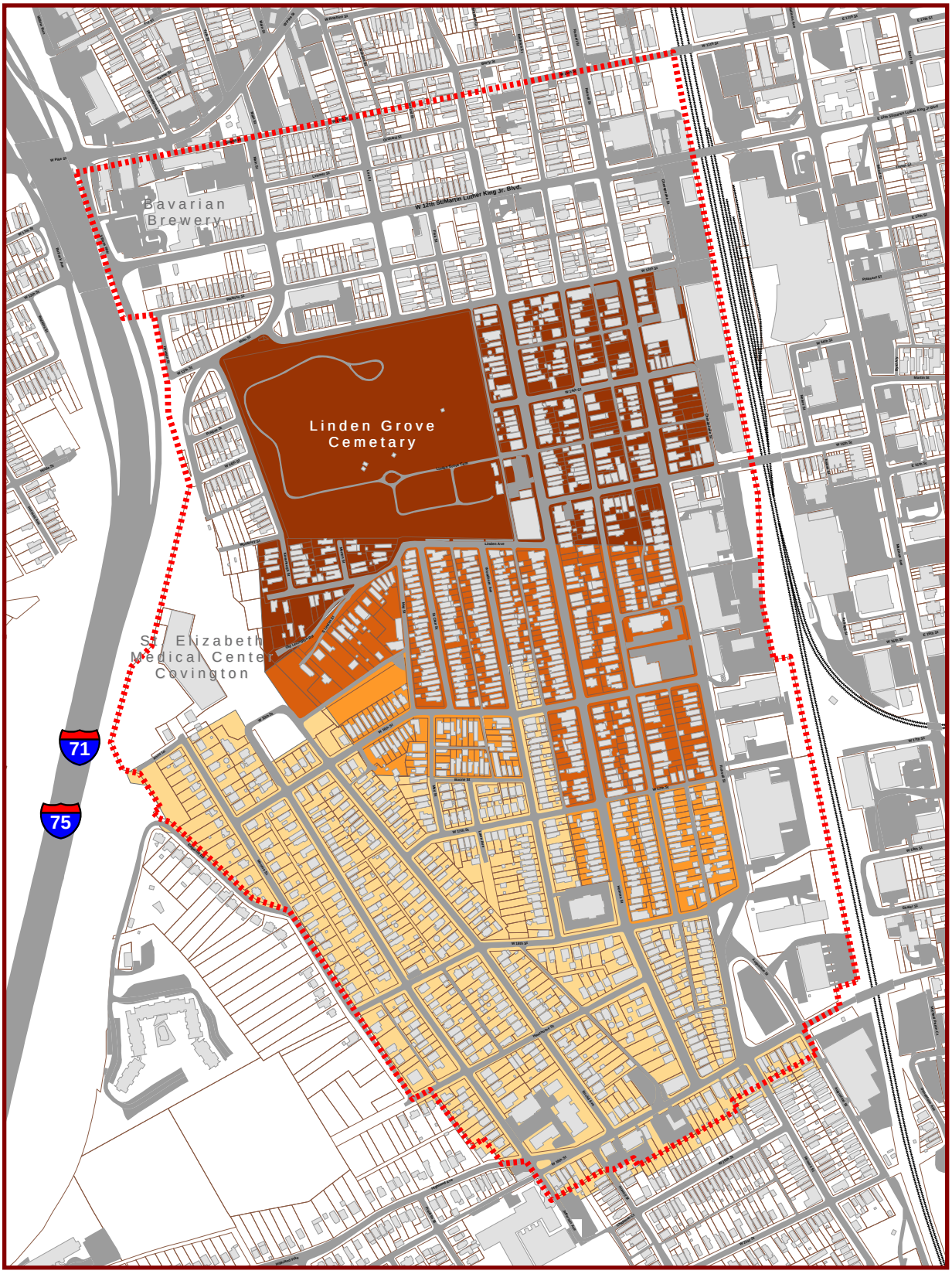
# Map 3.1 - Historic Preservation




## Linden Gateway Small Area Study

City of Covington
NKAPC

Study Area

**Historic Development District Era**

- Mid to Late 19th
- Late 19th
- Late 19th / Early 20th
- Early to Mid 20th

0 250 500 1,000 Feet

A significant part of moving communities forward in Kenton County is to include a discussion of environmental impacts within small area studies. One method for broaching this conversation is to discuss environmental issues in terms of green infrastructure. The *Comprehensive Plan Update 2006-2026* for Kenton County defines green infrastructure as "a network of vegetated or non-paved area(s) that sustains the diversity and quality of natural systems and that contribute to the health, economic vitality, and quality of life for communities and people." The plan goes on to state that, "A primary component therefore, is to connect across multiple landscapes a network of protected land and water that supports native species, provides recreational and open space uses, and maintains the natural ecological processes."

## GREEN INFRASTRUCTURE CONCEPT

Creating a green infrastructure concept plan helps address the current problems and promote the use of existing and planned assets. As mentioned above, green infrastructure includes an interconnected system of vegetated or non-paved areas. These areas provide natural habitat for wildlife, stormwater infiltration, replenishment of the groundwater, and tree canopy. The green infrastructure concept for the study area is to identify potential linkages using parks, tree canopy, street improvements and pedestrian connections. Then use existing community assets and planned green infrastructure improvements to enhance the natural environment of the area.

Linden Grove Cemetery is a major existing green infrastructure element within the study area and provides the foundation for new green infrastructure recommendations. Three basic sections within the study area were identified around Linden Grove Cemetery; a north, east, and south section to address the green infrastructure concept as seen in Map 4.1. The distinction of these three sections emerged from conversation and discussion with various community members and attendees at the first public meeting as well as focus group and individual interviews. The intent is to provide recreation/green space areas in each section and connect them through a series of greenways and/or green infrastructure elements.

