase the Value of the Carpenter Square LEED-ND Certification

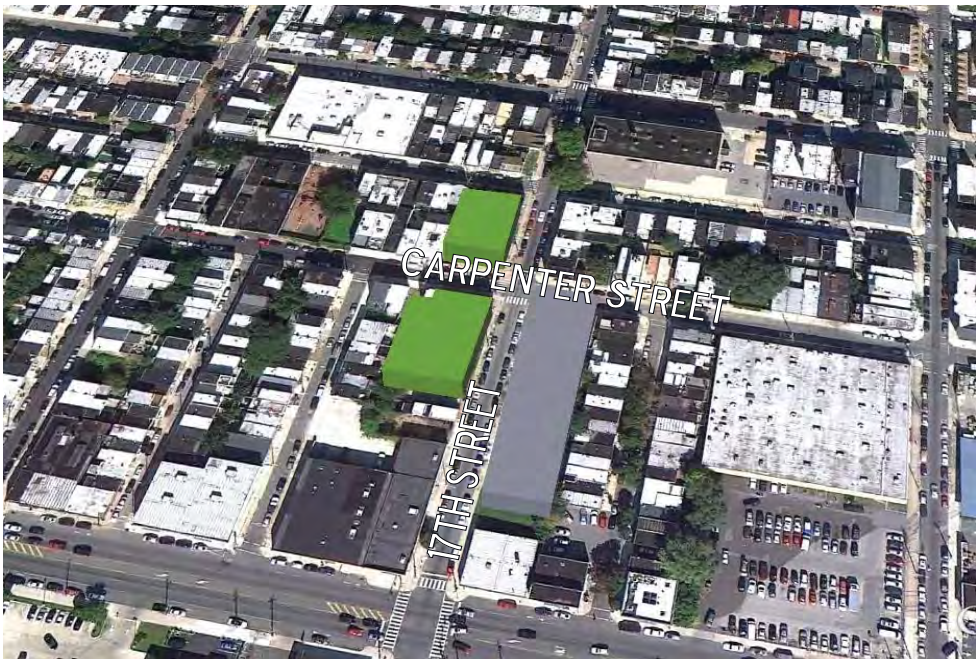
Recommendations:

1. Convene a meeting with the RDA and the Carpenter Square development team to discuss what baseline “green” requirements from LEED-ND should be included in future RFPs.

2. Enlist a qualified professional to review and revise the RDA’s RFP requirements to incorporate the key urban design and environmental performance standards of the LEED-ND prerequisites and applicable credits. The baseline for these requirements should be the LEED-ND prerequisites.

3. Consider stating a preference or allocating additional points in future RFPs to projects that commit to pursuing full LEED-ND certification.

4. Consider developing a master plan for all of the RDA owned lots in the vicinity of 17th and Carpenter. The master plan should establish an urban form that is consistent with the LEED-ND Neighborhood Pattern and Design (NPD) criteria including walkable streets, mixed-use neighborhood centers, reduced parking footprint, and tree-lined and shaded streets credits, as well as the Smart Location and Linkage (SLL) credits related to bicycle network and storage.



Vacant RDA owned properties around 17th Street and Carpenter Street

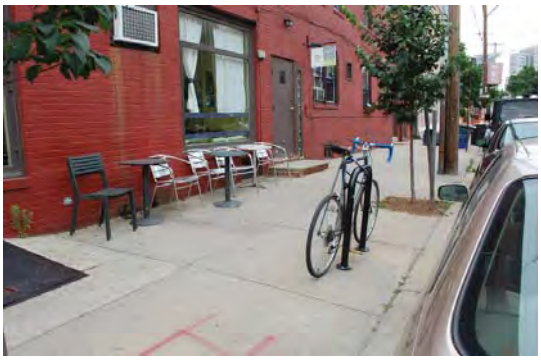
Recommendation 2

Enhance the Walking, Biking and Transit Quality of the Neighborhood

The largest category within LEED-ND, in terms of points, is Neighborhood Pattern & Design (NPD). This credit category emphasizes the creation of compact, walkable, vibrant, mixed use neighborhoods with connections to nearby assets. The Graduate Hospital neighborhood already has good infrastructure for walking, with a maximum approximate block length of 450 linear feet. Per LEED-ND this creates an ideal walking environment with well over the minimum 140 intersections per square mile required in NPD Connected and Open Community prerequisite. With regards to biking in the neighborhood, the existing narrow and slow moving streets with bike lanes creates an ideal network for cyclists. However, there is a need to improve the bicycle parking and storage component needed to complete cycling as a viable alternative transportation system that can support local business, improve public health, and reduce vehicle use.

