

18th Street Corridor Report 2013

Center for Environmental Policy and Management
University of Louisville
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Table of Contents

- Introduction1
 - Structure of Report1
- Description of 18th Street Corridor2
 - Corridor Study Area Boundaries.....2
 - Park Hill Industrial Corridor2
 - Demographics3
 - Land Use13
 - Key Assets.....14
 - Mobility and Transportation16
- Brownfields and Vacant/Underutilized Properties.....18
 - Vacant Properties18
 - Louisville and Jefferson County Landbank Authority Incorporated19
 - Network for Community Change19
 - Brownfields19
- Future Uses Suggested Through Community Engagement21
- Significant Sites of Community Concern.....23
 - Former Philip Morris Site, Southwest Corner of 18th and Broadway24
- Recommendations to Support the 18th Street Corridor Brownfields Redevelopment25
 - Street Scape Improvements27
 - Land Use and Community Form30
 - Mobility30
- Conclusions.....32
- APPENDICES.....33
 - Maps.....33
 - AMEC Assessment 2009 Assessment Data.....43
 - Community Identified Properties of Concern, Site History, and Suggested Future Uses**Error! Bookmark not defined.**
 - University of Kentucky Landscape Architecture Student Black Leaf Site Plans Fall 2011**Error! Bookmark not defined.**
 - University of Louisville Capstone Spring 201259
- References.....65

Table of Figures

Figure 1 – 18 th Street Corridor Demographic Study Area Population Pyramid	3
Figure 2 – 18 th Street Corridor Population by Race	4
Figure 3 – Jefferson County, KY Population by Race	5
Figure 4 – 18 th Street Demographic Study and Jefferson County, KY Median Household Income	6
Figure 5 – 18 th Street Demographic Study and Jefferson County, KY Families in Poverty with Children	7
Figure 6 – 18 th Street Demographic Study and Jefferson County, KY Educational Attainment, Population 25 Years and Older	8
Figure 7 – 18 th Street Demographic Study and Jefferson County, KY Percentage of Vacant Housing Units	9
Figure 8 – 18 th Street Demographic Study and Jefferson County, KY Vacancy Rates	10
Figure 9 – 18 th Street Demographic Study and Jefferson County, KY Percentage of Cost-Burdened Homeowners	11
Figure 10 – 18 th Street Demographic Study and Jefferson County, KY Percentage of Cost-Burdened Renters	12
Figure 11 – The National Center for Phytoremediation Research, Practice, and Implementation by Justin Menke	44
Figure 12 – New Leaf Commons by Thomas Tague	46
Figure 13 – The Rustic Renewal by Christopher Fielder	48
Figure 14 – Park Hill Commons by Jack Simmons	50
Figure 15 – University of Louisville Center for Renewable Energy Research by Thomas Wortman	52
Figure 16 – UofL Park Hill Medical Plaza by Jan-Michael Lambdin	56
Figure 17 – UofL 2012 Capstone Studio 18 th Street Corridor Poster	59
Figure 18 – Aquaberry Orchard by Kat Becker, Danielle Meyers, and Kelly Reed	60
Figure 19 – Green Leaf Development by Evan Conder, Megan Enyeart, and Aaron Hawkins	61
Figure 20 – On the Track Development by Scott Ramser and Nick Creevy	62
Figure 21 – Park Hill Green by Abigail Free, Amanda Strong, and Chuyan Hu	63
Figure 22 – Solarleaf Park by Thomas Beard, Wanice Bland, and Laura Humphrey	64

Table of Maps

Map 1 – 18 th Street Commercial Corridor	33
Map 2 – 18 th Street Corridor Study Area	34
Map 3 – 18 th Street Corridor Demographic Study Area	35
Map 4 – 18 th Street Corridor Zoning Map	36
Map 5 – 18 th Street Corridor Form District Map	37
Map 6 – 18 th Street Corridor Land Use Map	38
Map 7 – TARC Routes within the 18 th Street Corridor	39
Map 8 – Bicycle Routes within the 18 th Street Corridor	40
Map 9 – Observation Walks Property Data	41
Map 10 – Park Hill Environmental Site Inventory	42
Map 11 – 18 th Street Corridor Study Area by Sections	43

Introduction

In October 2011, the U.S. Environment Protection Agency (U.S. EPA) awarded Louisville Metro Department of Economic Growth and Innovation (LMEGI) two Brownfield Assessment Grants for hazardous substances and petroleum. As part of these grants, LMEGI partnered with the University of Louisville Center for Environmental Policy and Management (CEPM) to collect and update existing data and obtain community input through public meetings about past and future uses of properties along the 18th Street Commercial Corridor in Louisville, KY. The boundaries of the 18th Street Commercial Corridor extend from West Broadway south to Algonquin Parkway including the two parcels to the east and west of the corridor (*See Maps [Map 1](#) on page 31*). The purpose of this report is to serve as a resource kit that provides information to support a corridor plan and facilitate the revitalization this corridor.

The 18th Street corridor is the major arterial road servicing the heavily traveled industrial/commercial area connecting the outlying residential neighborhoods and is a critical area that impacts the successful revitalization of West Louisville. This report assembles the information gathered from several different efforts that focused on the corridor and its future. It is intended to be used as a tool for residents, business owners, Louisville Metro agencies and other community stakeholders to promote positive change and encourage the revitalization of the 18th Street corridor. The information gathered and recommendations made in this report are based on:

1. A series of community meetings, open to the public, where properties were identified and discussed in terms of previous uses, current conditions, and future uses.
2. Data collected by AMEC, an environmental consultant contracted by LMEGI that identified properties with potential contamination.
3. Vacant property data from Louisville Metro and the Network Center for Community Change (NC3).
4. Land-use inventory, corridor condition analysis, and recommendations compiled by University of Louisville urban planning graduate students.
5. Site plans created by University of Kentucky Landscape Architecture students for the former Black Leaf Chemical site.
6. U.S. Census, American Community Survey, 2008-2011 5-year Estimates
7. Previous studies and plans related to the area.

Relevant information gathered from each of these efforts is compiled for use by public officials and stakeholders in decision-making processes for projects related to the 18th Street corridor and other nearby areas in need of revitalization and reinvestment.

Structure of Report

We begin with a description of the study area that includes a brief history, its geographic location and boundaries, and relevant community demographic and economic data. There is a focus on the state of vacant property within the study area and a summary of current land use patterns. This is followed by descriptions of key assets and an overview of mobility. Finally we emphasize the state of brownfields and vacant underutilized properties in the study area. This includes specific attention to the former Black Leaf Chemical property due to its scale, environmental condition and potential as a catalyst site.

Description of 18th Street Corridor

The 18th Street Corridor is a two-mile thoroughfare located in the Park Hill neighborhood which is located in West Louisville. The majority of the corridor is located in the city's Metro Council District 6, with a portion in Metro Council District 3. Most of the parcels/lots along the corridor are zoned commercial and the form district designation is primarily Traditional Marketplace Corridor. The commercial uses are surrounded by residential neighborhoods that include single-family homes and multi-family structures. Other land uses within the study area include an elementary school, a community center with an adjacent public park, both owned and operated by the Louisville Metro Parks Department. Another public park is immediately adjacent to the study area. There are also several industrial sites, including the vacant 29-acre former Black Leaf Chemical site that has come to the attention of U.S. EPA and the Kentucky Division of Waste Management (KDWM) due to significant contamination found on the site. In addition, the study area contains a significant number of vacant and abandoned properties, leaving a large portion of the study area underutilized.

Corridor Study Area Boundaries

The 18th Street Corridor is the northern most section of US31W/US60 (Dixie Highway), which is a major arterial road servicing the heavily traveled industrial/commercial area that runs north/south through portions of the California, Parkland and Park Hill neighborhoods, and on through the Algonquin neighborhood and the City of Shively to Fort Knox. The corridor study area runs from West Broadway at the north end toward Algonquin Parkway to the south (See [Map 2 on page 32](#)). For this study, we included the two-block areas to the east (South 15th and South 16th streets) and west (South 23rd Street) of 18th Street due to the residential, commercial, and industrial communities' impact on and contributions to the physical character and economic viability of the corridor. The entire boundary area is 1.43 square miles.

Park Hill Industrial Corridor

The 18th Street Corridor sits immediately adjacent to the 1,400-acre Park Hill industrial corridor which was once a major center of industry for Louisville. Located at the convergence of CSX railroad lines and its proximity to the Ohio River, this area housed several major industries such as the former American Standard, Brown & Williamson, Philip Morris, Cochran Foil (later purchased by Anaconda Aluminum) and Rhodia SA properties. Legacy industries still operating in the area include several such as Brown-Forman, Heaven Hill Distilleries, and Sud-Chemie which is owned by Switzerland-based chemical company Clariant International Ltd. Park Hill currently offers one of Louisville's few, large "in-fill" industrial development opportunities, accesses major air, rail, and highway transportation, and has a large nearby workforce. The Park Hill Corridor Implementation Strategy (2009) reported that study area had 240 businesses employing nearly 7,200 people. The same report estimated that investment in the revitalization of the Park Hill Industrial Park could create a \$336 million economic impact on the area. Efforts focused on the 18th Street Corridor benefits from drawing on the information and recommendations in the Park Hill Corridor Implementation Strategy but needs to adapt to the less industrial nature of much of the 18th Street Corridor.

