

# Cincinnati, OH

## Sustainable Neighborhood Assessment

October 21-23, 2015



## Sustainable Neighborhood Assessment

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 Cincinnati, Global Green used the tool as a means to evaluate existing conditions and plans for the Northside neighborhood, in order to identify opportunities to augment current revitalization efforts and develop recommendations to increase the neighborhood's overall level of sustainability.

## Assessment Team + Funding

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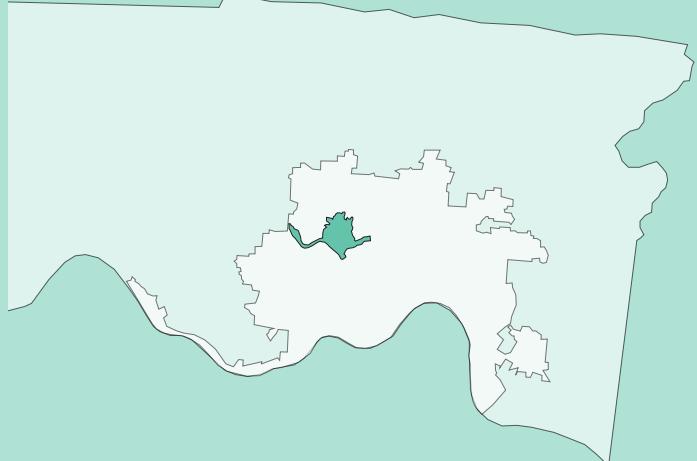
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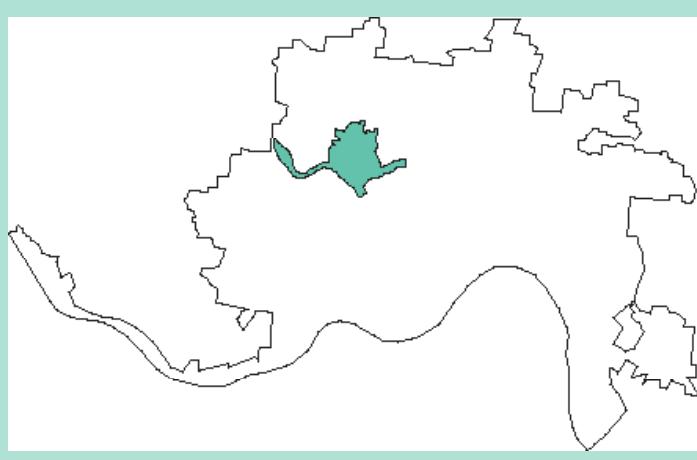
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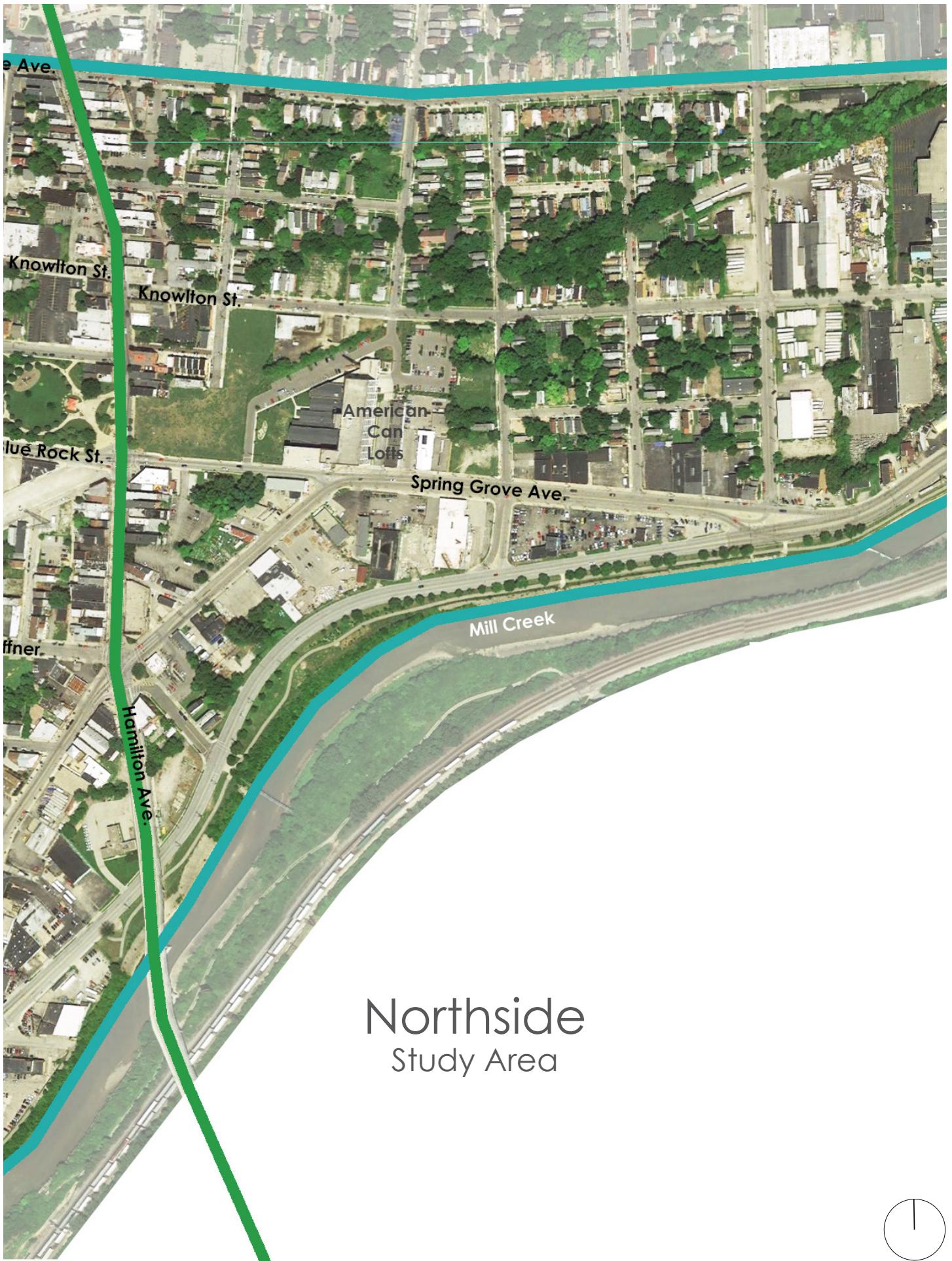


Hamilton County, City of Cincinnati



Northside





# Sustainable Neighborhood Assessment Process

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The goal of the Sustainable Neighborhood Assessment process is to identify issues and places where focused policy or planning changes can promote sustainable urban development over the short and long term. The objective is to improve the neighborhood's day-to-day sustainability and increase its resilience. To define these focus areas, Global Green USA utilizes the Sustainable Neighborhood Assessment Tool, which is based on the LEED for Neighborhood Development (ND) criteria.

Prior to visiting the assessment area, the team conducted a review of existing planning documents, code requirements, maps, and stakeholder priorities. An initial assessment was then 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.

This initial assessment serves as the point of departure for the Global Green team's multi-day site visit and evaluation. During the visit, the team walks 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, a preliminary LEED-ND checklist is edited and refined to incorporate the team's visual observations and the contextual issues raised by stakeholders. The final checklist for the Northside neighborhood can be found on pages 22-25.