Finally, the team observed one existing and one new development pattern that do not enhance the neighborhood's walkabiltiy. The first is the lack of lighting infrastructure, and the second is the construction of garages on residential building facades, respectively. These two elements require special attention as the community continues to redevelop. The following recommendations aim to enhance walkabilty by applying prerequisites and credits under NPD Walkable Streets metrics applicable to the Graduate Hospital/South of South neighborhood, as well as the SLL credit focused on bicycle network and storage standards.

Example of existing bicycle network in the neighborhood



Minimal bicycle parking for non-residential, community serving retail in the neighborhood

RESPONSIBLE DEPARTMENT

City of Philadelphia
Streets Department

Enhance the Walking, Biking and Transit Quality of the Neighborhood

Recommendations:

1. Make permanent the successful aspects of the Better Blocks program in appropriate locations through improved sidewalks, increased pedestrian safety measures, and additional bike infrastructure.

2. Limit curb cuts and garages on front building facades in order to preserve parking and respect the historic urban form and pedestrian-friendly environment.

3. Map existing neighborhood serving uses (based on the LEED-ND “Diverse Uses” categories) in order to prioritize additional bike and pedestrian infrastructure such as lane striping, sharrows, bicycle parking, transit shelters, and streetlights, etc.

4. Renegotiate the current transit shelter contract to increase number of new and replacement shelters that are installed annually in the neighborhood.

5. Explore using the neighborhood as a pilot project for adding pedestrian scale lighting. Quantitative or qualitative indicators such as reduced crime or increased sense of safety should be identified in order to provide tangible data to guide future installation of pedestrian lighting throughout the City.

Existing sidewalk condition adjacent to Julian Abele Park

Newer development with garages on front facade increasing length of curb cuts and dilute the historic fabric within the neighborhood

Recommendation 3

Maintain the Housing, Land Use, and Cultural Diversity of the Neighborhood

Among the over-arching objectives of LEED-ND are to support the social capital, physical health, and mental well-being within a neighborhood by providing a mix of land uses, diversity of housing types, and a variety of open spaces in order to facilitate social networking, civic engagement, community cohesion, and physical activity.

The rapid pace of revitalization in the Graduate Hospital/South of South neighborhood is creating subtle but significant changes to the land use pattern and also generating new needs on the part of residents. While new investment is building upon the inherent value of the neighborhood's physical attributes including location, street and block layout, and historic structures, there is a concurrent need to think holistically about the practical, social, and cultural needs of residents. This includes developing an understanding of the need to preserve or expand housing affordability, provide different services for residents, and increase the amount of open space and recreation opportunities.

A major neighborhood asset is the historic presence of corner stores. Small scale, local retail is a key component of a walkable environment. However, new development is putting this historic land use at risk. Several new developments have requested variances to convert C-1 and C-2 corner commercial zoning to solely residential, which is, over time, eroding the mixed-use character. Maintaining commercial storefronts and commercial zoning helps to preserve the dynamic nature of the neighborhood and promotes walking and biking.

Several community stakeholders also expressed a desire for a full-service grocery store, possibly on Christian Street. A weekly farmer's market and corner bodegas do provide local access to food, but a local grocery store would add significant value to the neighborhood and further support walking and biking.

In terms of open space and recreation, the Mariann Anderson Recreation Center is consistent with the LEED-ND criteria for recreation facilities. Still, there is a need for additional, smaller scale open space throughout the Graduate Hospital neighborhood. There are a number of publicly owned sites that were identified during the walking tour, but in some instances it was unclear of the parcels were already designated as park space. Furthermore not all of these parcels are improved, nor are all existing park spaces in the neighborhood open to the public. In a dense neighborhood it is crucial to leverage any and all existing open space. Creating joint use agreements to open privately held park spaces to the public during day light hours is one avenue for increasing overall park space.