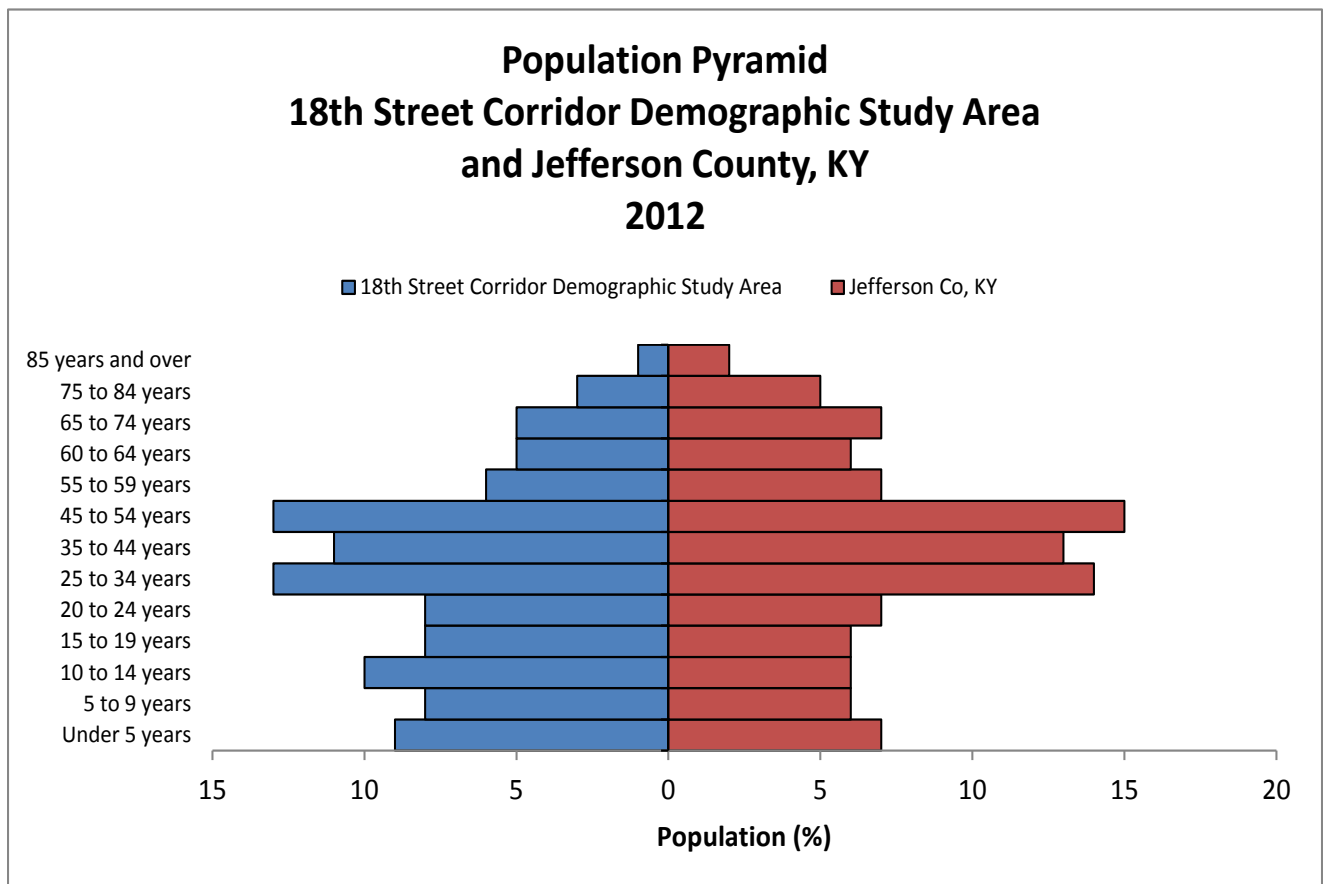
Demographics

For the purpose of this report, the demographic profile for the 18th Street Corridor is comprised of U.S. Census Tracts 16, 17, 18, 27, and 28. See [Map 3](#) on page 33.

Population

The population for this area is an estimated 11,301; the breakdown by gender is 53 percent female and 47 percent male which is consistent with the Jefferson County percentage of population by sex (52 percent and 48 percent respectively). The median age for these five tracts is from 27-39 years of age. The 18th Street Demographic Study Area can be characterized as having a higher percentage of young adults and children as compared to Jefferson County; 35 percent of the demographic study area is 19 years or younger and 51 percent are between the ages of 20 and 59. Successful development of the corridor should include a focus on education and youth programs as well as job training and job placement services.

Figure 1 –18th Street Corridor Demographic Study Area Population Pyramid

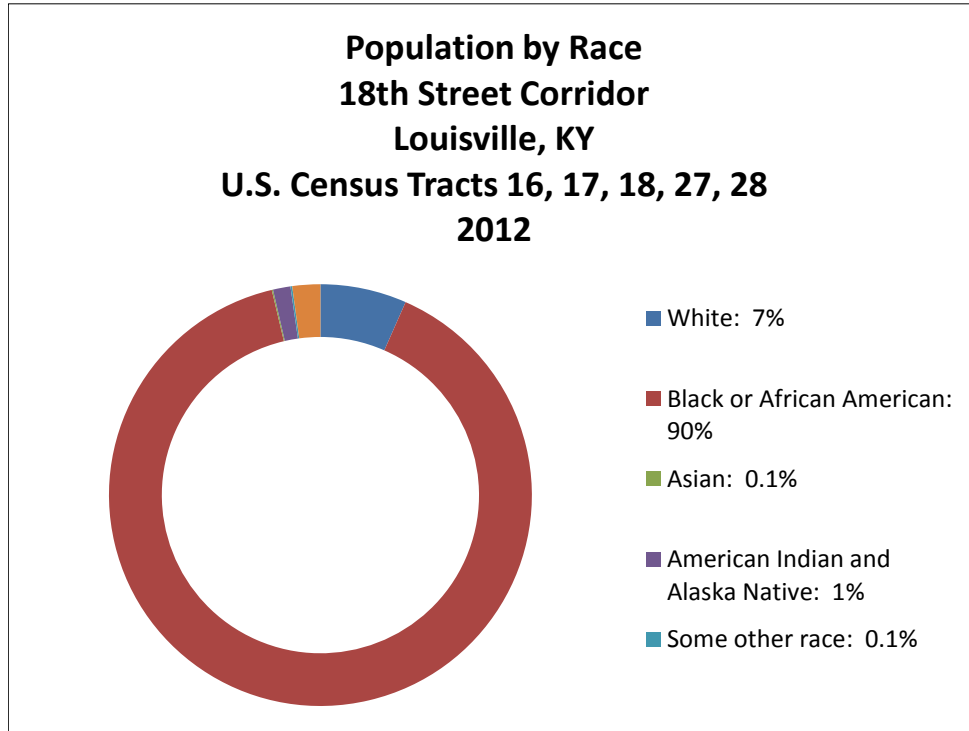


U.S. Census, 2008-2012 American Community Survey 5-year estimates

For both the 18th Street Corridor Demographic Study Area and Jefferson County, nearly all of the residents report being one race (98 percent). However, the distribution of being white or black/ African-American within the demographic study area is almost totally opposite of the percentages of these two

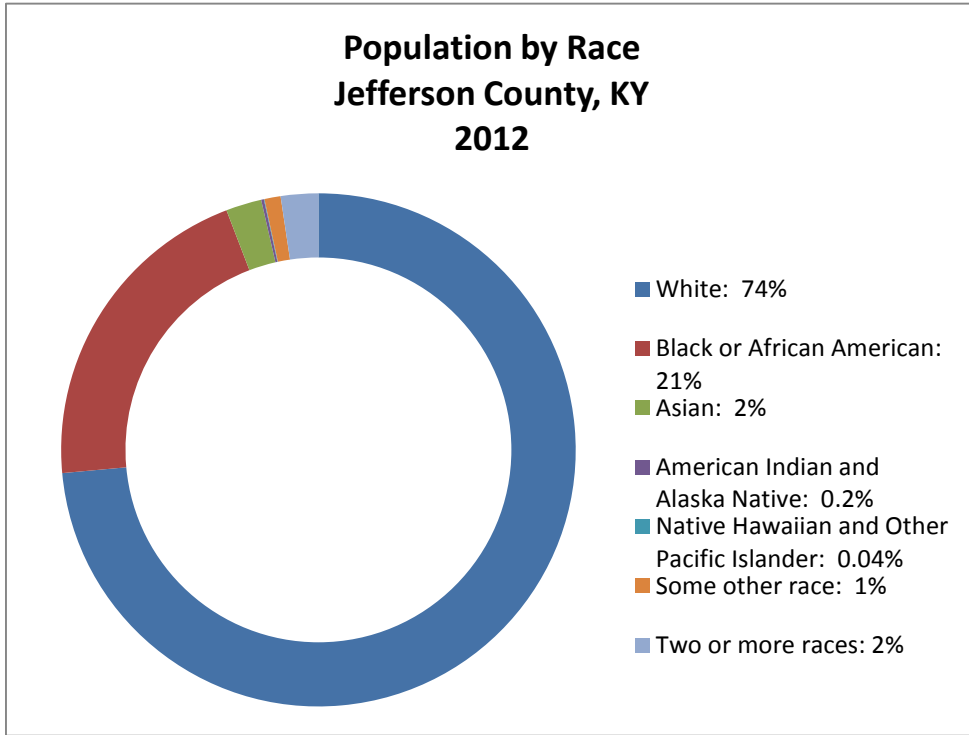
racess within the entire the county. Within the 18th Street Corridor Demographic Study Area, an estimated 118 residents (1 percent of population) are of Hispanic or Latino origins and among this group 70 percent are Cuban and 16 percent are Mexican.

Figure 2 — 18th Street Corridor Population by Race



U.S. Census, 2008-2012 American Community Survey 5-year estimates

Figure 3 — Jefferson County, KY Population by Race

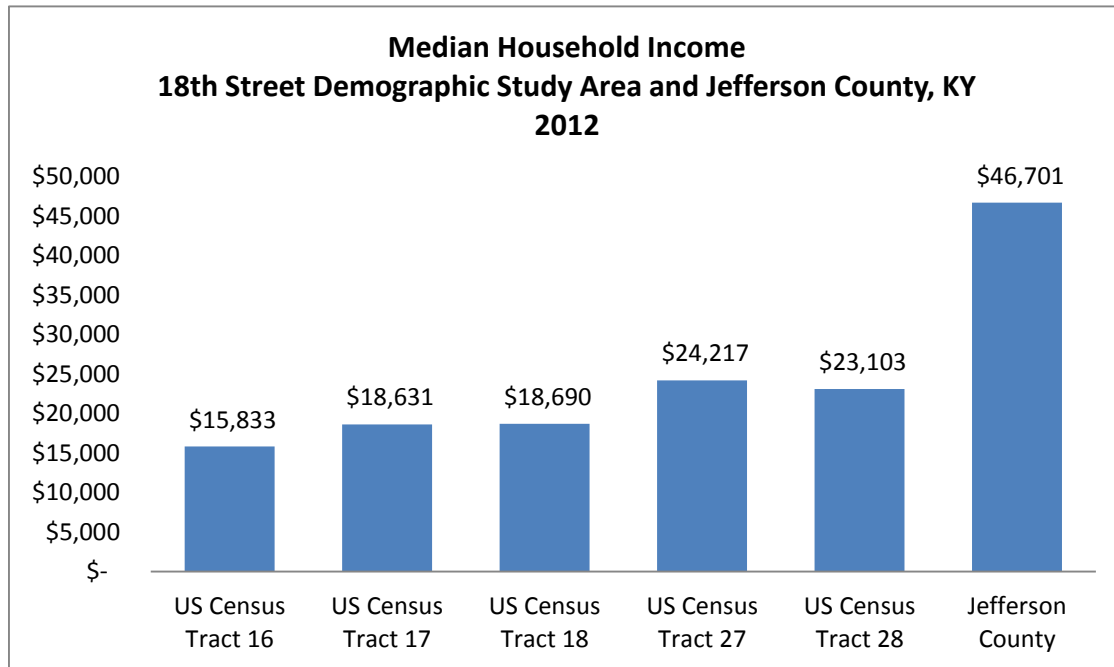


U.S. Census, 2008-2012 American Community Survey 5-year estimates

Income

Of the estimated 4,249 households in the 18th Street Corridor demographic study area, the median household income for each of the five census tracts range between \$15,833 and \$24,217; these are well below the Jefferson County median household income of \$46,701. Though the estimated 70 percent households in the 18th Street Corridor demographic study area are reported as having earned incomes, these incomes are much lower than the 74 percent of all Jefferson County households with earned incomes. The mean earnings among the five census tracts within the 18th Street Corridor demographic study area is \$23,960-\$35,122 as compared to the Jefferson County mean household earnings of \$66,593.