This assessment process then enables the team to identify a series of recommendations based on LEED-ND credits to augment and increase the neighborhood's sustainability. Recommendations also cover policy, planning and development; changes that aim to realize a more resilient and sustainable future for Northside. Some recommendations can be implemented fairly quickly, while others will require policy or regulatory change and long-term collaboration among public agencies, local institutions, and private sector partners, as well as multiple sources of funding.

# Neighborhood Assets



1. Thriving small businesses 2. Alleys contribute to connectivity 3. Northside is known for its community-based activities and initiatives such as grocery co-op, Apple St. Market 4. Hamilton Avenue is a mixed-use and historic corridor, The neighborhood as a whole has a historic building stock 5. The proposed transit hub is a catalyst for change in the center of the neighborhood.

# Neighborhood Background

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The Northside neighborhood is located in Cincinnati, Ohio. Global Green and the Northside Community Council established a study area bounded by Chase Ave. to the north, Crawford St. to the east, Spring Grove Ave. to the south, and Colerain Ave. to the west. Hamilton Ave. serves as the central corridor through the neighborhood, and houses the second-busiest transit hub in the city, at the corner of Bluerock and Hamilton. This is the site of a proposed transit center that will include new passenger shelters, pedestrian-scale lighting, next bus information, sidewalk and waiting area improvements, and other amenities.

## **Assets**

**Community-Based Activity and Initiatives:** The historic character on Hamilton includes ground-floor retail (approximately 110 storefronts) combined with second- and-third-story housing or office space. This mix creates a built-in user group for the street merchants as well as contributes to keeping the street active and populated. People characterize Northside as a little village within the City of Cincinnati. The Community Council, merchants groups, activists, property owners, and residents appear to be active in the neighborhood in multiple ways including supporting festivals and parades, advocating for resources from City Hall, and initiating projects in their backyards, in under-used parcels, or in former industrial facilities.

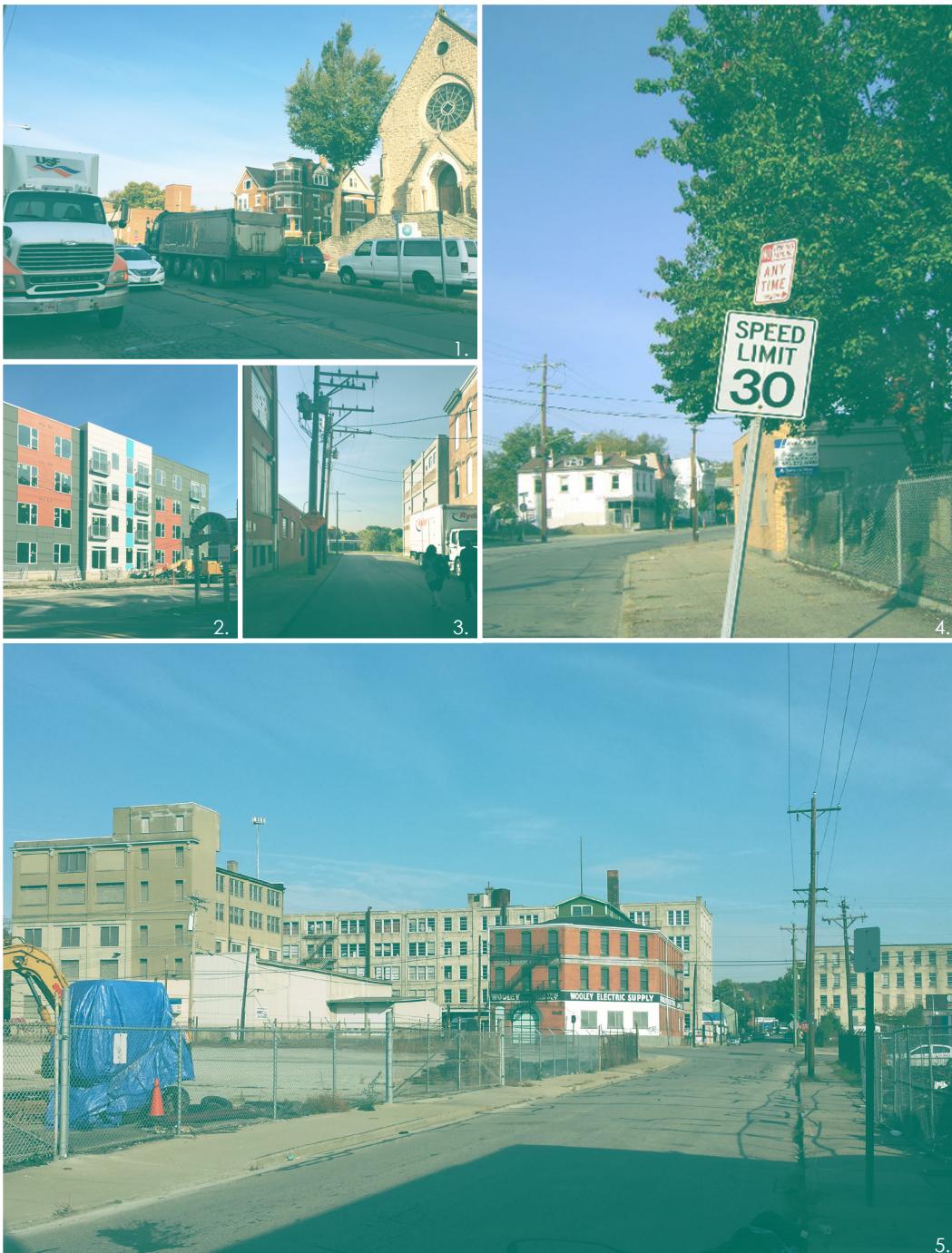
**Proximity to Natural Features:** Northside is located in the Mill Creek Valley and is surrounded on three sides by natural features. These are Mt. Airy Forest, the Mill Creek, Parker Woods, and Spring Grove Cemetery and Arboretum (though the nearest entrance is about half a mile to the east on Spring Grove Ave.). Additionally, a well-used public park that hosts a weekly Farmer's market, Hoffner Park, is centrally located and accessible to most of the residents. Hiking trails lead into the hilly Parker Woods, and cycling and walking path is located along Mill Creek.

## **Challenges**

**Community Character:** The 5-point intersection known as Knowlton's Corner has the potential to be a focal point and welcoming gateway to the community. This location, however, is currently dominated by fast-moving vehicles and is encircled in part by under-utilized buildings, buildings situated far away from the sidewalk, a gas station, and a drive-through fast food chain. Improvements to the 400 block of Hamilton are also contingent on the redesign of this intersection. The level of cleanliness and maintenance in this and many areas of the neighborhood is poor, exhibiting what can be interpreted as a lack of care or stewardship.

**Managing Investment in Northside:** Northside has been able to exist as a place of experimentation and creativity partly due to the availability of lower-cost housing and access to affordable retail and underutilized industrial properties. As development interests in Northside increase, there is a significant risk that housing costs will increase and former industrial properties will be converted to housing. While new residents will increase the number of customers to support Hamilton Avenue businesses and build the population needed to support a local grocery store, there is the potential for long-term neighborhood members to be forced out of their living situations and thus lose the economic and cultural diversity of the neighborhood. (Continued on page 8)

# Neighborhood Challenges



1. Blue Rock St, one of the main east-west corridors in the neighborhood, is host to industrial-sized vehicles and has few pedestrian crossings with stop signs 2. New development on Hamilton Ave. didn't provide affordable units , but rather, units that run above affordable rates for 100% AMI. 3. Underutilized industrial properties on the west side present opportunities for more compact development but currently create an empty zone in a prime area walkable to public transit 4. Many streets are not designed for safe bicycle and pedestrian traffic 5. Large blocks dominated by single owner cut-off pedestrian, bicycle, and vehicle traffic with no connections through

# Neighborhood Background Continued

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## **Accessibility and Overall Pedestrian and Cyclist Safety**

Many areas of the community are not fully accessible by foot, wheelchair, or bicycle, due to broken sidewalks, utility poles and other infrastructure blocking the path of travel, and the high speed of traffic. Pedestrian crossings on Hamilton are faded and poorly marked and bike lanes or routes through the neighborhood are not typically marked or protected. Connections through the neighborhood are compromised by large city blocks, often composed of agglomerated parcels owned by one entity and blocked-off to through traffic. This prevents people from easily accessing businesses along Colerain, isolates the west side of the neighborhood, and contributes to lack of access to the Mill Creek and Parker Woods.