RESPONSIBLE
City of Philadelphia Planning Department, and Parks and Recreation

Example of existing corner commercial within the neighborhood providing diverse uses within walking distance or residential buildings

Existing privately held open space within the neighborhood that could be used for public benefit

Integrating Industry into the Neighborhood Form

Recommendations:

1. Map the current number of corner locations with commercial zoning to allow for a comprehensive evaluation of the impact that could occur from variance proposals to remove commercial zoning.

2. Map locations with variances to remove the C-1 zoning and consider requiring that the C-1 zoning be reinstated at the time of new development or major renovations.

3. Conduct a comprehensive evaluation of the housing types, income ranges and number of income-restricted units in the neighborhood, with the goal of preserving existing affordable housing units and encouraging the construction of diverse housing sizes and types to meet current and future housing needs.

4. Conduct an assessment of existing publicly held parcels and park spaces to determine what arrangements can be made to improve the parcels and make them open to the public during day time hours, with maintenance and oversight potentially provided by SOSNA or other neighborhood groups.

5. Explore the feasibility of market establishing a grocery store on Christian Street. Many of the otherwise positive aspects of the neighborhood - compactness, walkability, and social cohesion - are undermined by the lack of this significant neighborhood resource. A grocery store also provides an informal place for residents to meet each other and foster stronger ties to the community.

Existing corner commercial that has been rehabilitated and is serving the neighborhood

Potential open space that has been cleaned-up but unclear if it will serve as a public open space to be maintained by the City or the Neighborhood Association

Recommendation 4

Improve the Neighborhood's Environmental Performance

Buildings and infrastructure in urbanized areas account for over 40% of energy consumption and represent significant investments in materials and the associated embodied energy. Development also typically changes hydrological patterns and results in higher ambient temperatures through the urban heat island effect. Local environmental quality, vitality of regional ecosystems, and the well being of residents can all be negatively impacted. LEED-ND addresses these issues primarily in the Green Infrastructure and Building category, through credits related to green building, energy and water efficiency, stormwater management, landscape water use reduction, heat island reduction, infrastructure energy and materials efficiency, and solid waste and recycling.

For the Graduate Hospital/South of South neighborhood, environmental performance measures should address existing buildings through weatherization, upgrades to heating and cooling systems, and plumbing fixture replacement. New buildings should be encouraged or required to achieve high levels of energy and water savings and incorporate stormwater features. Standards should also be established for the repair and replacement of public infrastructure. Combined, building and infrastructure measures can reduce energy and water use and costs, aid the City's overall efforts to address combined sewer overflow, and augment the existing green attributes of the neighborhood.

Green infrastructure recommendations include coordination with the Streets Department, especially regarding upcoming repaving projects, to incorporate high levels of permeability in the public ROW in order to address combined sewer overflow (CSO) issues.

Existing alley with limited pervious surfaces

Potential green stormwater infrastructure for alleys to improve on-site stormwater quality from the Green City Clean Water Long-Term CSO Control Plan

RESPONSIBLE DEPARTMENT

City of Philadelphia
Streets Department

Improve the Neighborhood's Environmental Performance

Recommendations:

1. Coordinate efforts between City departments, SOSNA, and other neighborhood institutions to encourage participation by qualifying property owners in weatherization programs.

2. Include energy and other green measures in the variance application and evaluation process for new construction and major remodeling projects, through reference to field-verified third-party standards such as LEED or Energy Star.

3. Consider providing an FAR bonus to projects that achieve high levels of energy performance or green building certification (Net Zero, Passive House, LEED Gold or Platinum).

4. Complete the green schoolyard projects at the Edwin M. Station School and Chester Arthur Schools.

5. Require that new construction and major renovation include stormwater retention features such as rain barrels, drywells, rain gardens, swales, and permeable paving.

6. Encourage the removal of impermeable surfaces and installation of low-impact development (LID) features on residential property by allowing for reductions of stormwater fees.

7. Develop and implement a citywide standard for lighting efficiency that apply when new street infrastructure is installed.

8. Establish standards for recycled content for street paving, sidewalks, and streetscape features.

9. Establish a neighborhood goal for tree canopy coverage of approximately 30% for SOSNA and other neighborhood organizations to work toward by encouraging planting on private property or through an organized effort to plant trees in currently vacant tree pits throughout the neighborhood.

10. Increase recycling outreach and enforcement related to small commercial entities, so they understand what is required by the City and what options they have for recycling. Many commercial owners are not currently aware that recycling service can be provided for little or no additional cost by their trash hauler.