Figure 4 — 18th Street Demographic Study and Jefferson County, KY Median Household Income

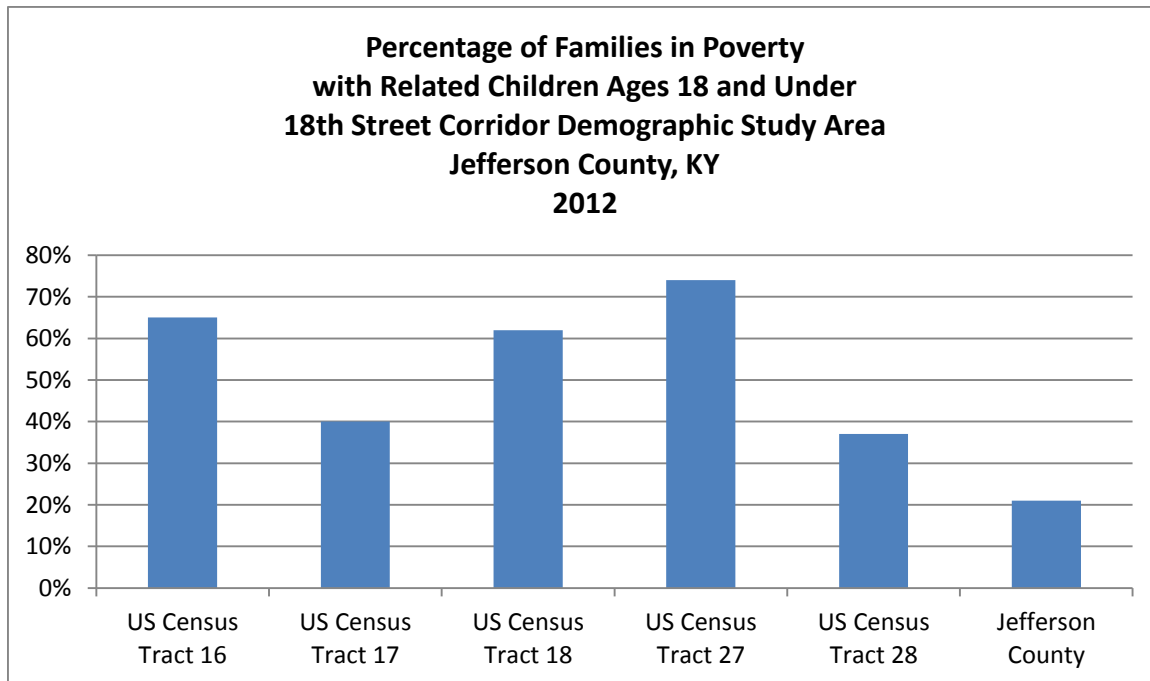


U.S. Census, 2008-2012 American Community Survey 5-year estimates

The percentages of 18th Street Corridor demographic study area households with Social Security (27 percent) and retirement (14 percent) incomes are somewhat consistent with the percentages of Jefferson County households with Social Security (29 percent) and retirement (19 percent) incomes. However the mean dollar amounts for Social Security income in census tracts 16, 17, 18, and 28 are lower than the Jefferson County Social Security mean income (\$9,763-\$11,820 as compared to \$16,397). The mean Social Security income in census tract 27 is \$16,095. The mean retirement income for households in census tracts 16, 17, 27, and 28 fall between \$6,040 and \$11,863; the mean retirement income is \$18,854 in census tract 18 which is not too far below the Jefferson County mean retirement income of \$21,820.

While 13 percent of people and families in Jefferson County had incomes below the poverty level, for the five census tracts in the 18th Street Corridor demographic study area the range is 40 percent to 53 percent for those with incomes below the poverty level. For families with related children ages 18 and under, the range of those with family incomes below the poverty level within the five census tracts is 37 percent (census tract 28) to 74 percent (census tract 27); 21 percent of all Jefferson County families with children ages 18 and under have incomes below the poverty level (U.S. Census, 2008-2012 American Community Survey).

Figure 5 — 18th Street Demographic Study and Jefferson County, KY Families in Poverty with Children



U.S. Census, 2008-2012 American Community Survey 5-year estimates

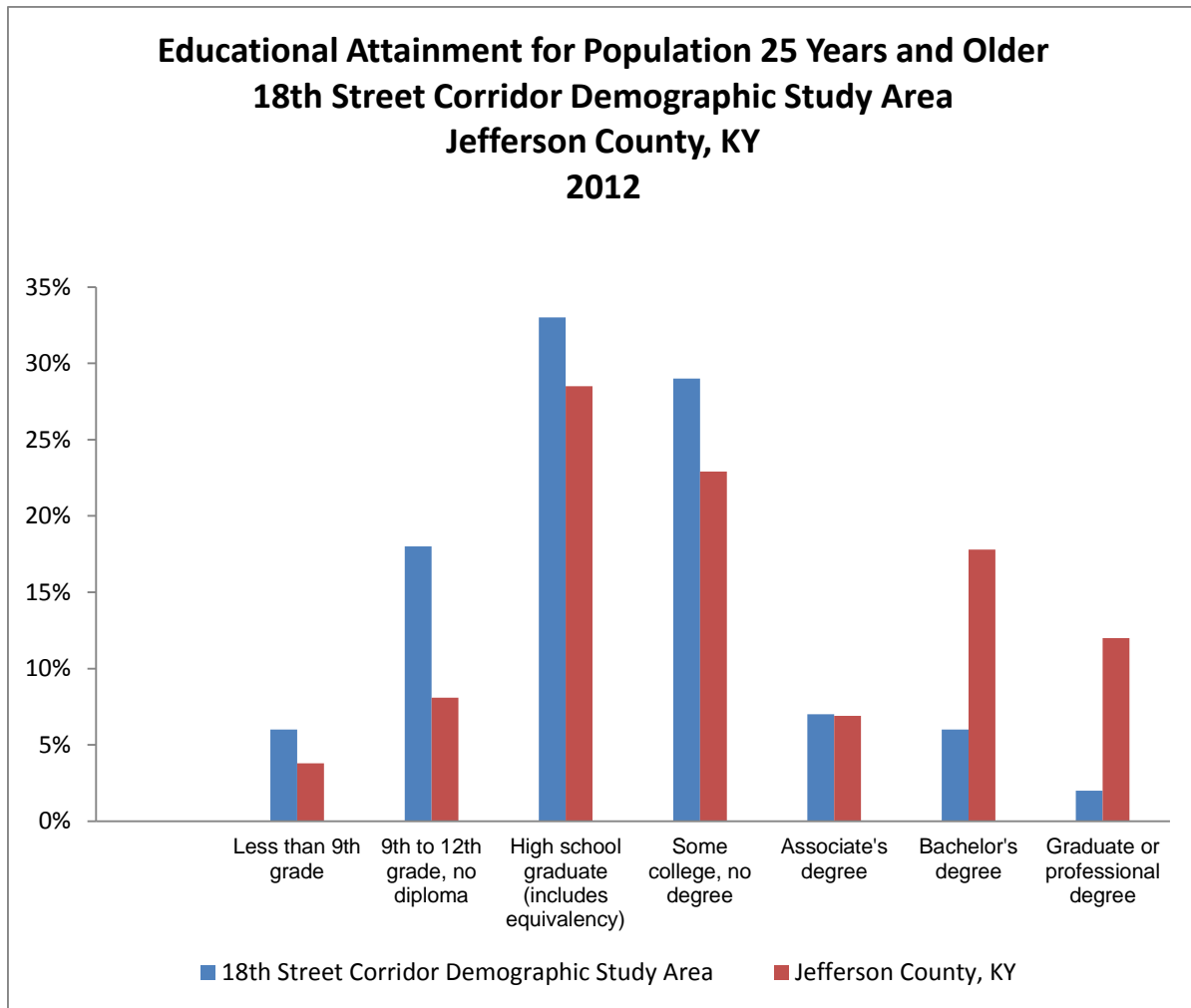
Poverty in this area is significant and suggests that attention be paid to investments in affordable housing, living wage jobs, affordable day-care, job training, and nutrition programs that are known to mitigate the impacts of poverty. However, this should not imply that the residents in this community do not have the wherewithal to support new commercial and retail developments. Often lower income communities support local cash economies that are not easily measured by traditional economic market analyses.

Educational Attainment

The levels of education for persons 25 years and older within the 18th Street Corridor Demographic Study Area lag behind the Jefferson County educational attainment among persons in the same age group. The major differences between the demographic study area and the county’s levels of educational attainment is found either in the percentage of the population with education levels less than a high school diploma (24 percent demographic study area as compared to 12 percent county), and those at the other end of the spectrum who have earned either a Bachelor’s, Graduate, or Professional degree (8 percent demographic study area as compared to 30 percent county).

Educational attainment has a direct effect on the economic vitality on a community; higher levels of education are both an indicator for higher income levels and an economic development tool that can be leveraged when marketing an area for business and industry (Shaffer and Wright, 2010; NIU Research, 2005). Four separate institutions of higher education campuses (Jefferson Community Technical College, Simmons College of Kentucky, Spalding University, and the University of Louisville) are located within three miles of the 18th Street Corridor. Developing a strategy that establishes partnerships between this demographic study area and these institutions of higher education might result in a boost in the number of college graduates who have earned Bachelor’s degrees or higher.

Figure 6 — 18th Street Demographic Study and Jefferson County, KY Educational Attainment, Population 25 Years and Older



U.S. Census, 2008-2012 American Community Survey 5-year estimates

Employment

Of the estimated 8,105 persons in the 18th Street Corridor demographic study area who are 16 years or older, 57 percent are in the labor force; all are in the civilian labor force and none are in the Armed Forces. The percentage of persons unemployed within the five census tracts in the study area range from 22 percent to 25 percent; these percentages are more than twice as high as the equivalent unemployment percentage for Jefferson County (10 percent).

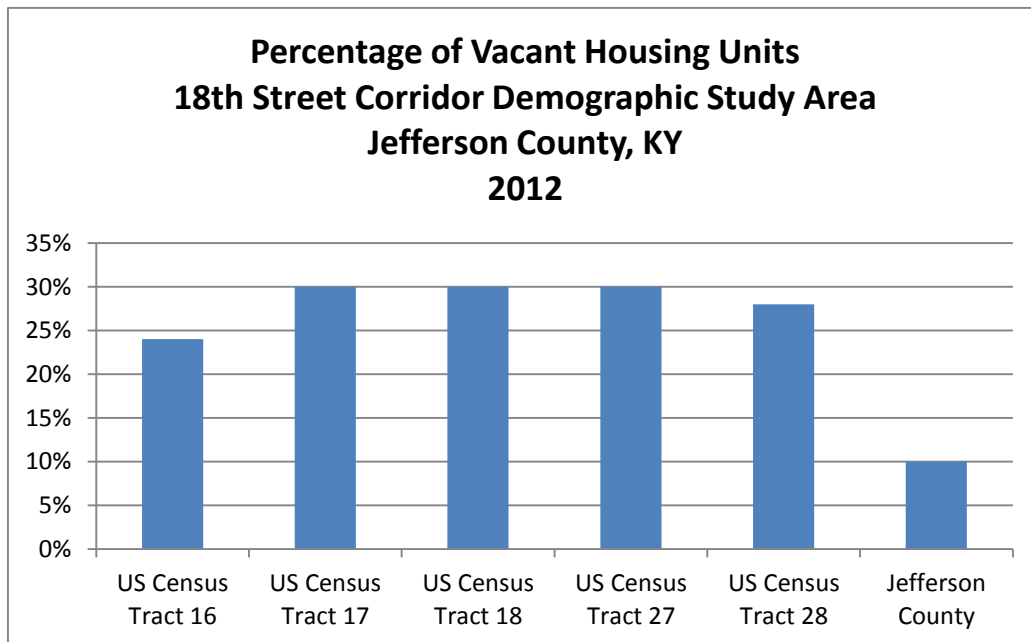
Of the estimated 3,519 civilian employed workers in the 18th Street Corridor demographic study area, 63 percent are either in the service or sales and office fields; 18 percent have production, transportation, and material moving jobs and 15 percent are employed in management, business, science, and arts. Nearly a third (30 percent) is in the educational services, and health care and social assistance industry and 13 percent are employed in the retail industry. Of the three classes of workers, 84 percent are private wage and salary workers, 14 percent are government employees, and 2 percent are self-employed (U.S. Census, 2008-2012 American Community Survey 5-year estimates).