## **Recommendation Approach and Strategy**

The recommendations presented over the following pages were developed through careful study of regional and local planning documents, city staff and stakeholder interviews and a thorough on-the-ground analysis of community characteristics. Each of the resulting recommendations have been informed by best practices as identified by LEED-ND and have been produced with specific attention given to long-term sustainability and resilience.

Six key overarching themes guide the specific recommendations:

- (1) Implement a Broad Spectrum of Affordable Housing Strategies
- (2) Maximize Investment in the Transit Center
- (3) Improve Neighborhood Connections
- (4) Transform Knowlton's Corner into a Welcoming Gateway
- (5) Strengthen the Structure and Diversity of Community Engagement

## Recommendations

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1 Implement a Broad Spectrum of Affordable Housing Strategies	2 Maximize Investment in the Transit Center
3 Improve Neighborhood Connections	4 Transform Knowlton's Corner into a Welcoming Gateway
5 Strengthen the Structure and Diversity of Community Engagement	

## Implement a Broad Spectrum of Affordable Housing Strategies

To preserve housing affordability, the community should work with developers and housing intermediaries such as LISC, Enterprise, or Neighborworks to pursue strategies for both long-term affordable home ownership and rentals. These can include: sweat-equity or self-help, renters equity, lease purchase, land trusts, use of HUD mortgage subsidies for senior or special needs populations, and low-income housing tax credit-funded rental developments. If the market allows, modest renovation of some of the smaller historic existing housing stock is another option. Ensure that granny flats or second units are permitted in residential zones, as a way to increase housing options and density in a sensitive and unobtrusive way. Additionally, discussing an inclusionary zoning ordinance specifically for Northside or City-wide could be an option.

Several stakeholders expressed concern regarding the loss of housing affordability. Others expressed a need for housing diversity, including housing geared toward student single parents, LGBTQ, addiction Services, housing for those experiencing homelessness including women's only, and elderly.

LEED for Homes gives credits for diverse and affordable housing to promote socially equitable and engaging neighborhoods by enabling residents from a wide range of economic levels, household sizes, and age groups to live in a community through NPD Credit: Housing Types and Affordability. This credit awards points for providing up to 15% of available units subsidized (Good = 5% at 60%, 1 point; and 10% at 80%, 1 point. Great is 15% at 60%, 3 points; and 25% at 80%, 3 points). We heard from the community that \$300-\$500 per month is considered affordable rent for existing residents. New apartments being built or new on the market are being priced at \$750-\$1,200 per month. With Area Median Income of Northsiders at \$34,500, \$700 per month is already at 100% AMI. \$560 is at 80% AMI, and \$420 is at 60% AMI.



Phoenix's Low-Income Historic Housing Rehab Program allowed many lower-income home owners to make improvements on their property and retain their equity.

## Action Items

1. **Create a Land Trust:** Land Bank - Vacant Properties - might not be able to own properties with occupants. Land Trust - Business District Properties (no land trust exists currently). Habitat for Humanity would like to partner to do condos >The area has Land Bank this changed with clearing title on foreclosed properties. A land bank could be established to ensure that key parcels are used for affordable? A4 or community businesses.
2. **Consider a Residential Historic Overlay Zone:** Historic Stabilization Program - Farmer's Hotel - Cincinnati Preservation Commission. Phoenix example of Low-income Historic Housing Rehab Program.
3. **Use Transit Hub as a Catalyst for Affordable Housing:** High Quality Transit Areas locate affordable housing next to public transit, as public transit ridership has its foundation in lower-income riders and improvements to public transit access and frequency benefits lower-income riders proportionately more than higher-income riders who may have alternate transit options.
4. **Zoning:** Explore inclusionary zoning to try and meet/maintain LEED-ND credits. Density bonuses, fast-track permitting, and reduced parking requirements for subsidized affordable housing. Ensure that second units or granny flats are permitted by right.
5. **Work with City to make energy performance incentives work for more diverse building types:** Amend the property tax abatement that is applicable to LEED Certified new construction to also apply to renovations. Revise city incentives for energy performance to apply to rental units, as renters are 40% of residents in Northside.



Northside has many historic properties that have fallen into disrepair

# Recommendation 2

## Maximize Investment in the Transit Center

The creation of a transit hub at Hamilton and Blue Rock presents a major opportunity to increase the urban character and function of the neighborhood. Currently there are many bus transfers on Hamilton, but this activity is not resulting in any type of unique placemaking, or contributing to the neighborhood character. The Transit Hub has the potential to create a dynamic civic space for the Northside community, as a compliment to Hoffner Park on the west side of Hamilton. For this to happen, the transit hub should be designed to be a plaza where buses stop, rather than a transit center with a token public plaza. If designed correctly, the transit hub could support small-scale retail or food uses, which would increase activity in the area and public safety. The transit hub should provide excellent way-finding, route and schedule information to work for both the frequent and occasional transit user. The Transit Center should also be fully accessible by persons with disabilities and provide a smooth interface for transit riders arriving by Red Bike, or their own bicycle.

According to official documents, the new transit center will include new passenger shelters, pedestrian-scale lighting, next bus information, sidewalk and waiting area improvements, and other amenities.

LEED-ND gives credit for high-quality transit facilities. Shelters for transit facilities should be up-to-date on required improvements such as ADA code, and should be covered, at least partially enclosed to buffer wind and rain, have seating and illumination, and have signage that displays transit schedules and route information.