Neighborhood sponsored solar trash compactor and recycling receptacles

Sustainability Assessment

Checklist

The Sustainable Neighborhood Assessment tool includes an annotated LEED-ND checklist created by Global Green. It is a key component of the process used to document and compare the assessment area against the LEED-ND prerequisites and credits. Each credit within the three credit categories (Smart Location & Linkage, Neighborhood Pattern & Design, and Green Infrastructure & Building) is marked as "achieved," "not achieved," "unknown," or "not applicable" under baseline conditions. Additional analysis has been done based on local planning policy, regulatory support, technical feasibility, market support and stakeholder input. The preliminary checklist analysis was edited and augmented during our site visit, stakeholder meetings, and after the community workshop. This information was then translated into an overall assessment of sustainable neighborhood performance.

LEED for Neighborhood Development: Project Assessment Checklist

GRADUATE HOSPITAL/ SOUTH OF SOUTH STREET NEIGHBORHOOD
PHILADELPHIA, PENNSYLVANIA

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input

Legend	
✔	Achieved
?	Unkown
✕	Not Achieved
–	Does not exist/ NA
	Explicit support/ No technical issues
	Lack of explicit support/ Minor technical issues
	Opposition/ Signficant technical issues
	Not an issue of concern

Smart Location and Linkage

✔	P 1	**Smart Location**
✔	P 2	**Imperiled Species and Ecological Communities**
✔	P 3	**Wetland and Water Body Conservation**
✔	P 4	**Agricultural Land Conservation**
✔	P 5	**Floodplain Avoidance**
✔	C 1	**Preferred Locations**
?	C 2	**Brownfield Redevelopment**
✔	C 3	**Locations with Reduced Automobile Dependence**
✔	C 4	**Bicycle Network**
✕	C 4	**Bicycle Storage**
✕	C 5	**Housing and Jobs Proximity**
✔	C 6	**Steep Slope Protection**
✔	C 7	**Site Design for Habitat or Wetland and Water Body Conservatior**
–	C 8	**Restoration of Habitat or Wetlands and Water Bodies**
–	C 9	**Long-Term Conservation Management of Habitat or Wetlands ar**

Philadelphia, Pennsylvania 1 6/20/2012

Sustainability Assessment

Checklist

LEED for Neighborhood Development: Project Assessment Checklist

GRADUATE HOSPITAL/ SOUTH OF SOUTH STREET NEIGHBORHOOD
PHILADELPHIA, PENNSYLVANIA

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input

	Legend
✔	Achieved
?	Unkown
X	Not achieved
–	Does not exist/ NA
	Explicit support/ No technical issues
	Lack of explicit support/ Minor technical issues
	Opposition/Signficant technical issues

Neighborhood Pattern and Design

✔	P 1	Walkable Streets- Principal Entries
✔	P 1	Walkable Streets- Building Height to Street Width Ratio
✔	P 1	Walkable Streets-Continuous Sidewalks
X	P 1	Walkable Streets-Garage and Service Bays
✔	P 2	Compact Development
✔	P 3	Connected and Open Community
✔	C 1a	Walkable Streets : Facades and Entries
✔	C 1b	Walkable Streets: Ground-Level Use and Parking
✔	C 1c	Walkable Streets:Design Speed for Safe Ped and Bike Travel
X	C 1d	Walkable Streets: Sidewalk Intrusions
✔	C 2	Compact Development
X	C 3	Mixed-Use Neighborhood Centers
X	C 4	Housing Diversity
X	C 4	Affordable Housing
✔	C 5	Reduced Parking Footprint
✔	C 6	Street Network
X	C 7	Transit Facilities
X	C 8	Transportation Demand Management
X	C 9	Access to Civic and Public Spaces
✔	C 10	Access to Recreation Facilities
X	C 11	Visitability and Universal Design
✔	C 12	Community Outreach and Involvement
X	C 13	Local Food Production
✔	C 14	Tree-Lined and Shaded Streets
✔	C 15	Neighborhood Schools

Sustainability Assessment

Checklist

LEED for Neighborhood Development: Project Assessment Checklist

GRADUATE HOSPITAL/ SOUTH OF SOUTH STREET NEIGHBORHOOD
PHILADELPHIA, PENNSYLVANIA

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Inpu

Legend	
✔	Achieved
?	Unkown
✕	Not achieved
–	Does not exist/ NA
	Explicit support/ No technical issues
	Lack of explicit support/ Minor technical issues
	Opposition/Signficant technical issues