These employment data suggest attention to job creation and training efforts should be closely linked to serving the extant skills and training needs of this population.

Homeownership and Rental

There are an estimated 5,944 housing units in the 18th Street Corridor demographic study area of which 71 percent are classified as occupied and 29 percent vacant. The homeowner vacancy rate¹ in the five census tracts in the demographic study area ranges from 6 percent to 27 percent; for rental housing units range of vacancy rates is 0 to 22. Both the percentage of vacant housing units and homeowner and rental vacancy rates are significantly higher than those for Jefferson County as a whole; 10 percent of all housing units in the county are vacant and the vacancy rate for home-owned units is 3 percent and 8.5 for rental housing units.

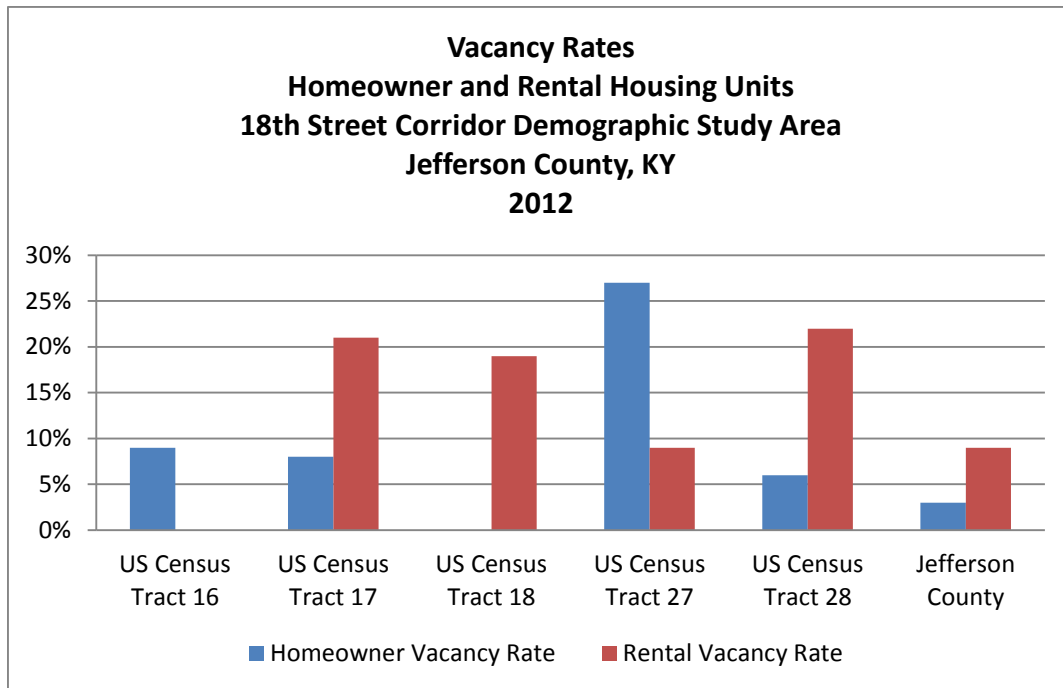
Figure 7 — 18th Street Demographic Study and Jefferson County, KY Percentage of Vacant Housing Units



U.S. Census, 2008-2012 American Community Survey 5-year estimates

¹ Vacancy rates differ from the number of vacancies, as these rates are the percentage of all vacant or unoccupied units over a set period of time.

Figure 8 — 18th Street Demographic Study and Jefferson County, KY Vacancy Rates



U.S. Census, 2008-2012 American Community Survey 5-year estimates

The majority (62 percent) of the occupied housing units in the demographic study area is renter-occupied; 38 percent are owner-occupied. This breakdown of homeowner and rental occupied housing units is the inverse of the Jefferson County percentages of occupied homeowner (63 percent) and rental (37 percent) housing units. The average household size living in rental housing units is 2.9 persons; for homeowner households, the average household size is 2.2 persons.

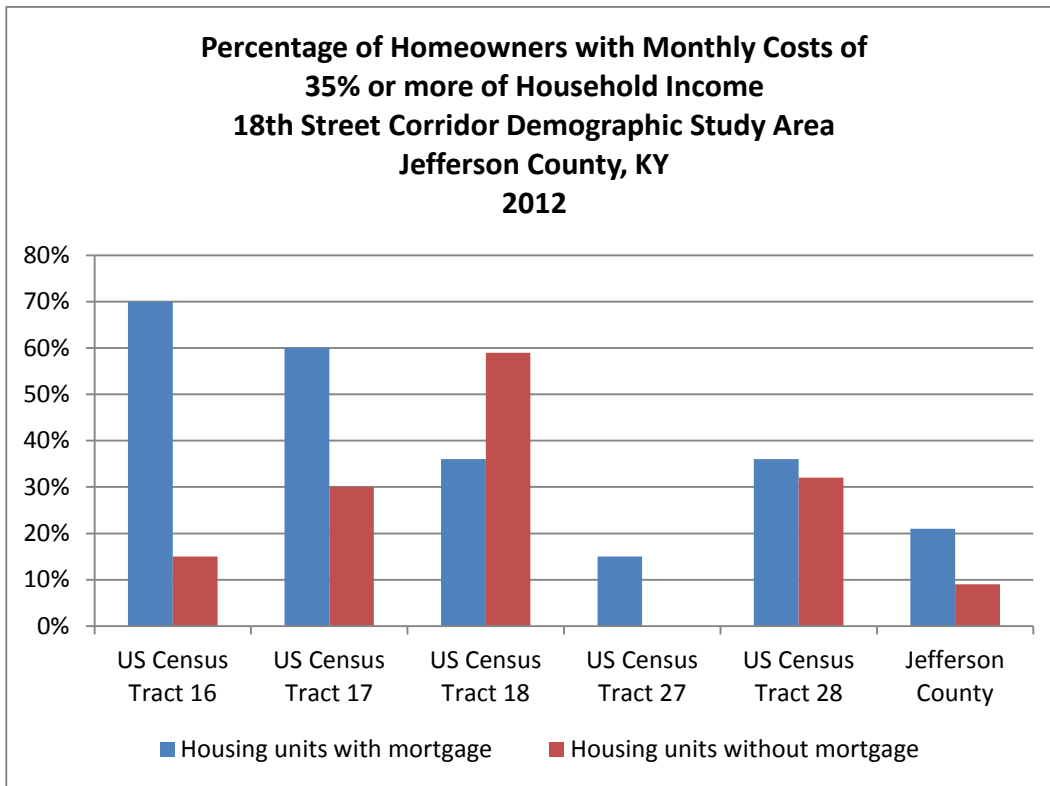
One-half of the householders in the 18th Street Corridor demographic study area moved into their housing during the years 2000 to 2009.

The majority of the owner-occupied units have a mortgage (61 percent) with 39 percent being mortgage-free. These mortgage status rates indicate that a higher percentage of owner-occupied homes in the 18th Street Corridor demographic study area have no mortgages as compared to the mortgage status of owner-occupied housing units in Jefferson County; the percentage of these homes with a mortgage is 69 percent and 31 percent of these housing units are without a mortgage. Housing values, discussed below, play an important role a housing unit mortgage status.

Higher percentages for both homeowners with and without a mortgage in the 18th Street Corridor demographic study area face higher monthly owner costs² as a percentage of household income when compared to the same population in Jefferson County as a whole. Nearly one-half of homeowners in the study area with a mortgage are cost burdened; 46 percent spend 35 percent or more of their household income on monthly owner costs and 26 percent of mortgage-free homeowners spend 35 percent or more of their household income on monthly owner costs. In Jefferson County these percentages are 21 percent and 9 percent respectively.

² These costs include mortgages, real estate taxes, insurance premiums, utilities, and heating fuels (U.S. Census, 2014).

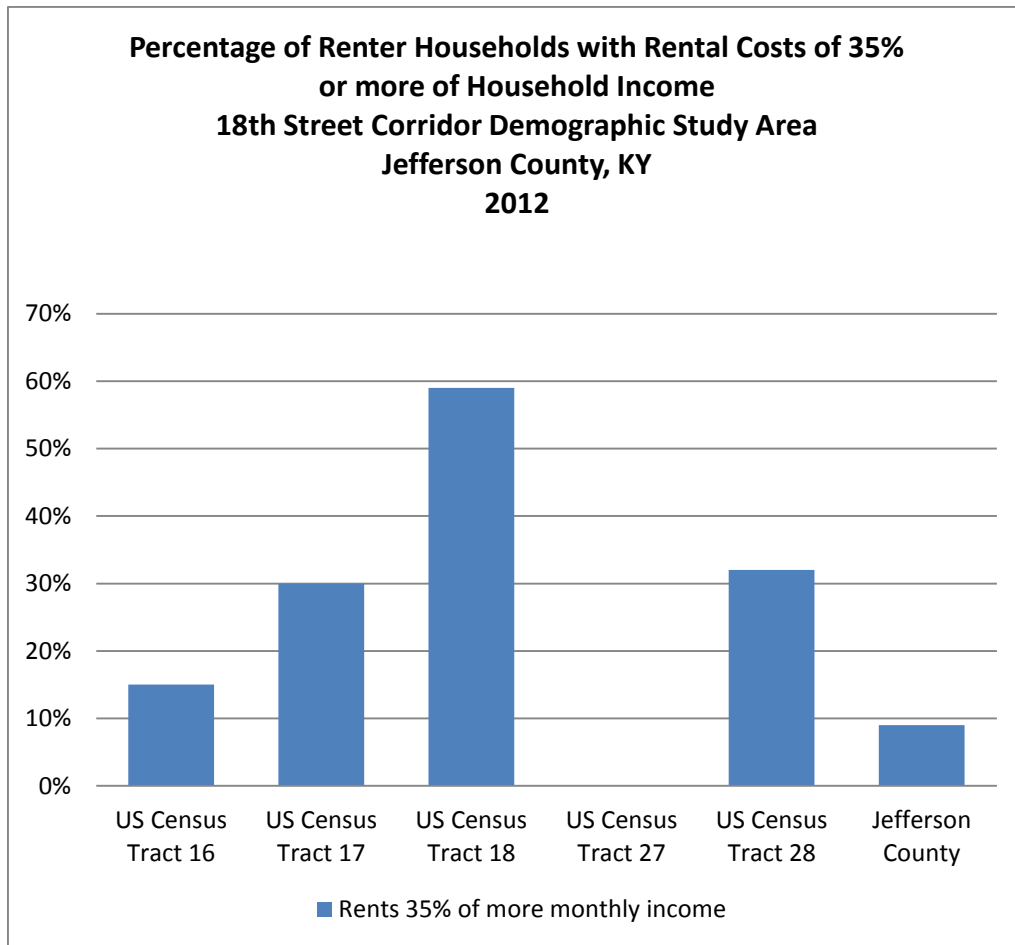
Figure 9 — 18th Street Demographic Study and Jefferson County, KY Percentage of Cost-Burdened Homeowners



U.S. Census, 2008-2012 American Community Survey 5-year estimates

Of the estimated 2,454 households paying rent, a third has monthly rental payments that range from \$750 to \$999; nearly a fourth (24 percent) of the total rental households pay between \$500 to \$749 per month and 20 percent have monthly rent payments of \$1,000 to \$1,499. In the study area, 59 percent of renter households have rents that constitute 35 percent or more of their monthly household income. Median rent in the five census tracts in the demographic study area range from \$615 to \$803. Compared to the \$706 median rent for Jefferson County, the data suggest that rents in the 18th Street Corridor demographic study area are significantly higher than in other parts of the county especially when factoring in the low property values for the study area (*See next section on Residential Property Values*).