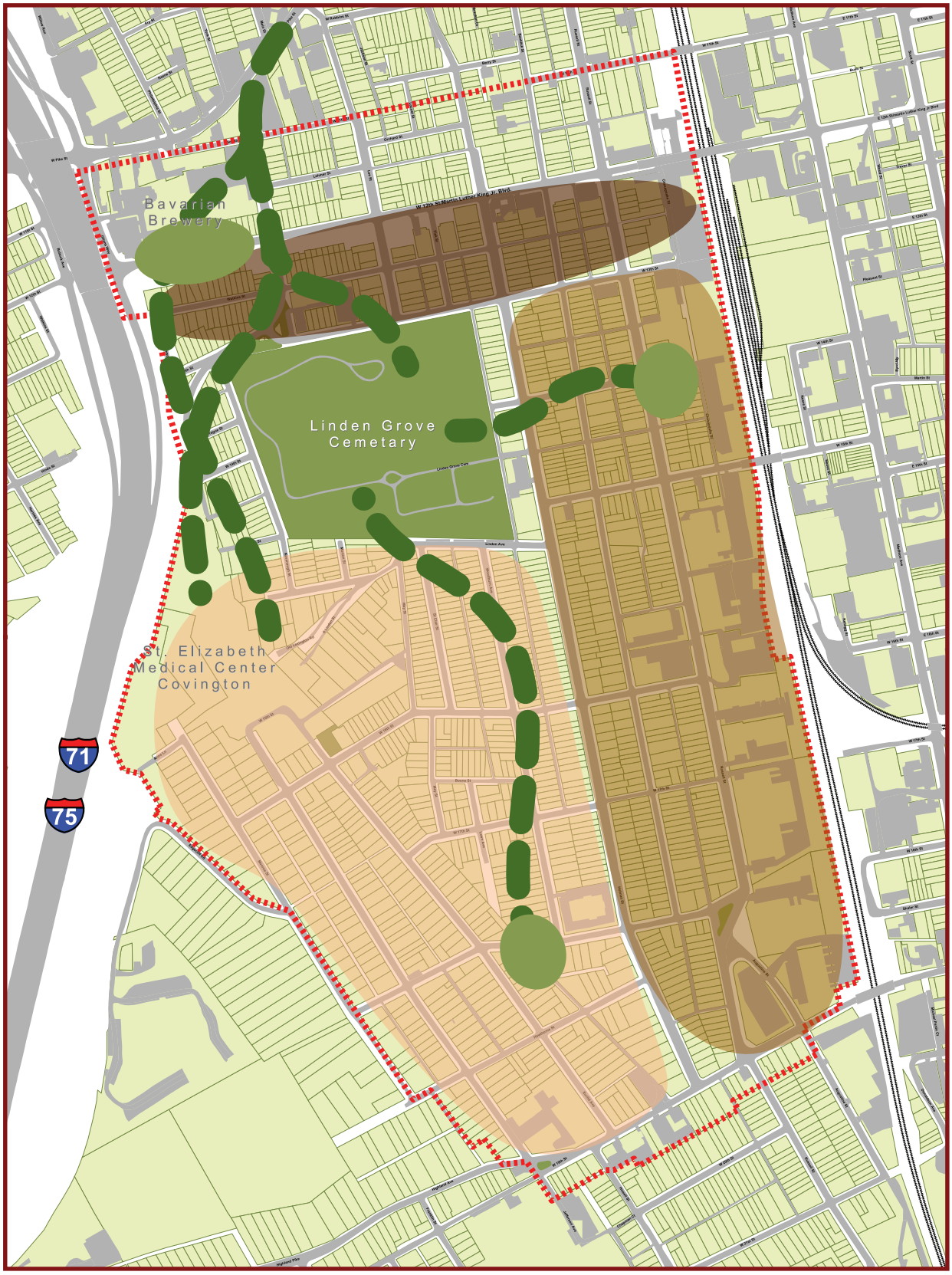
## LANDSCAPE ANALYSIS

The Linden Gateway study area was examined using the green infrastructure concept as a lens through which to view the community and its physical components. The strategy to begin this examination included a landscape analysis as well as the identification of neighborhood assets, ongoing efforts and community needs. This analysis looks at different element of the landscape including the topography of the area to determine high and low points; tree canopy and impervious surfaces; and parks and recreation.

### Topography

The terrain of an area influences where and how development occurs but more importantly, the landscape of an area determines where and how water flows. Topographic information on map 4.2, has been analyzed to illustrate significant drainage areas within the community.