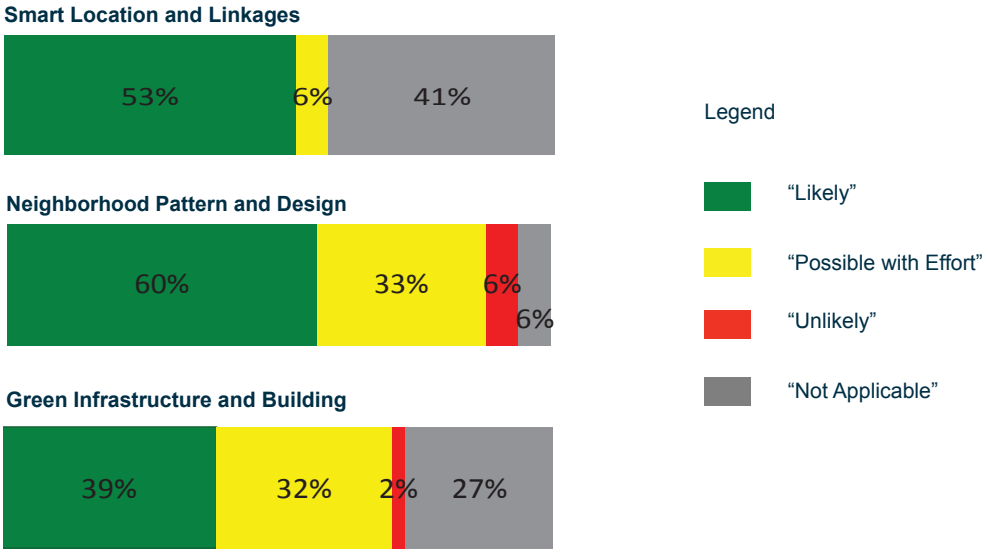
Green Infrastructure and Buildings

P 1	**Certified Green Building**
P 2	**Minimum Building Energy Efficiency**
P 3	**Minimum Building Water Efficiency**
P 4	**Construction Activity Pollution Prevention**
C 1	**Certified Green Buildings**
C 2	**Building Energy Efficiency**
C 3	**Building Water Efficiency**
C 4	**Water-Efficient Landscaping**
C 5	**Existing Building Use**
C 6	**Historic Resource Preservation and Adaptive Reuse**
C 7	**Minimized Site Disturbance in Design and Construction**
C 8	**Stormwater Management**
C 9	**Heat Island Reduction**
C 10	**Solar Orientation**
C 11	**On-Site Renewable Energy Sources**
C 12	**District Heating and Cooling**
C 13	**Infrastructure Energy Efficiency**
C 14	**Wastewater Management**
C 15	**Recycled Content in Infrastructure**
C 16	**Solid Waste Management Infrastructure**
C 17	**Light Pollution Reduction**

Sustainability Assessment

Summary

Based on in-field assessment, planning document review, various stakeholder meetings, and the community workshop, the Global Green team estimated which LEED-ND credits were "Likely," "Possible with Effort," "Unlikely" to be achieved, or "Not Applicable," considering existing conditions, technical feasibility, policy readiness, financial burden, and applicability to neighborhood conditions. The bar graph summary identified the overall level of sustainable neighborhood performance for the Graduate Hospital/South of South neighborhood. Traditionally, LEED-ND standards are best suited for new neighborhoods where the layout and design can be influenced, however existing neighborhoods that are well-sited and dedicated to social, physical, and environmental sustainabilty still have the ability to be a "green neighborhood." To that end, in all three of the LEED-ND credit categories, credits fall into the "Likely" category, which affirms the team's perception that the area has existing attributes of sustainability. Of the remaining credits, many fall in the "Possible with Effort" category, which shows the large potential for improving the neighborhood's level of sustainability specifically by pursuing the high-priority recommendations described in this report.



The summary table below shows the numeric values extrapolated from the percentage of credits identified as "Likely" above. While these values do not correlate exactly to specific LEED-ND points, they provide an estimate of the neighborhood's potential level of future achievement. It should be noted that this is a rough measure of performance, and not an exact representation of the project's level of possible certification. It should also be noted that all the prerequisites would need to be achieved if certification was to be pursued.