Figure 10 — 18th Street Demographic Study and Jefferson County, KY Percentage of Cost-Burdened Renters



U.S. Census, 2008-2012 American Community Survey 5-year estimates

Both homeowners and renters in the 18th Street Corridor demographic study area are likely to be cost-burdened; a greater percentage of households in this study area pay 35 percent or more of monthly income to household costs or rents than in Jefferson County as a whole. As previously stated in the section on Incomes, poverty is significant. Median rents are higher than the Jefferson County median rent in all but one of the five census tracts that form the 18th Street Corridor demographic study area. Redevelopment efforts should include a marked effort to include employment for local residents, and affordable housing.

Residential Property Values

Housing values are significantly lower in the 18th Street Corridor demographic study area as compared to those in Jefferson County. Within the five census tracts in the study area, the median value for owner-occupied homes is from \$52,200 to \$68,200; the values for these owner-occupied housing units range from 65 percent to 54 percent less than the Jefferson County median value of \$148,700.

Improvements to a deteriorated and poor commercial corridor are known to have a positive impact on neighboring residential properties. *Neighborhood greening* projects which includes tree planting,

sidewalk and roadway improvements, planters, street furniture, and median plantings, have been found to increase nearby home values (Wachter and Gillen, 2006).

Land Use

The following section describes current zoning and land use of the 18th Street Corridor bounded on the north at the intersection of 18th Street and Broadway and 18th Street and Algonquin Parkway to the south. See [Map 4 on page 34](#), [Map 5 on page 35](#), and [Map 6 on page 36](#).

18th Street

Parcels directly adjacent to 18th Street at the intersection of 18th Street and Broadway are zoned M1; these were the former Phillip Morris Tobacco Company manufacturing sites. The area is in a Traditional Workplace (TW) form district.

South of this area, the form district for parcels along 18th Street is Traditional Market Corridor (TMC) and zoning alternates from C1 and C2 commercial uses to R7 residential with the exception of the northeast and northwest corners of the 18th and Dumesnil street intersection. These parcels, with a church and day care (zoned R7) located at the northeast corner and the Simmons University Campus (zoned R5) at the northwest corner, are within the Traditional Neighborhood (TN) form district.

Further south on 18th Street, between Woodland and West Burnett avenues, the zoning changes to M1 Industrial district. The form district for the east side of 18th street along this section is TW, but changes to TMC on the western side of the street. The TMC form continues until the intersection of 18th and Lee streets where to the east, zoning again designates parcels industrial (M1) and the form changes again to TW, allowing for continued use of existing industrial buildings on the block. However, about mid-block, the form district and zoning again changes to commercial with a TMC overlay. At the intersection of 18th Street and Vorster Avenue, the form district again changes to TN and zoning allows multi-family residential (R7). On the west side of the street, the TMC form district ends at the intersection of 18th Street and an unnamed alley south of Vorster Avenue. For the remainder of the corridor (approximately one-half block) the form changes back again to TN and zoning allows for residential R5 and R6 uses.

18th Street Corridor Area

The 18th Street Corridor study area encompasses the properties contiguous to 18th Street from Broadway to Algonquin Parkway described above, and extends to the east to the western side of 15th Street and to the west to the eastern side of 23rd Street.

Surrounding blocks are predominately in the TN form district with the exception of large blocks of TW Traditional Workplace parcels predominantly along rail lines in the area. Zoning, in keeping with these form districts, is mostly R5 with some R1 parcels. Parcels in the TW form district are zoned M1 industrial. Along Oak Street to the west of 18th Street is a corridor zoned R7, but with no change in form district designation. Throughout the area there are occasional parcels zoned C2 and a sparse distribution of Office/Retail District (OR1 and OR2) parcels. Approximately three blocks south of C2 parcels to the south of Broadway and west of the M1-zoned former Phillip Morris Tobacco Company property is a small area zoned R6.

Southeast of Breckinridge Street where the large M1-zoned area ends, is an area that extends approximately 10 blocks to the south and three blocks to the east that is zoned R7 and overlaid with a TN form district designation. This area is interrupted by the industrial area starting at the former Blackleaf Chemical site which is bounded on the north by St. Louis Avenue, east by 15th Street, south by a rail line and west by 18th Street. The concentration of multi-family housing, public and semi-public space, and commercial and office uses is higher in this area than in the rest of the corridor, but single-family residential is still the predominate use. In this area, there is one block bounded by Breckinridge Street to the north, 16th Street to the east, and 17th Street to the west that extends one-half block south of Garland Avenue that is zoned OR2. The area is occupied by multi-family housing and also the location of California Park and the California Community Center, the largest city-owned and maintained park in the corridor. This park is contiguous with Wheatley Elementary School. Other public parks in the corridor include Victory Park, California Leisure Open Space, and St. Louis Park.

Key Assets

The following list of key assets within the 18th Street Corridor study area was compiled from sites identified by participants of any of the three 18th Street Corridor community meetings, UofL’s 2012 Capstone class, and CEPM staff:

Cultural/Historical Sites

- *Kentucky Center for African-American Heritage*, 1701 W. Muhammad Ali Boulevard: Located just north of the 18th Street Corridor, the Kentucky Center for African-American Heritage is dedicated to the preservation and promotion of the black heritage in Louisville, the region, and throughout Kentucky. Housed in a rehabilitated historic trolley barn, the Center also provides venue space for an array of activities and events.

Louisville Metro Parks

- *California Park*, 1104 South 16th Street: This 7.5-acre park is bounded by 16th and 17th streets to the east and west, Prentice Street to the north and Wheatley Elementary School to the south. Amenities include facilities for such sports as baseball, football, basketball, volleyball, and tennis, as well as playground equipment and a water-spray ground.
- *California Community Center*, 1600 W. St. Catherine Street: This neighborhood community center houses a gym, game room, and weight-room. There are other rooms available for classes and meetings. The Center hosts a Teen Board, free GED and Skill-Building classes.
- *California Leisure Open Space*, 963 Dixie Highway: Less than one acre in size and classified as ‘Passive Open Space,’ this green space with trees and shrubs is located on the northeast corner of Dixie Highway and Kentucky Street. A cell tower sits on the adjacent lot to the north. There is a walking path which transverses the property diagonally



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

from the lot with the cell tower to Kentucky Street. The park lacks amenities such as benches, tables or trash bins.

- *Victory Park*, 1051 S. 23rd Street: This Frederick Law Olmstead Park is located on the western edge of the 18th Street Corridor within the bounds of 22nd and 23rd streets and West Kentucky Street and Greenwood Avenue. Consisting of an entire 4-acre city block, this park has a community room/lodge, picnic tables, benches, equipped playground, basketball courts and a large open field for both sport and leisure.
- *St. Louis Park*, 2023 St. Louis Avenue: This small park (.9 acre), which is located at the northeast corner of S. 22nd Street and St. Louis Avenue, has a full basketball court and a defined playground area with playground equipment.

Community Organizations

- *YMCA*, 18th Street and Broadway: The YMCA has purchased and is developing a full service facility at the southeast corner of 18th and Broadway, in the northern end of the 18th Street corridor. Facility plans include leased space for a variety of programs, including several involving the University of Louisville. The YMCA could prove to be a catalyst site for development in the corridor. Potential uses include a community/educational garden, a clinic to better serve the health needs of the community and a solid presence for the University of Louisville west of 9th Street which allows for more comprehensive community engagement and service.

Religious Institutions

- *St. Stephen Baptist Church*, 1018 S. 15th Street: Established in 1926, St. Stephen's currently has 10,000 church members and in 2005 was noted as being among the top 100 largest churches in the United States. The church campus includes a Family Life Center that includes two basketball courts, a bookstore, café, racquetball courts, saunas, a dance studio, state-of-the-art fitness center and classroom space that can accommodate up to 2,500 people.

Commercial

- *Farm Boy Food Mart*, 1200 Dixie Highway: Locally owned and operated, this small grocery store is also a Louisville Metro Department of Health and Wellness' *Healthy in a Hurry Corner Store*³.
- *Rite Way Bar-B-Cue House*, 1548 W. St. Catherine Street: Open since 1943, this family-owned restaurant has been operated by four generations of the late Rev. David Johnson. The restaurant has a 4- and 5-star rating on national restaurant ratings websites.



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

Business/Manufacturing

- *Brown-Forman Company*, 850 Dixie Highway: Founded in 1870, Brown-Forman is a producer of a diverse line of spirits; the company produced the first bottled bourbon in the U.S. Brown-Forman has 4,120 employees worldwide with approximately 1,000 at their company

³ *Healthy in a Hurry Corner Store* is a joint program of the YMCA of Greater Louisville and the Louisville Metro Department of Public Health and Wellness to provide fresh food products to low-income neighborhoods that have little or no access to fresh produce.

headquarters and manufacturing facility in the 18th Street Corridor. The company is known for its philanthropic mission in supporting Louisville arts and culture. Their Dixie Highway campus is an example of historic preservation and is a well-maintained property along the Corridor.

Public and Private Schools, K-12

School facilities in neighborhoods are often seen as a central place for convening community residents to share information, whether in the form of providing spaces for meetings, events, and programs.

Within the 18th Street Corridor

- *Wheatley Elementary*, 1107 S. 17th Street –this school houses a districtwide Mathematics/Science/Technology Magnet Program

Within 2 miles of the 18th Street Corridor boundaries

- *Brandeis Elementary*, 2817 W. Kentucky Street
- *Byck Elementary*, 2328 Cedar Street
- *Cochran Elementary*, 500 W. Gaulbert Avenue
- *Coleridge-Taylor Elementary*, 1115 W. Chestnut Street
- *Maupin Elementary*, 1312 Catalpa Street
- *McFerran Elementary*, 1900 S. 7th Street
- *Roosevelt-Perry Elementary*, 1615 W. Broadway
- *Johnson Traditional Middle School*, 2509 Wilson Avenue
- *Central High School*, 1130 W. Chestnut Street
- *Presentation Academy*, 861 S. 4th Street

Louisville Metro Services

Louisville Metro Police Department

- *Second Division*, 3419 Bohne Avenue: The division station is located a little more than a mile from the center of the 18th Street Corridor.