# Map 4.1 - Green Infrastructure Concept



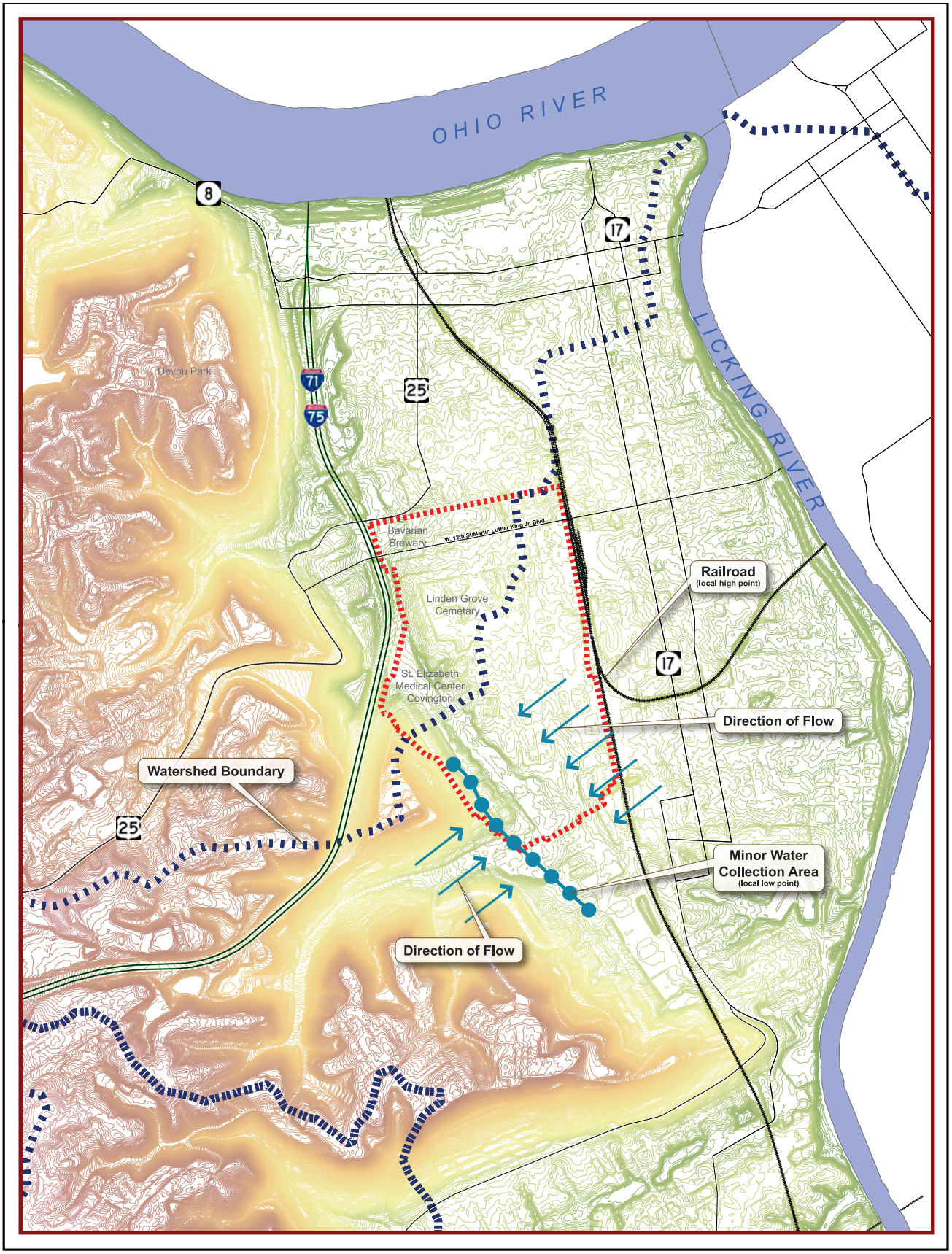

## Linden Gateway Small Area Study

City of Covington
NKAPC

Study Area
Park / Open Space
Recommended Greenway
North Section
East Section
South Section

0 250 500 1,000 Feet

# Map 4.2 - Landscape Analysis




# Linden Gateway Small Area Study

City of Covington
NKAPC

Study Area
Watershed Boundary
Minor Water Collection Area
Direction of Flow
Elevation
964'
444'
N
W
E
S

0 750 1,500 3,000 Feet

Map 4.2 illustrates that the study area is divided into two different watershed areas. This means that water on the north side of the dashed watershed boundary drains directly into the Ohio River and water on the south-east side of the watershed boundary drains into the Licking River. As part of this analysis, it is important to recognize the location of local high and low points within a watershed. As illustrated on the map, water can collect in some of these low lying areas. Depending on how these areas are treated, they can potentially be problematic for adjacent property owners due to localized flooding.

**Storm Water**

Map 4.2 indicates that the localized water collection area lies within the vicinity of 18th Street and Euclid Avenue. Area residents have indicated issues relating to drainage and flooding in this area. Drainage issues may relate to hillside slippage, icy road conditions, and residential flooding. It can also accelerate weathering of paved surfaces due to prolonged collection of water.

Sanitation District No.1 has also made it known that storm water runoff issues are a significant problem for the low lying area of north Covington due to the overabundance of impervious surfaces and combined sanitary/storm water system. The study area drains into the combined sewer system located below the Brent Spence Bridge which has the largest combined sewer overflow problem in the area. During large rain events the system can not handle the stormwater that flows into it thereby draining the excess into the Ohio River. Sanitation District No.1 is now in the process of taking various measures to help reduce the impact of storm water runoff by encouraging green infrastructure practices. Strengthening the green infrastructure system and utilizing best management practices that can help mitigate the problems discussed above.

*St. Elizabeth Medical Center Covington:* Green roofs designed to reduce and slow the rate of stormwater runoff by using vegetation are being considered for the new facility. Rain gardens, specially designed to absorb rainwater are also being considered. These two elements will help reduce the amount of storm water entering the sewage system.

**Tree canopy and Impervious Surfaces**

Impervious surfaces and tree canopy are two important measurements for evaluating green infrastructure. Within the study area impervious surfaces cover 42 percent of the area. The occurrence of floods during rain events greatly increases with the increase in impervious surfaces (See Interim Report: Map 3 – Impervious surfaces and tree canopy).

***Tree Canopy:***
The tree canopy in the study area is approximately 20 percent, which means that approximately 20 percent of the land area is covered or shaded by trees (See Interim Report: Map 3 – Impervious surfaces and tree canopy). This is below the recommended 25 percent for urban residential neighborhoods by American Forests. In addition to helping manage storm water trees provide vital benefits to communities and improve the quality of life. Trees:

- Conserve water and reduce soil erosion by reducing surface runoff, reducing soil erosion, increase groundwater recharge, reduce wind erosion of soil
- Reduce air pollution and fight the atmospheric greenhouse effect by absorbing carbon, and other air pollutants, and releasing oxygen
- Save energy by providing shade in the summer and wind breaks during the winter
- Increase economic stability by attracting businesses and tourists, increasing rents for apartments and offices
- Reduce noise pollution by absorbing and blocking noise
- Increase property value by adding 15 percent of value onto property
- Create wildlife and plant diversity by creating

mini-climates for plants and wildlife that would otherwise not be able to survive
- Trees also provide beauty to the urban fabric that increases residents, pride in their community

To increase the amount of canopy cover in the neighborhood a tree planting program should be initiated. This can be a combined effort between the residents, the neighborhood associations, local businesses and the city. Residents and local businesses can plant trees in their yard, and the neighborhood associations along with the city can identify areas where trees can be planted. To provide more room for trees curb extensions at street intersections should be considered.

Information on more than 400 trees that grow in this area, the size they reach, soil requirements, their shape, and wildlife value can be found at the Northern Kentucky Urban and Community Forestry Council website www.nkyurbanforestry.org. The Arbor Day website www.arborday.org also has information on tree type, planting, care, and proper pruning of trees.