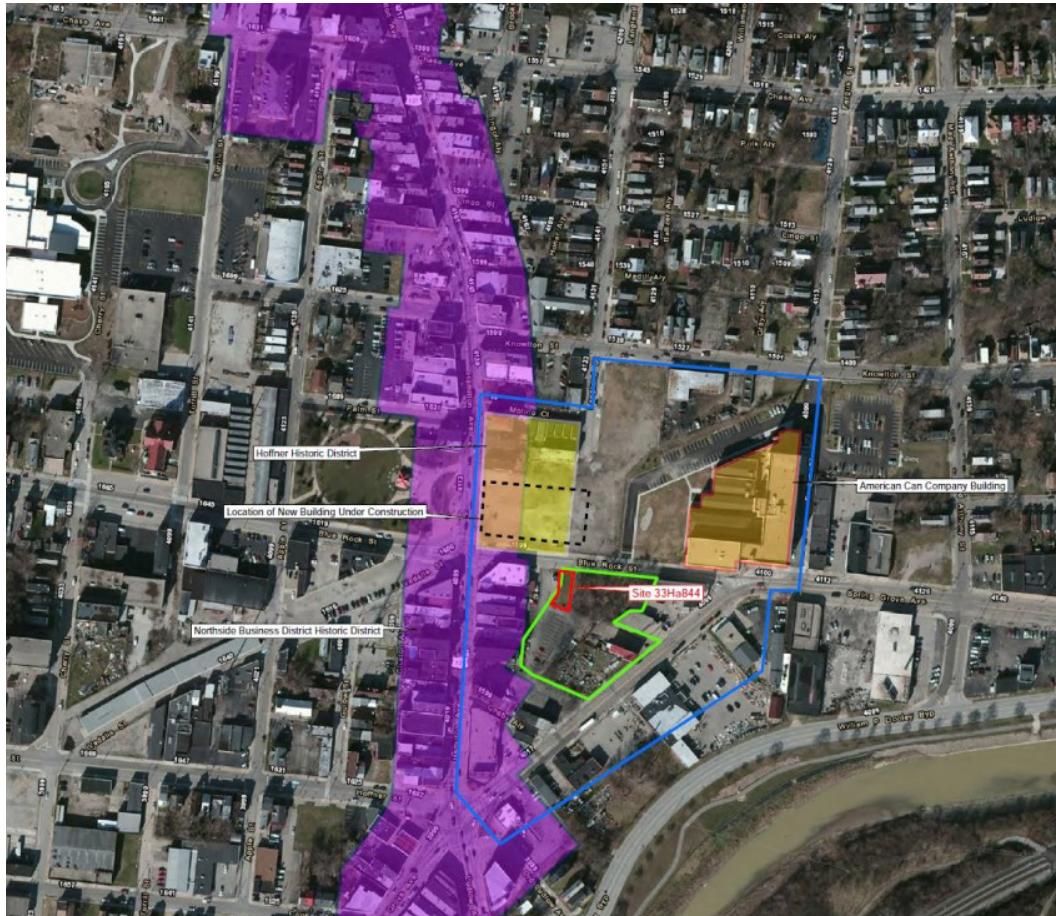
Transit-oriented development around the transit hub can support car-free living and equitable accessibility. LEED-ND recommends that at least half of all residences in the neighborhood should be within a 1/4-mile walking distance of many diverse uses (4-20) such as a supermarket, hardware store, pharmacy, bank, gym, hair salon, laundromat, restaurant, childcare, senior care, rec center, medical clinic, school, library, park, government office, etc.



Parking lot that is likely to house the future transit center

## Action Items

1. **Placemaking at Transit Center Site:** Conduct a creative placemaking event (partner with students from a local higher education institution such as DAAP or a local urban design organization) where features are temporarily installed that engage area residents to think about what "could be" in the space. The outcomes should influence the final design.
2. **Bus Shelters:** Bring bus shelters in the Northside area up to LEED-ND standards.
3. **Diverse Uses:** Encourage development around the transit center that fills the gaps in current retail and services. These include uses that stakeholders told us were missing in the neighborhood such as: grocery, laundromat, addiction treatment, place to send mail, fresh food in corner store on Hamilton.



## Improve Neighborhood Connections

The quality of connectivity throughout the Northside neighborhood varies widely and represents a focal point around which other neighborhood improvements can fall into place. Currently, some areas, such as the Hamilton corridor, are very accessible, while others, such as the southern Spring Grove Ave./Mill Creek area, are not. Various factors such as insufficient markings at crosswalks, high traffic speeds, and large-sized blocks contribute to discontinuity in the pedestrian and bicycle experience. This is of particular concern for people aged 0-100 with varying physical abilities.

To support pedestrians LEED-ND provides a multitude of quantitative measures and credits to support safe, walkable, and bikeable neighborhoods. LEED-ND Credits include:

Sidewalks should be available along both sides of the street. They should be at least 10' wide on retail or mixed-use blocks, and at least 5' wide on all other blocks.

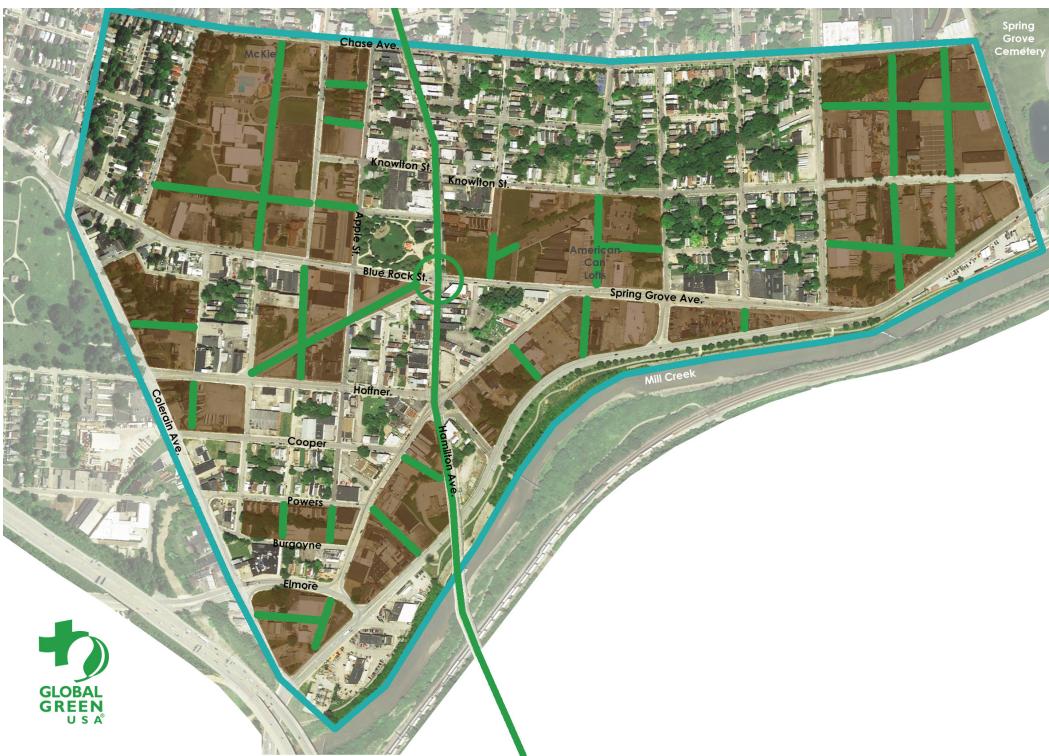
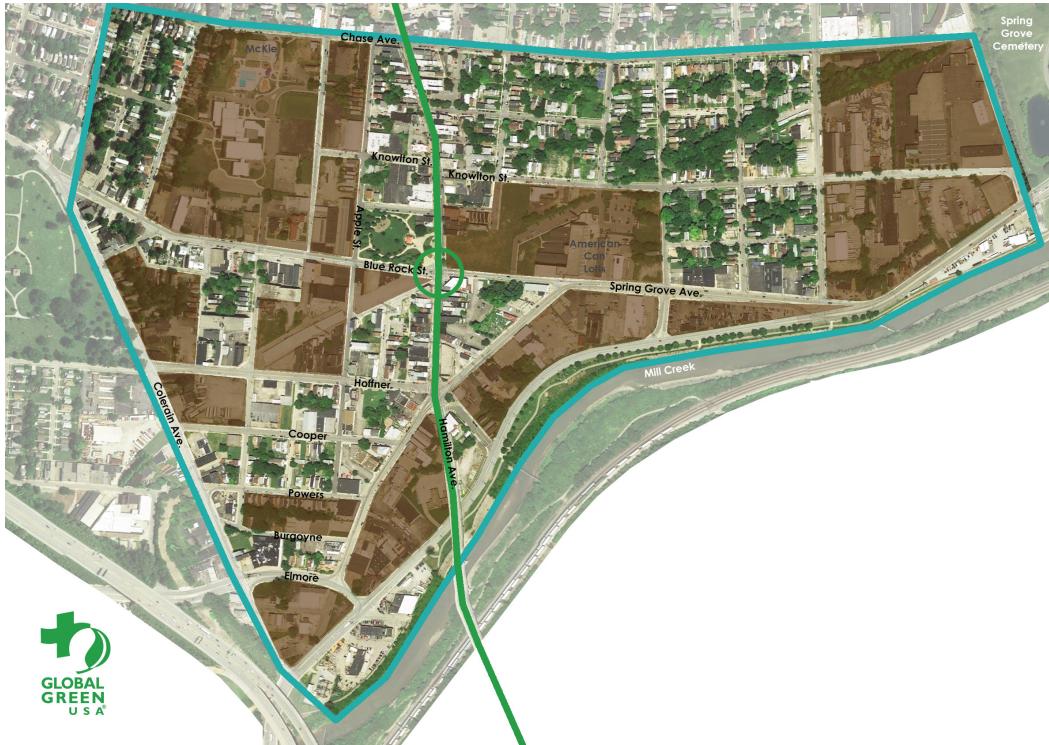
To increase bicycle ridership 75% of residential-only roads should be designed for a target speed of no more than 20 mph. 70% of non-residential or mixed-use roads should be designed for a target speed of no more than 25 mph. Bicycle networks through the neighborhood should be planned so that at least 50% of dwelling units and nonresidential buildings are located within 1/4 mile cycling distance of an existing bicycle network that extends at least 3 contiguous miles and connects to 10 diverse uses, a school or employment center, or a bus rapid transit or light rail station.