Point Requirements for LEED-ND Certification

Certified:	**40-49**
Silver:	**50-59**
Gold:	**60-79**
Platinum:	**80+**

Graduate Hospital/SoS Neighborhood- Philadelphia

LEED for Neighborhood Development

	Total Posible	Achievable
Smart Location & Linkage	27	14
Neighborhood Pattern & Design	44	24
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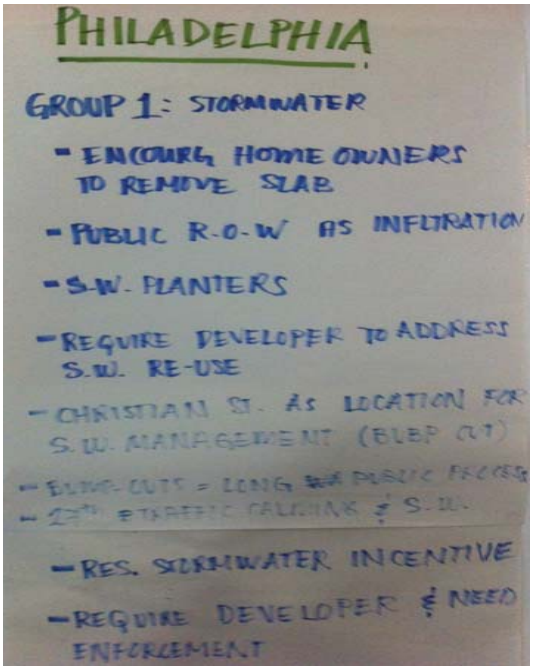
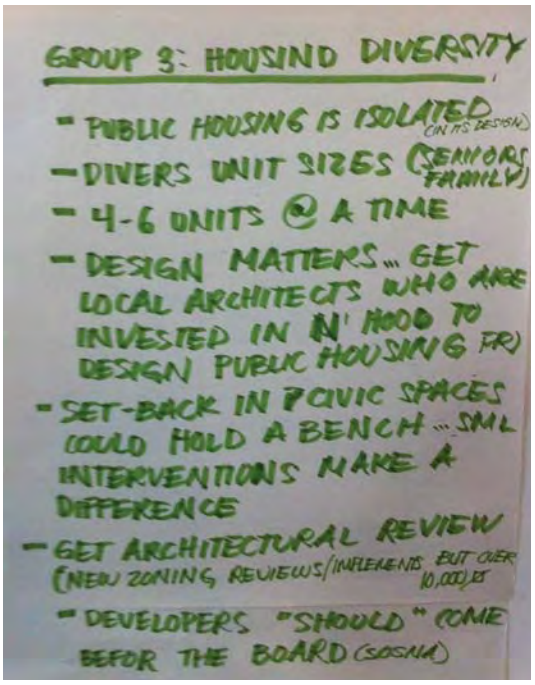
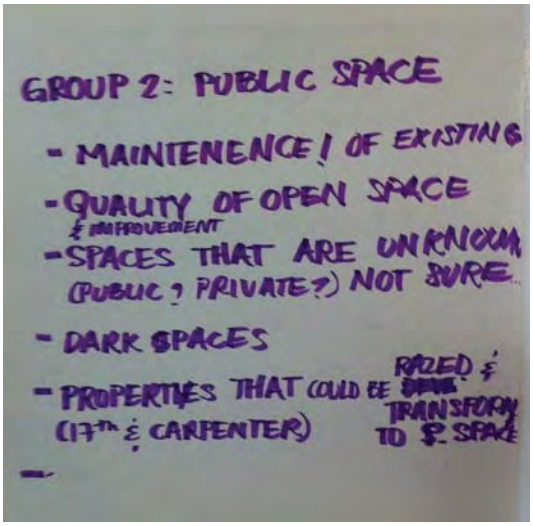
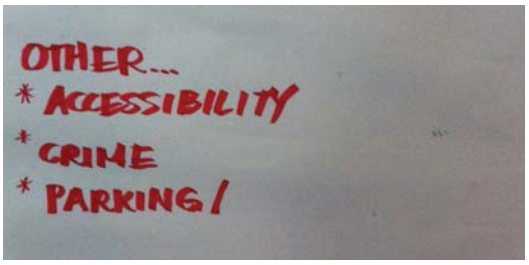
Workshop Notes









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