***Impervious Surfaces:***
The amount of impervious surface area, that does not allow storm water to infiltrate, is another primary measure in assessing the green infrastructure in an urban area. The more impervious surface an area contains the more stormwater is diverted into storm sewers and natural drainage ways. During heavy rains the storm sewers are overwhelmed and the untreated sewage is diverted to flow directly into the Ohio River. Water also starts collecting in low lying areas causing road hazarders, and flooding basements. Impervious surfaces are the primary reason for the increase in flood activity in this area.

Within the study area there are 91 acres (42 percent) of impervious surfaces. There are several ways to reduce the amount of impervious material and improve permeability of the exiting open land.

- Redirect roof drains from emptying into the sewer system by diverting into rain barrels, cisterns or to flow out onto the yard
- Use pervious surfaces for sidewalks, parking lots and lanes, driveways and patios
- Build rain gardens that allow water to infiltrate into the ground more quickly
- Remove concrete from the planting strip between the sidewalk and street curb
- Extend curbs out at the end of some streets to enlarge the area of pervious surfaces

*Landscaped Curb Extension*
*Source: http://commons.wikimedia.org*

## PARKS, RECREATION AND GREEN SPACE

The need for neighborhood parks has been voiced by several attendees at the first public meeting, task force members, local professionals and social service providers, as well as being identified through an analysis of the area. With the exception of one mini park, the Linden Grove Cemetery and Glenn O. Swing Elementary appear to be the only public open spaces within the community.

### Parks Standards

Parks provide a substantial amount of green space in urban areas. Using the standards described in the *2001 Kenton County Comprehensive Plan,* below is a summary of the park standards and inventory for the study area.

*Mini-Parks*: A mini-park is approximately 1 acre in size and services an area 1/8 to 1/2 mile in radius. Mini-parks typically include amenities such as playgrounds, small multi-use areas, and benches. While mini parks are most often provided in association with school facilities, they should also be provided as needed in high density neighborhoods where children do not have adequate yard space. Typically, a mini-park serves 1,000 people for every 1/2 acre.

*Neighborhood Parks*: These parks are usually 5 to 15 acres in size and serve a radius of 1/2-mile to 1 mile. Common facilities include field games, playground equipment, small pools, small neighborhood center, drinking fountains, and restrooms. Typically, a neighborhood park serves 5,000 people for every 2 acres.

The population of the Linden Gateway Study Area is approximately 3,250. Per the standards, the area should be served by at least 1.6 acres of mini parks. Currently the area includes only one mini park that is 0.055 acres. Almost all of the population of the Linden Gateway Study Area is within a half mile of two elementary school recreational facilities that act as neighborhood parks. While residents are adequately served by recreation facilities at the two elementary schools at the north and the south ends of the study area, the study area is underserved in terms of mini parks.

**Existing Facilities**

Every neighborhood has its own characteristics and various amenities that contribute significantly to the local character. Examples of these amenities may include parks, pedestrian and vehicular routes, schools, churches, and other locally provided service facilities. These types of amenities are important to a community because their physical presence facilitates opportunities for social interaction; this is where the fabric of a community is often woven together. Residents attending the first public meeting, held in October 2007 indicated that the following were significant assets (see Figure 1).

- The Glenn O. Swing Elementary School fields (approximately 7 acres), provides a 1/2-mile radius of service to the southern half of the study area. This facility includes basketball courts and a baseball field.
- The John G. Carlisle Elementary school fields (just over 4.5 acres), serves the northern half of the study area and is also designated as a neighborhood park by the *2001 Kenton County Comprehensive Plan*. This facility includes a baseball field, basketball courts, and a playground. Both of these facilities, Glenn O. Swing and John G. Carlisle Schools are located outside the study area and provide active recreation space for the surrounding community and serve a much larger population than the study area itself.
- The Linden Grove Cemetery, located centrally within the study area, is approximately 20 acres of green space that is jointly maintained by the city and county. The Friends of Linden Grove Cemetery have developed plans to improve the cemetery with walking trails, water fountains, restoring the lake, providing pedestrian access on the cemetery's west side, and moving the main access into the cemetery from an alley off of Holman Street to 13th Street. With these improvements Linden Grove Cemetery will provide the community with a convenient place to walk and enjoy green space. When the planned improvements to the cemetery are implemented, it has the potential to function as the core of a greenway system. This study supports the continued efforts of the Friends of Linden Grove to improve the cemetery and transform it into a community asset that can be used by area residents.
- The Lance Corp. Justin Sims Memorial Park is just south and adjacent to the St. Elizabeth Medical Center Covington site. This 0.055-acre piece of land has a playground set.swings and a picnic table.
- The Southside Baptist Church has a children's play lot on Holman Avenue; however, this play

lot is fenced in and unavailable to the general public. For this reason, this park is not included in the calculation of existing mini-park area.

- In addition to park facilities, there are two city owned and maintained traffic islands located at 19th and Jefferson Streets and 18th and Russell Streets that serve as green spaces for the community. The flowers/shrubs within these islands are maitained by the Friends of Peaselburg Neighborhood Association.

*Figure 1: 1/2 mile radii for local schools.*

- An interpretive park along the south side of 12th St./Martin Luther King Jr. Blvd. in the 500 block will be constructed as part of the road improvement project. This park is proposed to have markers that will describe the story of demolished structures that were located along the south side of the street. This park also provides the opportunity for rain gardens and capturing some of the rain water from the street and allowing it to infiltrate the earth instead of flowing into the sewage system. The City of Covington in collaboration with the Sanitation District No. 1 and the State Historic Preservation Office is considering the option of using this area for an innovative stormwater park that could also interpret the history of 12th St./Martin Luther King Jr. Blvd.

*Traffic island at the corner of 19th and Jefferson Streets*

## POTENTIAL PARKS/ KEY OPPORTUNITY AREAS

A review of the vacant lots within the study area found six underutilized pieces of land that stood out as key opportunity sites. These sites were viewed as key opportunity areas based on the idea of community collaboration. Collaboration between the city, neighborhood associations, and citizens to create new recreation spaces within the study area will alleviate some of pressure placed on the city to create and maintain these parcels. These six sites are divided into first and second priority areas based on feasibility and need.