Each non-residential building and multi-unit residential building should provide short-term bicycle storage for at least 2.5% of peak visitors, but no less than 4 storage spaces per building.

To promote high levels of street connectivity, LEED-ND requires that there at least be 140 intersections per square mile, and preferably 300-401 intersections per square mile. Our study area in Northside has 254 intersections per square mile (89 intersections, including alleys, in .35 square miles). While Northside meets the prerequisite, in order to meet the credit threshold, at least 16-52 more intersections would need to be added. Any part of the circulation network counted toward the connectivity requirement must be available for general public use and not gated.

To facilitate physical activity and social networking, 90% of dwelling units should be located within 1/4 mile walk distance of at least one civic and passive use space, and 1/2 mile walk distance of a publicly accessible outdoor recreation space at least 1 acre in area, or a publicly accessible indoor recreation facility of at least 25,000 square feet.

To increase the proportion of areas that are accessible by a wide spectrum of people, regardless of age or ability, LEED-ND gives credit for designing a minimum of 20% of new dwelling units in accordance with ICC A117.1, Type C, Visitable Unit, wherein each unit must have a kitchen, living area, bedroom, and full bath on an accessible level. In existing areas, when retrofitting exiting public rights-of-way or publicly accessible travel routes, design, construct, or retrofit 90% of the rights-of-way and travel routes in accordance with the ADA-ABA accessibility guidelines.



This diagram shows suggested additional connections were the parcels in the large blocks to be redeveloped.

## Improve Neighborhood Connections (continued)

### Action Items

1. **Make parks and open space more accessible:** Improve relationship with park board in order to increase maintenance. Provide bike racks at entrances to parks. Create pedestrian and bicycle links in the neighborhood to Mill Creek and the hills to the west and east.
2. **Continue Bike Lane from the Viaduct through neighborhood:** Create a dedicated bike lane on Langland or Apple St.
3. **Create better crossings across Hamilton:** Combine stop signs with crosswalks. Explore adding additional signalized intersections. Place bike racks at key destinations along Hamilton.
4. **Explore ways that the City can better support Walkability:** Opportunities include better lighting in the industrial district, and reliable snow removal as accessibility ped/bike strategy. Though residents are required to maintain the city-owned sidewalks, the city could expand the selection of city-approved contractors in order to increase competition and potentially lower costs of repair.
5. **Divide large blocks when redeveloped:** Require connections through large lots when redevelopment takes place, either with streets or pedestrian pathways.