Louisville Fire Department

- *Louisville Fire Squirt Company 17*, 1824 Garland Avenue
- *Louisville Fire Training Academy*, 1501 W. Hill Street

Mobility and Transportation

Transportation in the 18th Street Corridor is defined by an urban street grid, several bus routes, and three rail lines.

Street System: The north/south railway network that lays within the Park Hill Industrial Corridor acts as a barrier that results in a limited access connection from the 18th Street Corridor to Old Louisville; only Oak and Hill streets which run through the Corridor south of Broadway and north of Algonquin Parkway that provide east/west access⁴. North-south routes south of Wilson Avenue and north of West Hill Street are also disconnected due to railway lines. Early Sanborn maps (1905-1906) show that these street patterns have existed since the early 20th century.

Interstate Access: There is no direct interstate access within the 18th Street Corridor. From the intersection of South 18th and West Hill streets (a central point in the Corridor), I-65 is approximately 2

⁴ Historically, traffic could transverse through the railway corridor via Kentucky Street; in recent years a barrier has been constructed by St. Stephen's Baptist Church on Kentucky Street west of the intersection at 15th Street.

miles to the east; the route to I-65 is through both residential and downtown areas. The 22nd Street interchange of I-64 is within a mile north of the Corridor but is accessed through primarily residential areas. There are two routes to I-264. To the west, I-264 (Shawnee Expressway) is approximately 1.5 miles from the corridor and is also accessed through residential neighborhoods; it is a 4-mile stretch southbound on 18th Street/Dixie Highway to access I-264 at the Dixie Highway interchange.

The *Park Hill Industrial Corridor Implementation Strategy* included a recommendation for efficiently routing traffic to/from the corridor area to I-65 South that would “...follow Fourth Street south to Industry Road to Central Avenue, then follow Central Avenue east to Crittenden Drive and I-65 South” (EDAW/AECOM, 2009).

Airport Access: Louisville International Airport is roughly 7.5 miles from the central portion of the 18th Street Corridor at Hill and 18th. The nearest routes are by way of I-65 which is accessed via Chestnut Street or the I-264 Dixie Highway interchange.

Rail and Freight: Rail access may help bring investment to the area but also acts as an obstacle to traffic flow. Five national and regional rail companies own rail lines or have operating rights in the Corridor and the immediately surrounding area: Norfolk Southern, CSX Transportation, Paducah and Louisville Railway, Inc., Canadian Pacific, and Louisville & Indiana Railroad Company.

Bus Transit: Currently the Transit Authority of River City (TARC) has 77 bus stops in the 18th Street Corridor; 47 are on north-south routes and 30 are on east/west routes. See [Map 7](#). More than half (57 percent) of the north-south stops are on 18th Street; the majority of the other north-south stops are on 22nd Street/Humler Street and 23rd Street with the few remaining stops on Dr. W. J. Hodge Street. There are no TARC stops on 15th, 16th, and 17th streets. East-west routes run on four streets (Broadway, Oak, Dumesnil, and Hill) in the 18th Street Corridor. There are 12 stops (either east or west bound) on Broadway between 15th and 23rd streets and on Oak, Dumesnil, and Hill streets there are six bus stops on each street from 15th Street to 23rd Street. The UPS Shuttle West Louisville operates from west Louisville directly to the UPS Hub at the Louisville International Airport; the route runs along Broadway, the northern edge of the corridor. Bus stops in the corridor have no shelter or benches.

Bicycle routes: There is currently limited bicycle accessibility in the 18th Street Corridor. A bike lane runs on the eastern edge of the corridor down 15th Street but is not continuous. A bike lane also crosses the corridor east-west at Prentice Street/Garland Avenue. See [Map 8](#).

Pedestrian: In the *California Neighborhood Plan* written by the UofL 2011 Neighborhood Planning Studio class, the 18th Street study was described area as “[m]issing street signs, lights, street furniture, and broken, missing, and poorly designed sidewalks [that] discourage pedestrian travel.” The report went on to state that there are no buffers between sidewalks and heavily traveled streets.

Brownfields and Vacant/Underutilized Properties

Vacant Properties

The presence of vacant structures and properties can have strong implications for home values and neighborhood economic development. Using the Louisville Metro Department of Codes and Regulation's listing of Vacant Properties, made available via the city's website, there are 740 unique properties identified as vacant that are located within the 18th Street Corridor study area (bounded on the north and south by Broadway and Algonquin Parkway, and the east and west by 15th and 23rd streets). This figure excludes



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

properties listed more than once and includes two properties held by Louisville Metro Housing Authority and seven by the Metropolitan Sewer District (MSD). Nearly 19 percent of the 3,956 parcels in the 18th Street Corridor study area are vacant (B. Post, personal communication, April 3, 2014).

Excluding the Metro Louisville and MSD holdings, 71 property owners own two or more properties; the largest holders of vacant properties are Saint Stephen Baptist Church (20 properties) and Centennial Olivet Baptist Church (11 properties). Of the vacant property landowners who are owners of two or more vacant parcels, nine have properties that include one lot with a vacant structure adjacent to a vacant lot and one owner had a vacant structure with two adjoining vacant lots.

Louisville Metro uses three classifications for Vacant Properties:

1. Regular Vacant Structure
2. Regular Vacant Lot
3. Court Vacant Structure⁵

The majority (64 percent) of the vacant properties in the 18th Street corridor is classified as a Regular Vacant Structure; 32 percent are Regular Vacant Lots and 7 percent (50 properties) are Court Vacant Structures.

Properties within the 18th Street Corridor are represented by either Metro Council Districts 3, 4, or 6, with the bulk of the properties in the Corridor falling under the jurisdiction of Metro Council 6. The distribution of vacant properties in the 18th Street Corridor by Metro Council district is 79 percent in Metro Council District 6, 19 percent in Metro Council District 3, and 5 percent in Metro Council District 4.

⁵ A Court Vacant Structures is a vacant property that has been referred to the courts by Louisville Metro Codes and Regulations for being in noncompliance with the city's property maintenance codes. If the property owner fails to bring the property into compliance, or fails to appear in court, the vacant property is subject to foreclosure.

Louisville and Jefferson County Landbank Authority Incorporated

The Louisville and Jefferson County Landbank, Inc. owns 88 properties in the 18th Street Corridor; 28 of these properties are located directly on 18 Street/Dixie Highway. The Landbank Authority plays a significant role in the city's economic and redevelopment efforts by acquiring neglected, abandoned, distressed, and tax-delinquent properties; once owned and managed by the Landbank Authority, these properties can be sold to developers.

Though Landbank Authority parcels are destined for higher and more productive use, these lots (some with existing structures) are not distinguishable from vacant, abandoned lots.

Network for Community Change

During November and December 2010, representatives from Network for Community Change (NC3) canvassed the 18th Street/Dixie Highway properties within the 18th Street Corridor to determine which properties were vacant; they also included properties on Salem Avenue. NC3 identified 46 properties as vacant; 32 were classified as *vacant lot*; four as *vacant structure*; two each as either *commercial vacant*, *Louisville Metro Housing Authority, park, or house of worship*. The remaining two properties were unclassified. Of these 46 properties, 17 were unique, being neither listed on the Louisville Metro Codes and Regulations' vacant property list nor on the Landbank Authority's list of properties. However, 17 properties listed by NC3 as vacant lots are actually owned by the Landbank Authority, illustrating the misperception of these municipally-owned lots as vacant, non-contributing properties. See [Map 9](#).

Brownfields

Louisville Metro defines brownfields as *vacant or underutilized sites, where the threat of contamination has made redevelopment more complex e.g. abandoned manufacturing facilities, gas stations and dry cleaners* (Louisville Metro, 2013). This definition follows the 2001 U.S. EPA definition of any "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant." ([Public Law 107-118 Sec. 211: http://www.gpo.gov/fdsys/pkg/PLAW-107publ118/html/PLAW-107publ118.htm](http://www.gpo.gov/fdsys/pkg/PLAW-107publ118/html/PLAW-107publ118.htm)).

Louisville Metro has a strong history of supporting redevelopment of brownfields. Notable examples include Louisville Slugger Field, Home of the Innocents, and Papa John's Cardinal Stadium. Lesser known successes include providing assessments for 18 properties within the Park Hill Corridor and along 18th Street. That support made it possible for new companies to locate within the corridor. For example, under the current 2008/14 assessment grant, Louisville Metro assessed the PPG warehouse in Park Hill that led to the property purchase by a manufacturing company already located in the area who needed to expand. Because Louisville Metro has successfully won petroleum and hazardous substance assessment grants, as well as funding for a brownfields revolving loan from the U.S. EPA, there are resources for identifying a broad range of property types along the 18th Street Corridor that would be eligible for assessment and potential clean-up assistance. The lists of properties identified in this report through multiple processes can help prioritize sites based on type of potential contaminant (petroleum or hazardous substance), level of contamination, suggested and/or planned end-use, and community demand for new use.



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

Properties that might be considered brownfields within the 18th Street Corridor include sites such as former chemical plants (Black Leaf), abandoned gas stations or dry cleaners, empty lots where former use is uncertain or environmental conditions are unknown, and vacant residential buildings or lots that could have lead and asbestos on site. Since Louisville Metro has two assessment grants, one each for petroleum and hazardous materials, there needed to be an inventory of sites that might be eligible for these assessment funds. The 2009 environmental inventory of parcels in the Park Hill Corridor (See [Map 10.](#)) collected and characterized by AMEC includes the data relevant to the 18th St Corridor. The parcel data file contains incomplete data for almost

100 sites identified as having potential Hazardous Waste and for 152 sites identified as having potential Petroleum contamination. This means there are sites of concern marked on the map without corresponding information in the data file that permit accurate analysis⁶. Of the data with identifying information within the 18th Street Corridor study area:

- Eight sites were identified as having potential hazardous substances and eight sites were marked for potential petroleum.
- Four additional sites were identified as possible hazardous material sites by AMEC with one other site previously characterized as a hazardous materials site by the EPA.
- In addition, the AMEC inventory compiled 2012 underground storage tank (UST) data from the Commonwealth of Kentucky data base along with 2012 UST data from Environmental Data Resources (EDR), showing a total of 60 USTs at 17 sites in the study area.
- AMEC characterized five parcels as “under- utilized,” all on the edge of the study area.

AMEC characterized two sites with a combination of both hazardous and petroleum contamination, both at 18th Street and Broadway, both formerly part of the Philip Morris compound. 1700 W. Broadway is the future home of the new YMCA facility described under assets. 1800 W. Broadway across the street is held by Newbridge Development LLC. Suggestions from community members for future use of this site include full service grocery, retail/commercial, office, mix-use, and small business incubators. Press coverage about the potential location of a Walmart at this site drew criticism and protest from community members in January of 2014.