The properties listed as "first priority" are those which appear to be the most feasible and in key locations to effectively add mini park space to the study area. The "second priority" properties are those which would add to the quality/quantity of mini park space in the study area but partnerships may be difficult to form based on private ownership and/or surrounding development.

## First Priority

Currently the study area is under served by mini-parks by more than an acre. If all of the "First Priority" opportunity sites become parkland the study area will still be under served. The total acreage of all "First Priority" opportunity areas is 0.65 acres. Mini-parks would total 0.71 acres and therefore, still not attain the 1.6 acres suggested by the local comprehensive plan. However, strategically placing facilities throughout the study area, as well as tying them all together to essentially make them more useful, may adequately service the population of the study area. Given the dense urban nature of the area, it is not expected to reach the standards for mini-parks easily.

### Area1

***The 600 block of West 18th Street***

The site located on West 18th Street consists of three city-owned parcels totaling 0.27 acres. The low lying nature of this site presents the opportunity to address storm water runoff issues in a collaborative effort with Sanitation District No.1. This may be an ideal location for a community garden in collaboration with the residents of Academy Flats located nearby.

A community garden is essentially an open piece of land which is gardened, supported and cared for by members of the community. A group of residents, like those at Academy Flats, are generally a supporting group for an activity such as this.

*600 block of West 18th Street*

### Area 2

***Children's play lot at 1518 Holman***

The Southside Baptist Church owns and operates a children's playground at 1518 Holman Avenue. It is approximately 0.17 acres (1/6th acre). This playground is fenced in and is used as a daycare facility and for activities organized by the Southside Baptist Church. Working with the church to open this playground to the public could provide a great asset to the surrounding neighborhood. One potential issue with this site is the lack of parking. Working in collaboration with the city, a few on-street parking spaces could be reserved for the play lot. Dedicating those few spaces directly in front of the playground may provide enough parking to support the site.

*Children's play lot at 1518 Holman*

### Area 3

***Corner of West 14th Street and Banklick Street***

The Southside Baptist Church owns the lot at the corner of West 14th Street and Banklick Street. This location is categorized as first priority only in the event that the negotiations with Southside Baptist Church, to open their current play lot fail. This lot is in a prime location to service the northern portion of the study area with a mini-park. This lot is currently maintained by the Southside Baptist Church but future maintenance could be provided through collaborative neighborhood efforts.

*Corner of West 14th Street and Banklick Street*

**Second Priority**

**Area 4**

***Corner of 15th Street and Russell Street***

The two lots on the southwest corner of 15th Street and Russell Street are highly visible when traveling through the Russell Street corridor as well as traveling along 15th Street. This 0.13 acre piece of land is in an area that could potentially support a gateway feature. Such a feature at this location would be highly visible when traveling south or west into the study area. Due to its visibility and accessibility this area could also have potential to serve as a farmers' market or other similar activity that would benefit from a visible location. A potential issue with this location is that one lot is owned by the city and the other is privately owned.

*Corner of 15th Street and Russell Street*

**Area 5**

***19th Street at Holman Avenue***

The vacant parcel located behind the corner market on Holman Avenue and 19th Street could be a good location for a mini-park to service the southeastern portion of the study area. This parcel is privately owned but if developed into a mini-park could provide the space for some much needed playground equipment in this area. The Glenn O. Swing Elementary fields are close by but lack playground equipment.

Parking for this site could be provided through collaboration with the owner of the neighboring corner market. A mini-park in a location like this could serve as a buffer from the emerging commercial activity to the south along 19th Street to the established residential uses to the north. This property is currently privately owned and maintained. One advantage of a park at this location may be the potential for maintenance through sponsorship of local businesses. Businesses like landscape architecture firms or nurseries may be particularly interested in maintaining a mini-park so close to commercial activity.

*19th Street at Holman Avenue*

## Area 6

***1323 Russell Street***

The vacant parcel of land located at 1323 Russell Street is currently owned and maintained by the City of Covington. This parcel of land is bound by buildings on both the north and south sides. The two closest structures south of the property are deteriorating. One is for sale and the other appears to be rental property. For this site to contain sufficient acreage to be a viable park the City of Covington will need to purchase both of these parcels, remove the structures and combine these to the lot they already own.

*1323 Russell Street*

**General Recommendations**

There are three sites that have been addressed as "general recommendations." Two of these properties play a vital role in providing mini-park space for the study area, and efforts are already underway for implementation. It is the recommendation of this study that these projects be completed.

## Area 7

***Interpretive Park along 12th St./Martin Luther King Jr. Blvd.***

Containing 1.3 acres this site is located just off the I-75 interchange along the south side of 12th St./ Martin Luther King Jr. Blvd. and is part of the mitigation requirements for the widening project. The park will help preserve the history of 12th St./Martin Luther King Jr. Blvd. that is impacted by the road widening project. Sanitation District No.1 has expressed an interest in working with the Kentucky Transportation Cabinet and Kentucky Heritage Council to add to this park features that will also make it a rainwater park to help manage storm water runoff from the area.

## Area 8

***Traffic islands on Main Street***

The islands created by the realignment of Main Street and 13th Street as it becomes the access road for the St. Elizabeth Medical Center Covington are viewed as primary sites for landscaped gateways. The City of Covington, St. Elizabeth Medical Center Covington, and the Linden Grove Cemetery Board all agree on this concept and should work together to implement this idea.