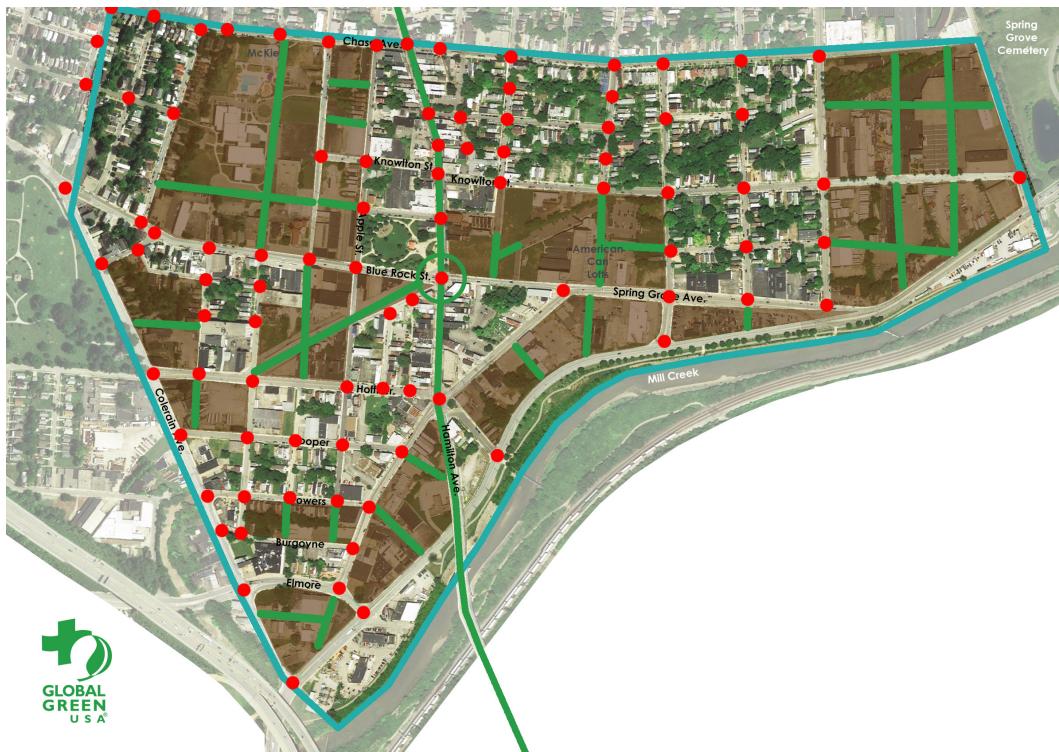


Diagram  
showing existing  
intersections  
in the  
neighborhood

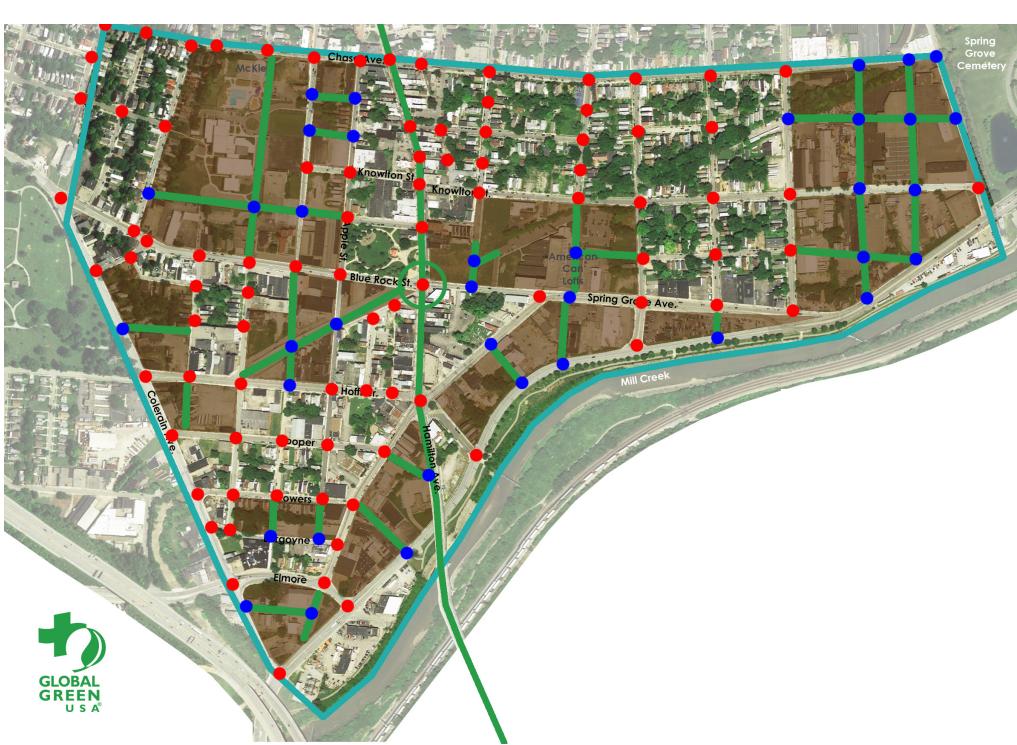


Diagram showing  
how additional  
intersections  
could increase  
connectivity  
throughout the  
neighborhood

# Recommendation 4

## Transform Knowlton's Corner into a Welcoming Gateway

At Knowlton's Corner, a 5-way intersection that serves as the gateway to Northside, create a safe and welcoming environment for pedestrians, cyclists, wheelchairs, and cars entering the neighborhood.

LEED-ND provides numerous credits related to walkable streets, including:

Provide trees at intervals of no more than 50 feet along at least 60% of the total block length and/or provide shade from trees or permanent structures over at least 40% of the total length of sidewalks. Select tree species that are not considered invasive in the neighborhood context.

To provide safe, appealing, and comfortable street environments, at least 80% of building facades should be no more than 25 feet from the property line.

The building-height-to-street-centerline ratio should be at least 1:1.5, at least 1 foot of building height for every 1.5 feet of width from the center of the street, for any new construction.

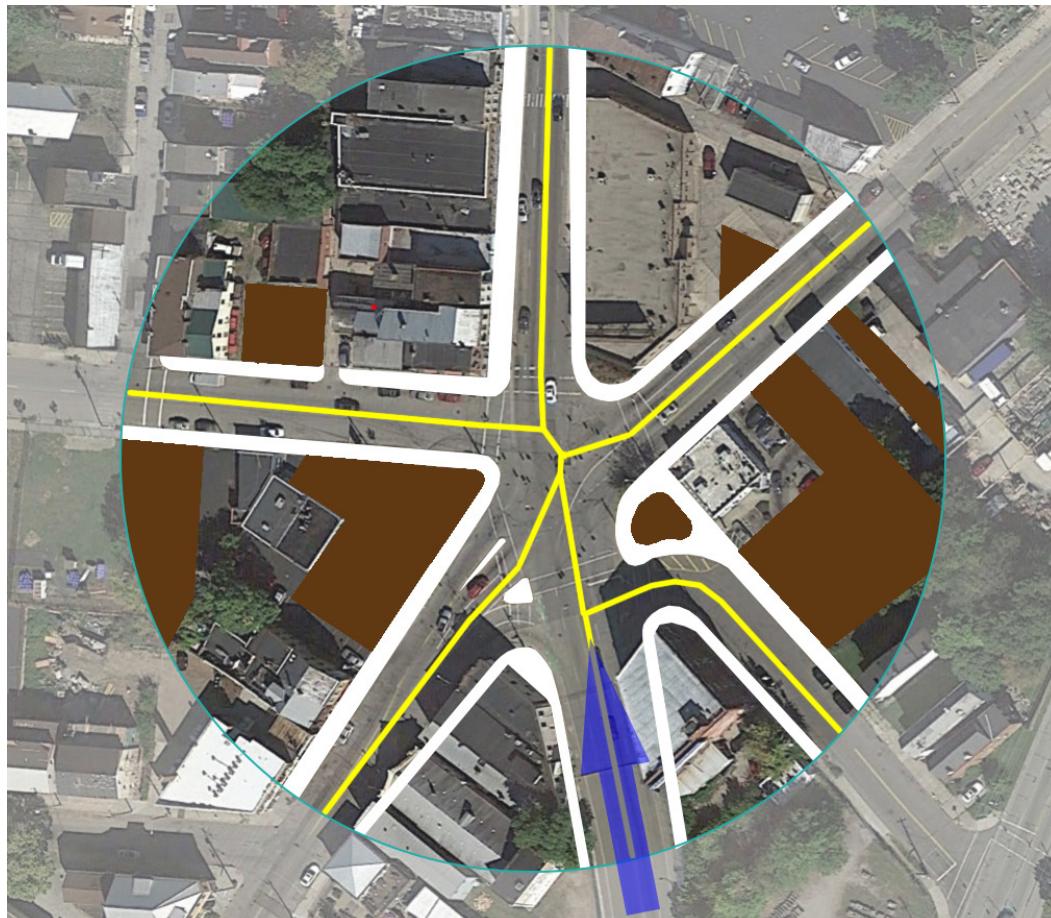
All ground-level retail, service, and trade uses, that face a public space should have clear glass on at least 60% of their facades between 3 and 8 feet above grade. If a facade extends along a sidewalk, no more than 40% of its length or 50 feet (whichever is less) should be blank (without doors or windows).



An appropriately-scaled development in the BP Gas Station, a few street trees and pedestrian-scale streetlamps would significantly change the streetscape in the Gateway to Northside.

## Action Items

1. **Collaborate with DAAP/Urban Design Studio:** to re-imagine how Northside's gateway could slow traffic and signal to people that they're entering a culturally rich and diverse neighborhood. This should include improved crosswalks, street trees, and highly visible gateway treatment.
2. **Redesign the Knowlton's Corner:** to reduce traffic speeds, potentially with a roundabout. Explore the feasibility of a roundabout or other significant redesign of the intersection.