An additional site recorded on the AMEC inventory map but not identified in the data file is 1391 Dixie Highway; the parcel includes 1698 St. Louis Avenue recorded in the USD data. This site is the Black Leaf Chemical site discussed in further detail below. The AMEC map characterizes the site with two

⁶ AMEC 2009 Assessment Data is extracted directly from data collected by AMEC as part of the Park Hill Corridor Brownfield Inventory the company produced for Louisville Metro Government in 2009 with 2012 UST and EDR data. This spreadsheet contains only those properties relevant to the 18th Street Corridor. The entire data collection is available at <http://louisville.edu/cepm/projects/18th-st-park-hill-site-inventories.html>.

underground storage tanks and possible hazardous waste and petroleum waste based on AMEC's analysis of Historical Sanborn maps.

Future Uses Suggested Through Community Engagement

Continued community involvement is vital to the success of the 18th Street Corridor. To augment information about specific site histories, gather community input on desired future re-use, and share information about the brownfield redevelopment process, Louisville Metro and CEPM hosted three community meetings at the California Community Center, one each in February, March, and April of 2012. The primary purpose of each was to learn from community members about properties of concern and ideas for the future of the corridor. An additional goal of these meetings was to provide information about Louisville Metro's brownfield redevelopment program in an accessible format. The meetings provided an opportunity for residents, business owners and other community members to ask questions about contaminated property and discuss their vision for the 18th Street Corridor. Parcel maps were displayed for the attendees to provide critical input regarding properties of concern, historical information, and suggestions for future uses of the vacant and abandoned structures. An additional form of community input came from data collected and mapped by NC3. During the second public meeting, NC3 shared the results of their membership's detailed study of vacant properties in the area between Victory Park and California Park.

On February 9, 2012, Louisville Metro EGI and CEPM held an open community meeting to announce the effort and request help in getting the word out to others in the community; 33 stakeholders were in attendance. On March 15, 2012, with 40 people in attendance, participants identified properties of interest and concern in the corridor that they believed should be prioritized for clean up or redevelopment. For the purposes of this meeting, the 18th Street Corridor study area was broken up into four separate areas, each with its own map. Meeting participants had an opportunity to visit each map and identify those properties that were of interest to them for whatever reason and provide information about that property's ownership, past uses, and what they would like to see it used for in the future. Over 30 properties in the corridor were identified and commented on by participants at the meeting.



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

The following meeting on April 5, 2012, had 33 people in attendance. The meeting included an in depth discussion, along with questions and answers, about [Louisville Metro's Brownfield Program](#), particularly the differences between petroleum and hazardous substance sites. The list of properties with comments and suggestions from the previous meeting were shared. Meeting participants identified several additional properties of interest or concern in the study area and corrected information collected from the previous meeting. The detailed suggestions and information gathered from both of these meetings

regarding each site and with sites identified by community members who participated in NC3's inventory of vacant properties can be [downloaded](http://louisville.edu/cepm/projects/brownfields-and-safe-soil/18th-st-corridor-community-input) from the CEPM web site:
<http://louisville.edu/cepm/projects/brownfields-and-safe-soil/18th-st-corridor-community-input>.

The suggestions for specific reuses included the following:

- Beauty School
- Urban Lake
- Laundromat
- Urban Gardens and Community Gardens
- Art Center
- Outdoor Art Gallery
- Bowling Alley
- Recreational Activity Center
- Apartment Building
- Full Service Grocery Store
- Community Center for Youth Performance Arts
- Motorcycle parts store
- Financial Literacy Center
- Small Retail
- Public Garden/Park linked to upgraded bus stop
- Art Gallery
- Gas Station
- Bakery
- Urban Farm
- Office Park
- Storage Facility
- Urban Skate Park
- Athletic Fields
- After-School Program Center
- Food Pantry
- Antique Mall/Flea Market

This list shows that community members want to see, and are willing to support more commercial and retail, recreational amenities, green space, housing, and community services. Attendees at the public meetings voiced concerns over lack of public amenities, air quality in general, traffic, crime, health concerns related to unknown environmental exposures, and emissions from nearby industry.

Additional Sites of Community Concern

Former Black Leaf Chemical Site

The former Black Leaf Chemical site is located at 1391 Dixie Highway in the southern half of the 18th Street corridor. The property housed a series of industries which included the manufacture of pesticides such as DDT, Dieldrin, and Lindane into the 1970s. In 1981, EPA Region IV was notified that pesticides were handled at the site from 1955-1970. A Preliminary Assessment Report to the EPA was completed by Kentucky Division of Waste Management (KDWM) in 1987 that reported no hazardous conditions evident. It was purchased by Louisville Industrial Park, LLC in 1999. In 2009, a site inspection by KDWM found drums with unknown waste, some of which were leaking. As a result, KDWM removed 7 containers totaling 145 gallons of hazardous waste and 83 containers of Non-Hazardous waste.



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

Following the discovery and removal of these drums, in 2010, EPA began a site investigation to sample and test soils at the request of KDWM. Those soil tests revealed elevated levels of arsenic and polycyclic aromatic hydrocarbons (PAHs), both of which are probable human carcinogens, as well as lead. Follow-up testing of 69 residential yards that abut the property indicated the potential migration of these contaminants off the site into residential properties. It is not clear that all of the elevated levels of contamination found on the residential properties were a direct result of activities on the Black Leaf property. EPA and KDWM initiated soil removal at contaminated residential properties in the fall 2013. EPA addressed 10 properties that had clear chemical ties to Black Leaf while KDWM dedicated funds to clean up the additional properties abutting the site. Cleanup of the Black Leaf site itself is impacted by KDWM and EPA negotiations with Potentially Responsible Parties. The perceived delay in site

remediation has caused concern among residents as has the limitation of residential remediation to those properties that directly abut the site. Several public meetings were held, sponsored by different agencies and public officials over the course of 2012 and 2013. This included the EPA, KDWM, and the current Metro Councilman, David James.



Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

During the 18th Street Corridor Project public meetings, participants suggested future uses for the Black Leaf site that included an urban farm, community recreation fields, metal recycling, warehouse storage, and an assortment of mixed use.

In addition, a University of Kentucky Landscape

Architecture class used the site for a 2011 Fall Semester class project and the University of Louisville 2012 Master of Urban Planning Capstone Studio class tackled the site and the corridor with a focus on future uses for the Black Leaf site. The UofL Masters of Urban Planning graduate students were given the task of examining the 18th Street Corridor between W. Broadway and Algonquin Parkway and the Black Leaf site, all with a special emphasis on:

1. Land Use and Community Form
2. Mobility
3. Corridor Identity
4. Brownfield Site Redevelopment

The suggested future uses resulting from these student projects were very diverse and innovative and can be used as starting points for future discussions regarding the future end use of this complicated site. They included water parks, phyto-remediation demonstration projects, solar park, student housing, commercial/retail, public park/recreation, transit hub, orchard, mixed use, medical plaza, and a renewable energy research park. See [Figures 11–22](#) in Appendices as well as the Former Black Leaf Chemical Site [page](#) on CEPM’s website: <http://louisville.edu/cepm/former-black-leaf-chemical-site.html>.

Louisville Metro and the Commonwealth of Kentucky have an interest in facilitating the best and highest use of the former Black Leaf Chemical site. Public officials on the local and state level have an interest in negotiating for remediation that results in unrestricted re-use of the majority of the site to ensure that all options for reuse are viable. A high level cleanup also benefits the residents living near the site. Sites that have not had full cleanup and are zoned for industry only, such as the Rhodia site in Louisville, have been difficult to develop since they are in close proximity to residential areas. Finally, ongoing monitoring and deed restrictions required when sites are capped with waste managed on site have ongoing associated costs that should be taken into consideration. Complete remediation of the former Black Leaf Chemical site and the surrounding impacted properties ensures that redevelopment has the best opportunity for success.

Former Philip Morris Site, Southwest Corner of 18th and Broadway

As noted in the data compiled by AMEC in 2009, this site at 1800 W. Broadway, held by Newbridge Development LLC, was identified as having potential hazardous material and petroleum contamination. It was the subject of community protest and a report by the Kentucky Labor Institute which question the true economic value of the proposed Walmart for the site. The site has been vacant with previous structures demolished. Until 2012, part of the site was being considered for a new YMCA but Philip Morris donated the annex property to the south at 1700 W. Broadway to the YMCA. Both properties serve as a gateway into the corridor and have the potential to jumpstart redevelopment and community development. There are opportunities for both projects to address storm water management using green infrastructure technologies and sustainable landscape design that increase the sites’ environmental functional capacity. A simple example is an increase in trees that reduce urban heat island effects. Furthermore, the proposed

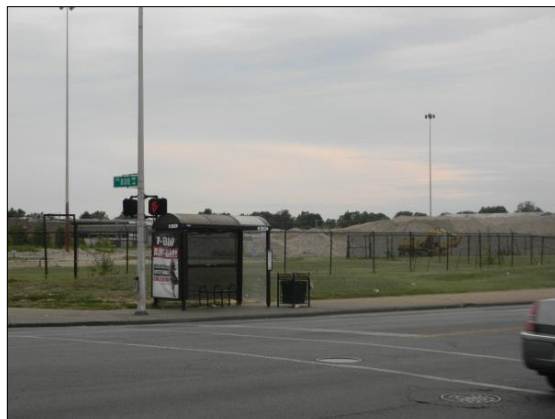


Photo courtesy University of Louisville Center for Environmental Policy and Management, 2012

Walmart site should also be designed to adhere to the land-use codes that enhance walkability and street scape amenities. Finally, since big box retail has a history of vacating properties after a certain period of time, the design of the building should include attention to adaptive reuse potential. Following these recommendations could address several current community concerns.

Recommendations to Support the 18th Street Corridor Brownfields Redevelopment

Louisville Metro has the capacity to encourage brownfield redevelopment and infill in general along the corridor. It should be noted that this corridor has a diversified history of land use; there is a mixture of industrial (both heavy and light), commercial/office/retail, and residential (all zoned to accommodate density). The 18th Street Corridor can be characterized as having three distinct sections of development (See [Map 11](#).) As efforts are formulated to address changes and improvements, focused attention to each section should support the existing character of each.

A description of the characteristics and general recommendations for redevelopment for each of the three sections of the 18th Street Corridor are as follows:

- The *northern section* of the 18th Street Corridor is bounded north and south by Broadway and Garland Avenue and includes the new YMCA and proposed Walmart sites as well as Brown-Forman. There are also several blocks of residential units. Redevelopment strategies should focus on retention and recruitment of neighborhood businesses and providing small business training and advice on how to sustain and prosper in an area that includes big box retail.
- The *central section* of the corridor (bounded on the north by Garland Avenue and south by Woodland and Wilson avenues) is primarily residential and central to the location of the local public elementary school, three Louisville Metro parks, and the neighborhood's community center. Redevelopment and economic strategies should place an emphasis on shoring up deteriorating infrastructure and implementing design recommendations to bolster the recruitment and retention of neighborhood-serving businesses and services along Dixie Highway/18th Street.
- The *southern section* of the 18th Street Corridor is bounded on the north by Woodland and Wilson avenues and on the south by Algonquin Parkway. This section's characteristics are split: west of Dixie Highway/18th Street the area is residential; on the east, with a compact residential section (eight blocks in a four-by-two configuration) that is surrounded on three sides by industrial land. Recommendations for this area should include linking available workforce with job creation and job-training programs. Infrastructure and design should include connecting the residential area with the employment centers. Business recruitment along Dixie Highway/ 18th Street should focus on neighborhood-serving businesses and services as well as those that would serve the industrial sector and their employees.