*Traffic islands on Main Street*

## Area 9

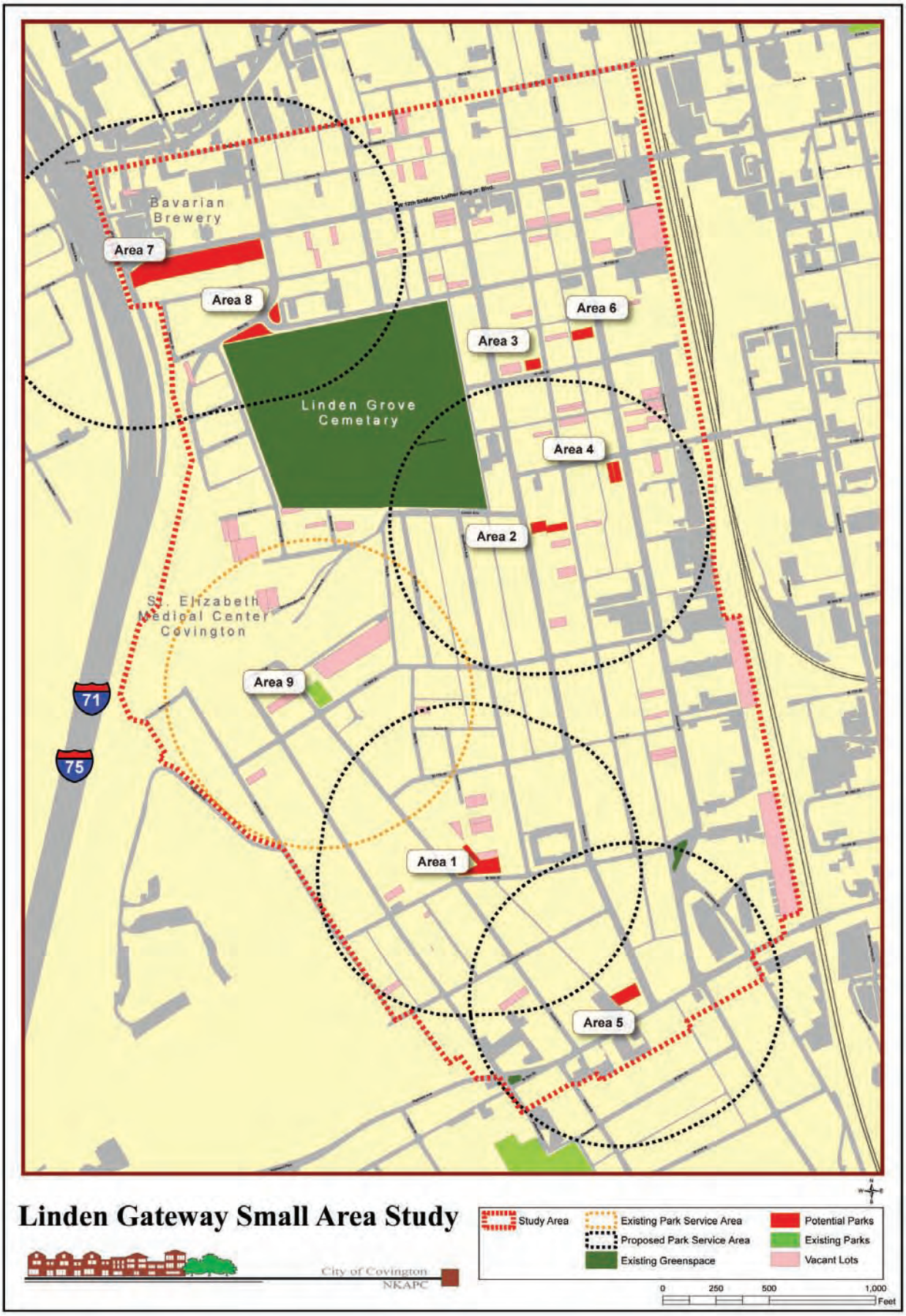
***Lance Corp. Justin Sims Memorial Park***

The third property is the Lance Corp. Justin Sims Memorial Park. Currently it is only utilizing a portion of the parcel of land it is located on. A small fence encloses the playground area from the rest of the parcel. There may be potential to expand this park.

*Lance Corp. Justin Sims Memorial Park*

Map 4.3 illustrates the service area of each of the recommended parks within the study area. If these parks were improved per the recommendations within this section, the residents of the area will be adequately served with recreation and green space opportunities.

## Map 4.3 - Proposed Parks and Recreation




*APC*

## GREENWAYS

In an urban setting, greenways typically include rights-of-way, parks and traffic islands that can be landscaped and linked together. Connectivity between these features will encourage their usage by area residents and improve the walkability of the area.

Chapter 2 discusses the creation of a green corridor along Main Street from Pike Street to the Linden Grove Cemetery. This greenway will consist primarily of trees planted along the street and will incorporate the traffic islands located at the intersection of 13th Street and Main Street. The traffic islands should be landscaped with vegetation and designed to function as a rain garden which has the ability to infiltrate stormwater. As discussed in Chapter 7 the proposed median along 12th St./ Martin Luther King Jr. Blvd. is wide enough to be landscaped with street trees and a rain garden. The median has the ability to function as an extension of the greenway system along 12th St./Martin Luther King Jr. Blvd.

This study recommends that a portion of the vacant land located at the corner of Watkins Street and Hewson Street and the Interstate 71/75 right-of-way be used to create a greenway that would link the interpretive park on the western end of 12th St./Martin Luther King Jr. Blvd. to St Elizabeth Medical Center Covington. This greenway could then be linked from the medical center to Linden Grove Cemetery through a pedestrian bridge that could be located at Monterey Street as shown in Figures 2 and 3. This corridor will connect two of the areas prime attractions, and give people living close by a more direct route to the medical center.

More greenways can be created by planting trees along the streets and connecting them to existing forested areas such as at the southwest corner of the study area. Since many of the planting strips along the streets are fairly narrow planting trees will probably require curb extensions. These curb extensions can also be rain gardens increasing the amount of stormwater infiltrating the earth and not being channeled into the sewer system.