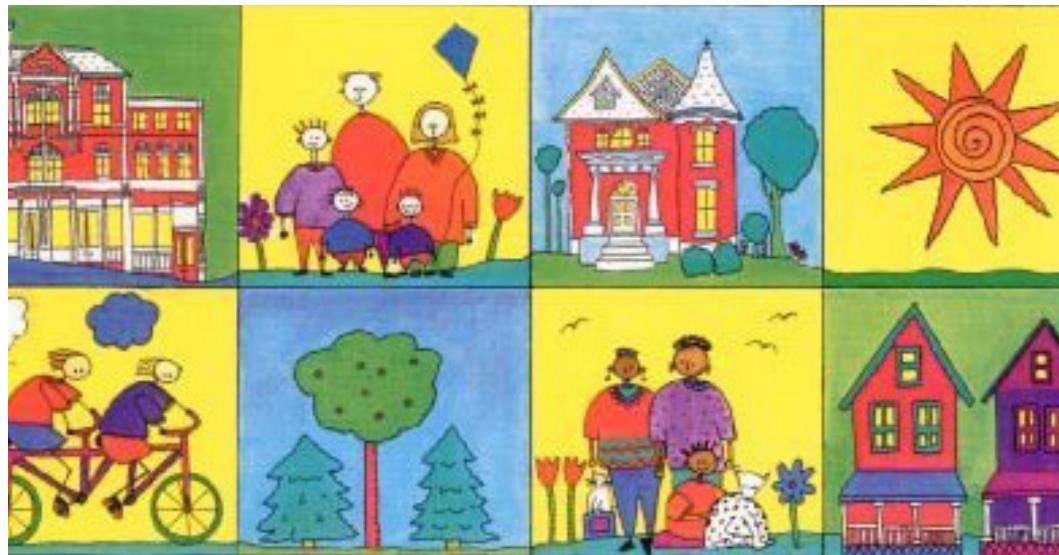
# Recommendation 5

## Strengthen the Structure and Diversity of Community Member Engagement

Northside has a high level of involvement by members of the community that exhibit a high level of loyalty to the neighborhood. This group is willing and able to take initiative and explore new approaches, such as the worker-owned co-op model for the Apple Street Grocery Store. However, there are also long-term neighborhood residents that have not been as active in the recent efforts to improve the conditions in the Northside. Those that are currently active should increase efforts to reach-out and engage with the full range of neighborhood residents to ensure that Northside continues to reflect the diversity and eclecticism of the neighborhood.

LEED-ND encourages community outreach and involvement by giving credits to neighborhoods that advertise and host at least one open community meeting or charrette other than an official public hearing or recurring citizen advisory meeting and work directly with community associations and local government to advertise the meetings.

The Northside Community Council has been effective at creating cohesion in the neighborhood and embracing the eclecticism of the community through events such as the 4th of July parade. Attention should be given to cultivating new members and leaders so this organization remains strong through future years. Intention should be given to address issues of inclusion, equity, and diversity.



Iconic Northside mural

## Action Items

1. **Create an Outreach Group:** Identify the missing voices in community conversations and elect promoters for the outreach group that represent them or are actively engaged with them. This could even be an existing leader, such as someone from a place of worship.
2. **Host more diverse community meetings:** Step outside the box of typical neighborhood council meetings and use new locations with different hosts and activities, and diversify and expand the advertising strategies. As always, continue consideration of less able-bodied participants as well as parents with children.
3. **Diversify initiative leaders:** Make it a priority to include a more diverse set of voices from the top-down in the Neighborhood Council by valuing diversity in leadership appointments.
4. **EcoDistrict:** Consider the EcoDistricts Protocol as a model for formalizing engagement and collaboration.



Vendor at  
the Northside  
Farmers Market,  
which accepts  
EBT  
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Things Journal

# Sustainability Assessment

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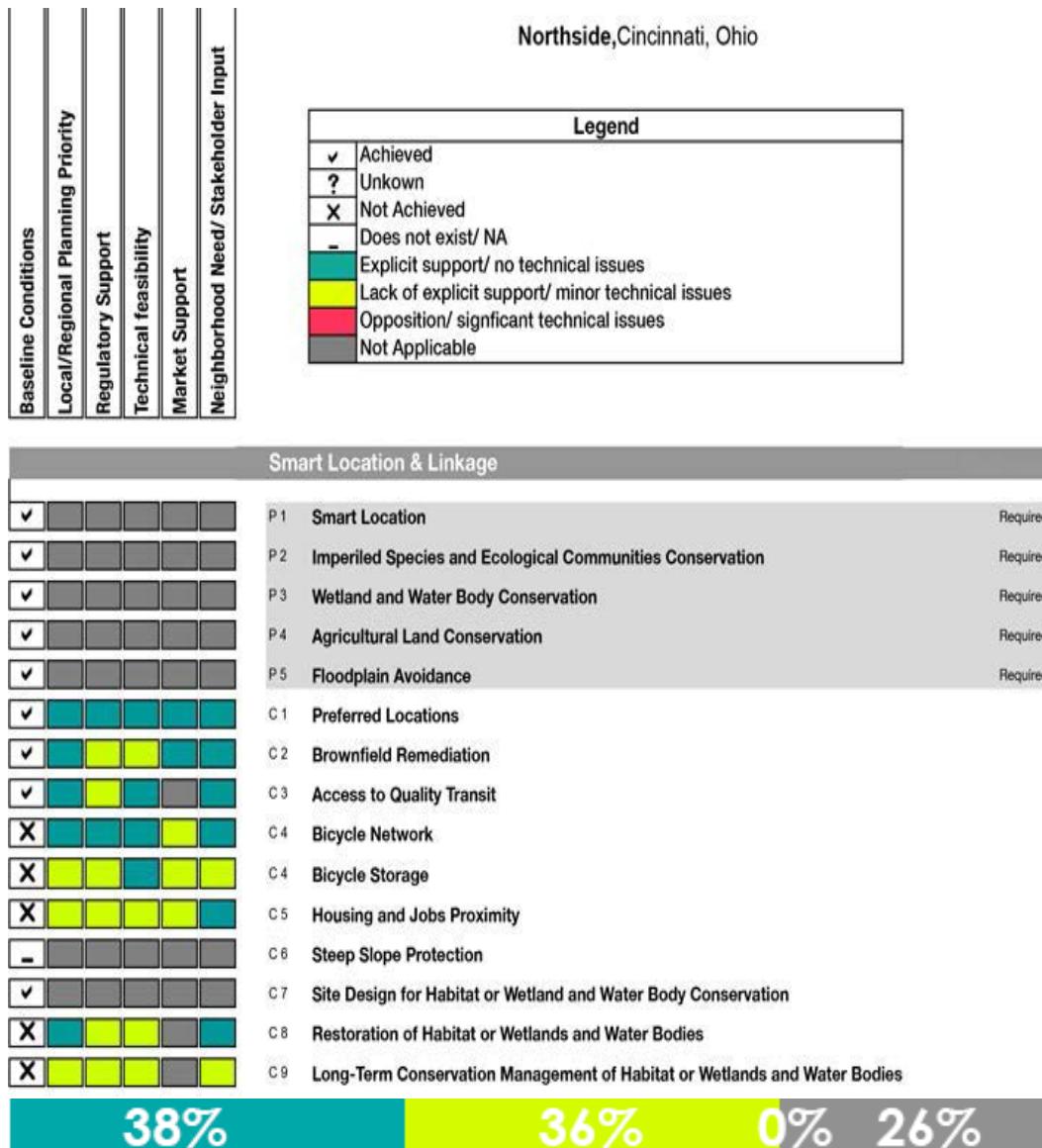
The Sustainable Neighborhood Assessment tool includes an annotated LEED-ND checklist created by Global Green. It is a key component of the process used to document and compare the assessment area against the LEED-ND prerequisites and credits. Each credit within the three credit categories (Smart Location & 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 after site visits, stakeholder meetings, and conversations with city staff. This information was then translated into an overall assessment of sustainable neighborhood performance.

Based on the in-field assessment, planning document review, various stakeholder meetings, 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 identifies the overall level of sustainable neighborhood performance for Northside. Many credits fall into the "Likely" category, and of the remaining credits, a significant percentage fall within the "Possible with Effort" category, which shows the large potential for improving the sustainability of the neighborhood, 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 "Achievable" below. The recommendations listed in the previous pages are largely a response to LEED-ND criteria which achieving was identified as "Possible with Effort" by the assessment team. 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 neighborhood's level of possible certification. It should also be noted that all the prerequisites must be achieved if certification will be pursued. While recognizing these constraints, the categories generated through the assessment serve as a useful metric for estimating formal LEED-ND certification. Given the presumption that all those designated as "Achievable" would be met, providing a baseline point tally of 46, and those listed as "Possible with Effort", are aggressively pursued and achieved, affording an additional 41 points, the analysis shows that the Northside Neighborhood could possibly earn a rating of platinum from the USGBC.

	Total	Achievable with Current Conditions	Possible with Effort
Smart Location And Linkage	27	10	10
Neighborhood Pattern and Design	44	23	17
Green Building and Infrastructure	29	13	14
	<b>100</b>	<b>46</b>	<b>41</b>
LEED-ND Certification Thresholds:	Certified: 40-49	Silver: 50-59	Gold: 60-79
			Platinum: 80+

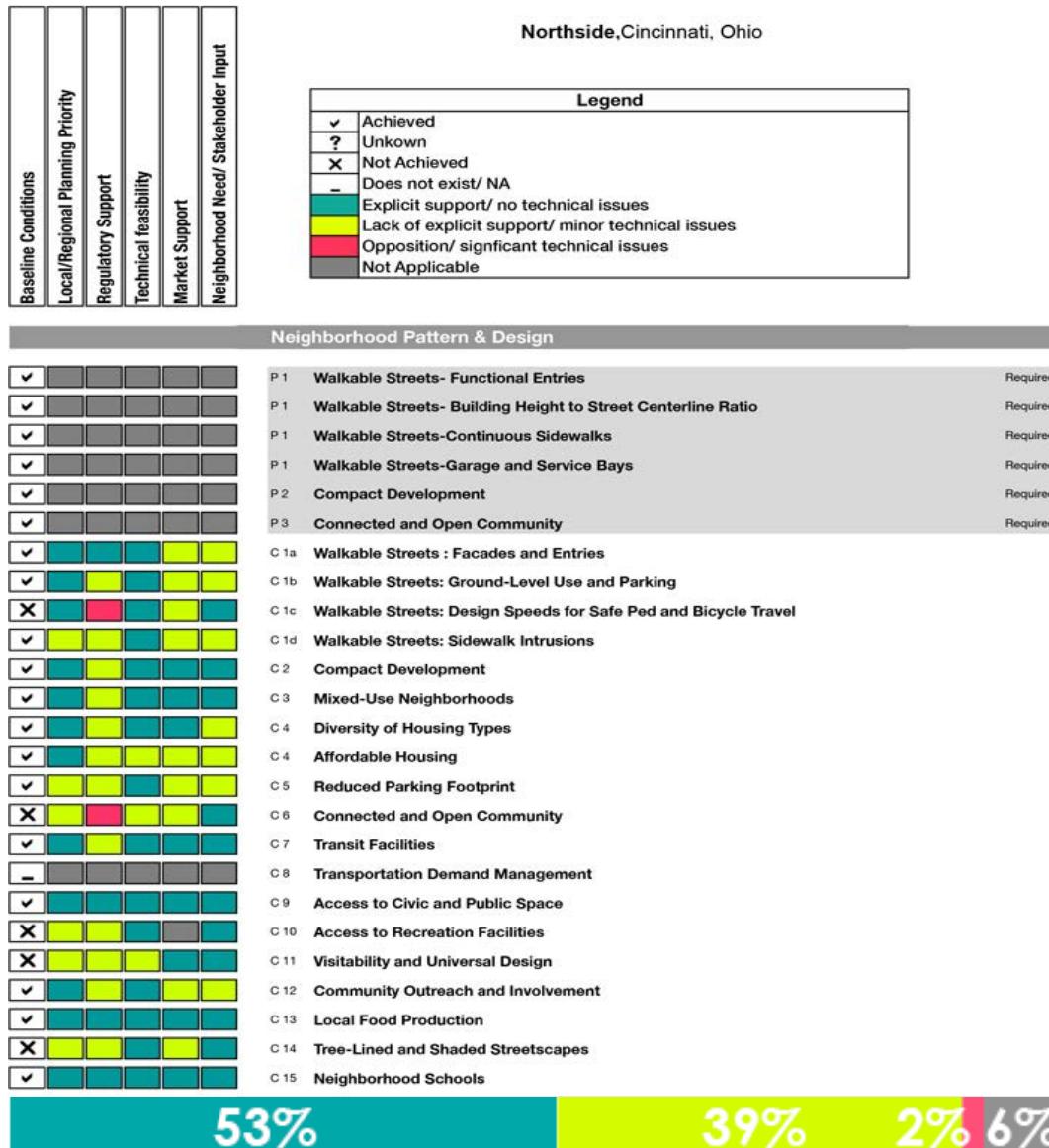
# Sustainability Assessment



## Smart Location and Linkage

Smart Location and Linkage focuses primarily on existing site conditions to ensure that developments are not located in floodplains, on steep slopes or cause damage to ecological communities or local water bodies. Because nearly all of the Northside neighborhood is previously developed and the City has existing programs in place to address water quality in the Mill Creek, many of the goals of this credit category are met with existing conditions. One challenge highlighted, however, is the difficulty of integrating bicycle facilities that connect to a larger network.

# Sustainability Assessment



## Neighborhood Pattern and Design

Neighborhood Pattern and Design aims to influence the physical layout and design of the community to yield walkable neighborhoods with a variety of land use types. An analysis of the Northside neighborhood reveals an underlying neighborhood structure which lends itself to walkability, but with many opportunities for improvement. Hamilton Ave and Knowlton's corner require the most careful attention- many of the core tenets of walkable urbanism are within reach if careful effort is made to prioritize building and streetscape improvements that prioritize pedestrian and cyclist safety.

# Sustainability Assessment



## Green Infrastructure and Buildings

Green Infrastructure and Buildings seeks to optimize individual buildings and surrounding infrastructure systems to reduce their energy and water consumption and associated emissions. Particular attention should be given to optimizing water and energy efficiency strategies for all new buildings and streetscape improvements in the neighborhood. Of particular concern is the realization of energy efficiency given the challenges posed by historic buildings.

# Appendix

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## A. LEED for Neighborhood Development Credit Categories

### Smart Location and Linkage [SLL]:

SLL focuses on preserving the environmental characteristics inherent to the site such as water body and steep slope protection and influencing development patterns to reduce sprawl and automobile dependence. Credits in this category encourage locating new developments near city centers with robust public transportation options and sites that have been previously developed or are immediately adjacent to existing development.

### Neighborhood Pattern and Design [NPD]:

NPD influences the physical layout and design of the community in question through minimum thresholds for density, internal and external connectivity, and characteristics of a walkable community such as continuous sidewalks or building frontages that face public streets. Credits in this category reward projects that have nearby civic, educational and recreational facilities, limited surface parking and have transportation facilities complete with maps and bicycle racks.

### Green Infrastructure and Buildings [GIB]:

GIB emphasizes the importance of the optimized performance of structural systems and city infrastructure through minimum building energy and water efficiency, water-efficient landscaping and on-site renewable energy production. Credits in this category promote the adaptive reuse of existing buildings, on-site stormwater management, recycled content in infrastructure such as roadbeds and energy efficient traffic lights, street lights and water pumps.

For more information, please visit [www.usgbc.org](http://www.usgbc.org)

# Global Green USA

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