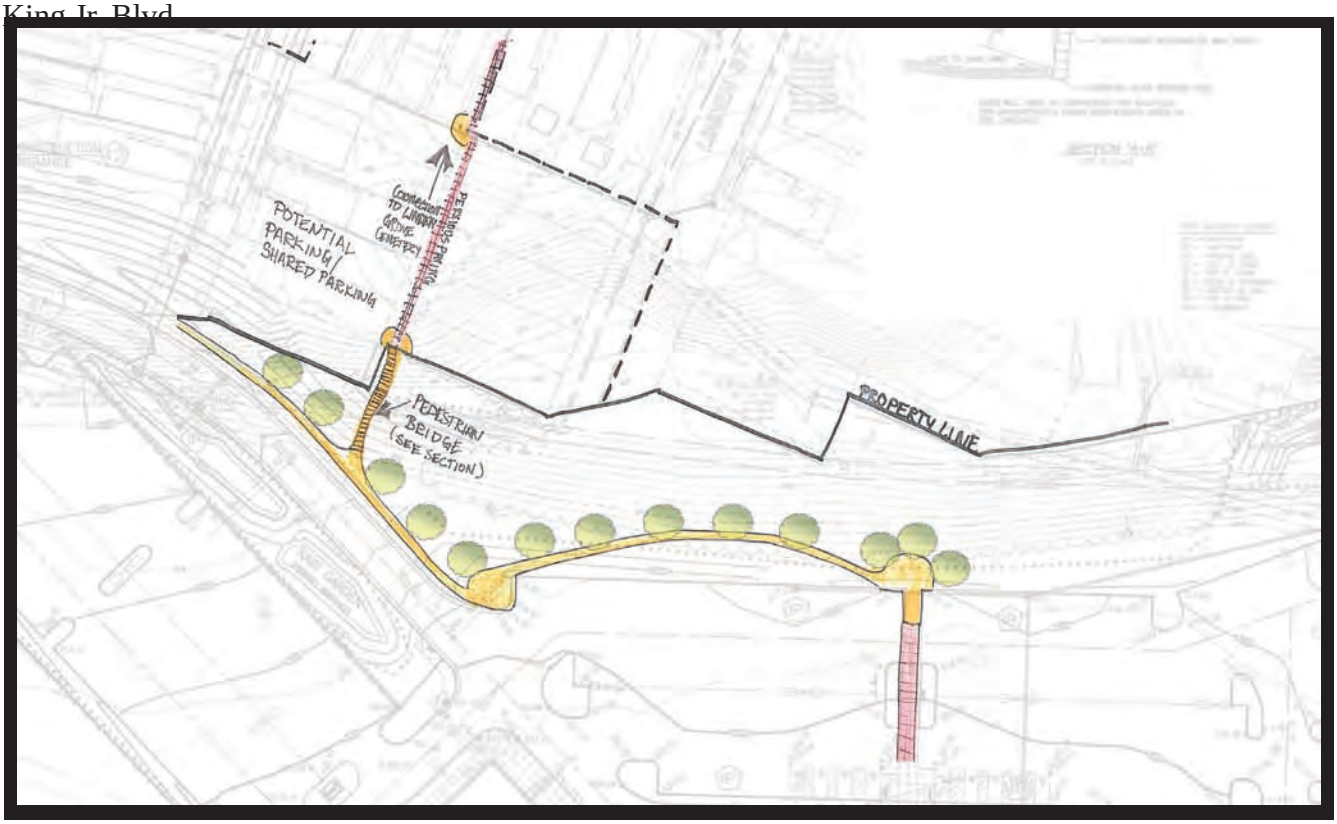



*Figure 2: Potential layout of greenway and pedestrian bridge*

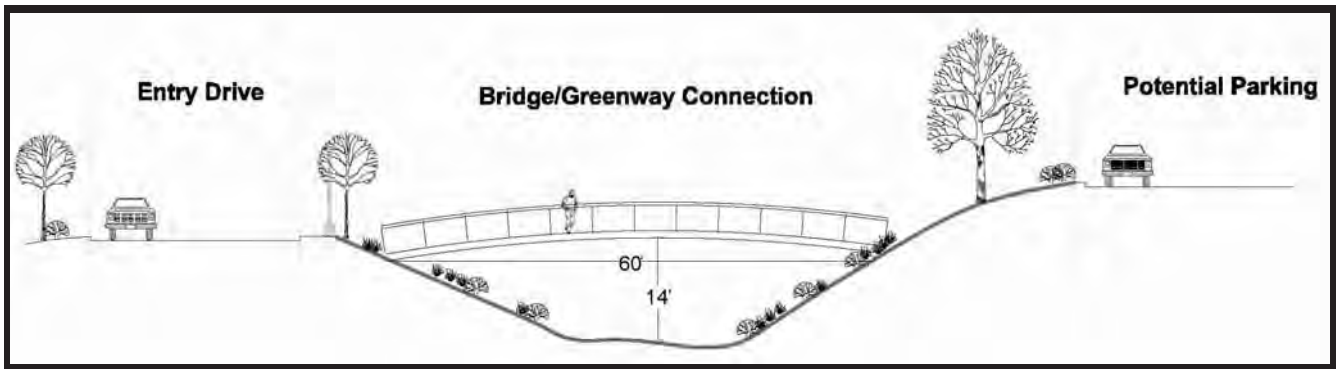


*Figure 3: Cross Section of potential pedestrian bridge*

With the creation of new parks greenways should be developed linking these with other important elements such as Linden Grove Cemetery, the medical center, other parks, local schools, etc. These greenways will provide connections that will improve the value of the community and increase the quality of life while increasing the tree canopy cover, and decreasing the amount of stormwater entering the sewer system.

## GREEN BUILDING

New building techniques are being developed to reduce the impact structures place on the environment and human health. These building techniques, materials, and fixtures reduce the amount of water used in the building and entering the storm sewage system; reduce the amount of energy required to light, heat and cool the building; and reduce the amount of waste by using renewable or recycled material. These ideas and techniques extend to the site of the building and its landscaping.

There is growing attention being given to green building as energy costs climb, and Northern Kentucky already has examples of these techniques with Twenhofel Middle school, and James A. Caywood Elementary school. St. Elizabeth Medical Clinic Covington is planning to have a green roof, and rain gardens which will reduce the amount of rain water flowing into the sewage system. The leading standard of green building is the Leadership in Energy and Environmental Design (LEED) Green Building Rating System created by The U.S. Green Building Council. This rating system is used to evaluate a building's level of greenness and to be LEED certified is becoming a sought after prestigious award. It is the recommendation of this study that future development within the study area incorporate green building techniques and pursue LEED certification. As noted previously the study area lies within a critical storm water area. These recommended techniques can prove useful to both conserve energy and help manage storm water.

## RECOMMENDATIONS

Implementation of this, or any part of the plan, will rely on collaborative efforts among all of those involved in the community. The recommendations in this section of the study are made in an effort to take the some of the burden of implementation off the shoulders of the city. These collaborations would include neighborhood/community organization, local companies, local property owners, and the city.

Opportunities for grant funding are usually available every year, but these funds are generally limited and are very competitive. The small sizes of potential parks may hinder efforts for attaining grant funding. However, if a marketing strategy is put in place, opportunities for grant funding may be more readily available. Marketing several parks together, possibly including parks in other parts of the city, as one large project, likely increases the chances for funding as well as creates connectivity throughout the neighborhood.

A few marketing ideas, include:

- Murals/Kids Art Work – supported by local elementary schools
  - Grades 1-3 do a project for display in one park
  - Grades 4-6 do a project for display in another park
- Community Gardens
  - One park is the food community garden
  - One park is the flower community garden
  - One park is the farmers' market location
- Age
  - One new park for young children
  - One new park for adolescent children
  - One new park for the elderly
- Water gardens
  - One park, water year round
  - One park, water only after large rains

Maintenance of public spaces, including parks, is a challenge for many communities. For this reason some communities are hesitant to undertake creation of new park and recreation facilities. Groups and organizations that could assist in creating and maintaining the parks may include:

- Center for Great Neighborhoods
- Local artists foundations
- Baker Hunt Foundation
- Friends of Peaselburg Neighborhood Association
- The Westside Action Coalition
- Trinity Episcopal Church
- Southside Baptist Church
- Saint Augustine Catholic Church
- Glenn O. Swing Elementary School
- John G. Carlisle Elementary School

**Parks, Greenways, and Stormwater**

- In order to create new parks within the study area a Linden Gateway Parks Committee should be formed with representatives from the Neighborhood Associations, Center for Great Neighborhoods, the City of Covington, and the local institutions that can assist in maintaining the parks. The Committee should establish a theme for the parks to be created which will assist when funding is sought from various sources.

- The city should pursue the possibility of purchasing land that could become park space within the study area. The primary locations are the parcels south of the empty lot they currently own at 1323 Russell Street, and the empty lot located on the Southwest corner of the 15th Street and Russell Street intersection.

- The Westside Action Coalition along with the City of Covington, the Center for Great Neighborhoods, the St. Elizabeth Medical Center Covington, the Friends of Linden Grove Cemetery, and other local agencies such as the Northern Kentucky Urban and Community Forestry Council and the Kenton County Conservation District, should work together in establishing a green corridor connecting the Lance Corporal Justin Sims Memorial Park up the east side of the St Elizabeth property and then over to the Linden Grove Cemetery.

- Once the location of the future parks is established green corridors should be planned to connect them to Linden Grove Cemetery. The Neighborhood Associations should work with the city and other agencies to establish these corridors.

- The potential to preserve the railroad right-of-way that extends along the eastern boundary of the study area as a green corridor should be explored.

- The Neighborhood Associations along with the Center for Great Neighborhoods, the city, and other agencies should put together workshops on selecting the right tree, planting, and caring for trees. Workshops for focusing on stormwater run off and what can be done to reduce the amount should also be established. These could

include information on rain barrels, rain gardens, and permeable pavement. These workshops could become part of an annual spring festival focusing on beautifying the neighborhood.

- The city and/or neighborhood associations could work with Sanitation District No. 1 and the Northern Kentucky Urban and Community Forestry Council to develop a program to plant more trees in the study area and reducing the amount of impervious material.

- The city should remove all the concrete in the planting strip. Trees should be planted in all planting strips that are wide enough.

*Kavanaugh Street - Planting strip on east side of street*

The transportation network in the study area is primarily set due to:
1) The dense development and limited availability for new right-of-way; and
2) The major roadway reconstruction efforts currently underway.

As identified in the Interim Report, Main Street has been realigned to provide direct access for 12th St./ Martin Luther King, Jr. Blvd. to the St. Elizabeth Medical Center Covington site on the west side of the study area. In addition, the Kentucky Transportation Cabinet is currently in the process of reconstructing 12th St./Martin Luther King, Jr. Blvd. which will restrict the existing access points at Lee Street, Fisk Street and Banklick Street. The 15th Street Bridge over the railroad, which connects Russell Street with Madison Avenue, has recently been closed by the city due to structural concerns. Therefore, the primary concentration of the recommendations of this study are to reconfigure the existing street system to improve mobility for the residents and users of the study area while complementing the changes in traffic patterns brought about by the above projects.

Three tiers of recommendations are provided to address the transportation elements of this plan.

1. **Short-term improvements** are low-cost improvements such as changes in traffic control and traffic patterns that can be implemented immediately. While low cost, these measures represent changes that are needed to improve mobility and complement the various projects in the area.
2. **Areas that require further study** may provide low cost solutions, but require additional study outside the scope of this effort. These recommendations primarily concentrate on modifications to existing traffic signals that require detailed traffic analysis for further evaluation.
3. **Long-term improvements** have the ability to significantly improve safety and mobility, but require extensive capital improvements and impacts to adjacent properties. These improvements should be considered when it is within the budgetary constraints of the city and/or when further redevelopment in the area occurs that would make them feasible.

The reduction in the number of signalized and full/unrestricted access points along 12th St./Martin Luther King, Jr. Blvd. will redistribute traffic entering and exiting the study area to the north. The redesigned Main Street will serve as the primary entrance to the St. Elizabeth Medical Center Covington, and existing properties to the west of Linden Grove Cemetery. The entrances at Holman Avenue and Russell Street will serve as the primary ingress and egress points to 12th Street for the residential and industrial properties east of Linden Grove Cemetery as well as residential areas to the south. Traffic volumes on Lee Street, Banklick Street, and Fisk Street are expected to be reduced due to the restricted access imposed by the 12th St./Martin Luther King, Jr. Blvd. project. These improvements will polarize traffic to the east and west ends of the study area, concentrating them at Main Street and Russell Street. As a result, east-west connectivity is a major concern within the study area. East-west connectivity was also the most frequent concern noted through comments gathered in the public involvement process.