The following recommendations are drawn from practices that are being implemented in other parts of the city and in similar areas of other comparable cities.

Tell the 18th Street Corridor story to current and potential investors of diverse types by highlighting the past vibrant nature of the corridor, the current successes, and its potential future especially as it could connect to economic and community growth that tracks all the way to Fort Knox. Regional and state plans to address the growth along Dixie Highway towards Fort Knox are moving forward. Efforts that target this segment of 18th Street can be included in the larger corridor planning and could be used to leverage resources.

Coordinate Louisville Metro vacant properties and brownfields inventories and efforts to address the two. Vacant properties contribute additional complexities to revitalization efforts. Vacant properties discussed earlier in this report can be considered for inclusion in a brownfields inventory since residential and commercial sites may contain asbestos or lead in the building or soil. These could be considered in a hazardous substance assessment if other program criteria are also met.

Create a Special District along an appropriate segment of the corridor that focuses financial incentives for investment on 18th Street. Neither the Kentucky Economic Opportunity Zone nor the TIF area associated with the YUM! Arena reaches the corridor and TIF's may not be an effective financing tool for this area. A Special District could however help Louisville Metro work with current and future investors by packaging the following existing and as yet to be developed tools in current programs:

Brownfield Environmental Assessment Assistance and Revolving Loan Fund: With a few exceptions, Louisville Metro has intentionally focused its current Brownfield Assessment grants and Revolving Loan Fund on the Park Hill Corridor which includes the 18th Street Corridor. This can be continued and augmented by making certain this resource is well publicized. In addition to Louisville Metro's assessment grants, the Kentucky Department of Environmental Protection has succeeded in obtaining assessment grants that can be targeted for this corridor. The regional and state economic interest in prioritizing this corridor can be connected to the efforts focused on Dixie Highway improvements and development plans connecting Louisville to Fort Knox (See Dixie Highway Corridor Master Plan HNTB, March 2011).

Provide tax incentives to businesses expanding, opening, or relocating to the 18th Street Corridor. Partnering with the Kentucky Economic Development Finance Authority and Greater Louisville, Inc. (the city's Chamber of Commerce organization), Louisville Metro economic development officials can package creative tax incentives for specific types of employers needed in this area. Caution however needs to be made regarding potential employers who do not hire locally and do not contribute to local community needs in a significant manner.

Waive Fees in the District. Waive relevant fees associated with rezoning and development of parcels along the corridor to allow for commercial use, especially those with non-conforming uses. This can diminish the reluctance developers and business owners may have about the costs and difficulties associated with rezoning of parcels.

Package loan and grant programs. Prioritize the corridor for aesthetic and public infrastructure improvements by giving investors and current businesses priority consideration for low interest loan programs and grants such as the city's façade improvement program, dove-tailing on water infrastructure improvement efforts required under the MSD consent decree, and access improvements required to bring the city into compliance with the Americans with Disabilities Act.

Designate the Corridor a Green Corridor by encouraging green infrastructure projects. This could include things such as pervious pavements, solar powered street lights, green rooftops, urban gardens, storm water retention basins, grey water systems, tree planting and maintenance, and rain barrels. MSD's program to reduce stormwater runoff and address the combined sewer overflows can be expanded beyond the pilot projects already underway in the area. Green infrastructure on brownfield properties is often dismissed as too uncertain and costly but can be addressed with innovation and common sense.

Tools to assist are available at

http://louisville.edu/cepm/publications/practice-guides-1/PG32%20-%20Green%20Infrastructure%20on%20Brownfields.pdf/at_download/file and http://water.epa.gov/infrastructure/greeninfrastructure/upload/brownfield_infiltration_decision_tool.pdf.

Create a partnership between neighborhood organizations, the business community and Louisville Metro. In order for the revitalization of the 18th Street Corridor to be successful, it must be a collaborative effort between all stakeholders, which includes local businesses, residents and local and state government. All parties need to have a seat at the table, so that all interests are represented and there is a cohesive plan for advancing the corridor.

Recruit local banks/credit unions to patronize the area. There are no traditional banking centers along the 18th Street Corridor. Many of the residents along the corridor are under banked or have to travel more than a mile to reach a banking center. Non-traditional banking alternatives have higher fees and costs residents significantly more dollars that could be used for necessities and spent with local retailers. Reduce resident dependence on non-traditional banking alternatives. Encouraging local banking centers to locate along the corridor provides a walkable alternative to residents and business owners in the area.

Connect residents with financial education/grant/loan programs to increase home ownership along the corridor. Owners typically invest more in their homes and this is especially true for owner occupied homes. Increasing opportunities or homeownership within the study area increases private investment and improve the character of the neighborhood. The median household income of households surrounding the corridor is between \$15,833 and \$23,103, indicating that financial assistance may be necessary for many who have the desire to buy a home.

Target clean and light industry for infill opportunities. The 18th Street corridor has historically been a mixed use area that included industry. There are parcels and structures that are well equipped to house light industry not being use to their full capacity. These spaces provide opportunities to increase the commercial presence along the corridor that can generate revenue and increase investment.

Increase access to healthy food options. People need access to healthy food and fresh produce. West Louisville is grossly underserved when it comes to grocers. There are currently two stores that sell groceries on the corridor (Farm Boy Foodmart and Thorntons); the food selections at both are limited. Increase access to healthy food options by encouraging farmers markets, community gardens and local retailers to locate along the corridor.

Street Scape Improvements

Both the UofL Capstone 2012 project and the 2011 Neighborhood Planning Studio course include a detailed set of suggestions for street scape improvements. They are highlighted here.

The 18th Street Corridor is a heavily traveled thoroughfare and has the potential to be a successful and energetic commercial corridor if improvements are made to make it more aesthetically appealing to investors and the public. In addition to attending to the corridor's neglected appearance by addressing vacant and underutilized properties, specific enhancements to the streetscape are necessary to create destination points. Specific suggestions include:

1. *Create gateways at Broadway and Algonquin Parkway.* Creating gateways at each entrance gives a visual cue to those entering the 18th Street Corridor at either Broadway or at Algonquin Parkway. A gateway should complement the area it represents in both design and size and can be accomplished with the addition of something as simple as a banner or a piece of public art specific to the corridor.
2. *Install raised planted median at 18th and Algonquin.* Replacing the current median at this intersection with a raised planted strip can improve the aesthetics of the area while also providing a means of reducing storm water runoff for this wide section of impermeable paved along the corridor. A raised median also offers pedestrians a place of safety when crossing at this intersection.
3. *Limit on-street parking along 18th Street between Garland Ave and West Ormsby St.* The allowance of on-street parking along this section of the corridor creates several problems. It creates a safety issue as the right-of-way is too narrow for parking on both sides of the street. Consequently, cars are parked up on the curb causing disrepair to the walkway. Allowing cars to be parked on both sides of the street narrows the driving lanes, thus creating a driving hazard. On-street parking in the section of the corridor also creates congestion issues as the TARC travel route is impeded and traffic is slowed as drivers pile up behind buses along this route. Cars parked on the curbs also eliminate the opportunity for the inclusion of bike lanes along this designated bike pathway.
4. *Include raised medians at wide intersections along the corridor.* Raised medians serve as traffic calming devices forcing drivers to slow down as they pass them. These medians also allow pedestrians a safety zone as they cross wide streets along the corridor.
5. *Create bus stop cutouts.* There are sections along the corridor where traffic congestion occurs behind stopped public buses due to the lack of space for cars to safely navigate around the bus. Creating recessed areas in strategic locations reduces this problem and diminishes the likelihood of accidents.
6. *Improve Streetscape by planting trees recommended for urban environments (Cornell University, 2014); suggested species include American hornbeam, American yellowwood, Pawpaw, Sweetbay magnolia, Ginkgo, and Swamp white oak.* Including trees and trees lawns along the walkways improves aesthetics by softening the appearance to that typical commercial and residential area and making it less harsh and industrial in appearance.



Photos courtesy University of Louisville Center for Environmental Policy and Management, 2012

Trees planted along the street also increase safety as they serve as a

buffer between vehicular and pedestrian traffic. Additionally, trees and greenery can improve air quality.

7. *Repair pedestrian pathways.* Sidewalks that are obstructed or in disrepair are a safety hazard to pedestrians, especially those using wheelchairs, walkers, or strollers who are forced to use the street as a travel path. The repair of crumbling and missing sidewalks and street curbs improves the appearance of an area, while also increasing pedestrian safety and brings the corridor into American Disability Act (ADA) compliance.
8. *Ensure that all infrastructure meets ADA compliance.* The safety accessibility of all users must be taken into account, even those with disabilities, when revitalizing the 18th Street Corridor. All intersections should be equipped with ramps to allow access to users with disabilities. Pedestrian controlled signals should also meet ADA regulations for accessibility for all disabilities, including the visual and hearing impaired. Pathways should be unobstructed and free from defect.
9. *Increase bicycle safety with designated bicycle lanes.* The 18th Street Corridor has the potential to become a highly biked area with many people who work and live along the corridor relying on bicycles as their main means of transportation and because the Corridor is connected to the Louisville Loop Bike Trailway at Algonquin Parkway. There are however, no marked bicycle lanes along the corridor to give bicyclists a designated travel space, serve as a reminder to motorist that this path is used by bicyclists, and increase the safety of all users.
10. *Provide bicycle racks at destination points.* Providing bicycle racks at certain destination points can encourage ridership, reduce carbon footprint of the corridor, promote physical activity, and reduce need for parking.
11. *Improve appearance of railroad overpass at 18th Street and Standard Avenue.* Improving the appearance of this railroad overpass contributes to the aesthetic value of corridor. It can also serve as a space for the display of public art or a branding opportunity for the corridor.
12. *Implement Signage and Way finding Program for the corridor.* Including signage and banners displays the identity of the corridor, emphasizing the history and culture of the area. Signage can also be used as a means of way finding, providing directional information to those utilizing 18th Street, both through pedestrian and vehicular travel.
13. *Create street signs and banners specific to the 18th Street Corridor.* Utilizing signage and art that is specific to the 18th Street Corridor unifies this area with the surrounding neighborhoods while also strengthening the identity of the corridor itself. A prescribed signage program also aligns the corridor with greater Louisville Metro, as other neighborhoods in the city have used this method to call attention to their own uniqueness while celebrating being a part of the greater whole.
14. *Include street furniture along the corridor.* Providing street furniture such as benches adds to the idea that the 18th Street Corridor is a walkable community, allowing pedestrians an



Photos courtesy University of Louisville Center for Environmental Policy and Management, 2012

opportunity to pause and experience the area. A uniform program of street furniture, including benches, trash receptacles and other permanent pieces, can improve the appearance of the corridor and creates an atmosphere of this being a people friendly neighborhood.

Land Use and Community Form

1. *Ensure that new construction, developments, and redevelopments are in compliance with form district regulations.* Form district regulations create a sense of uniformity within an area, while still allowing business owners and developers the flexibility to create an individual sense of identity for their space. When these regulations are not followed there is a lack of cohesion that detracts from the aesthetics of the corridor which can devalue any improvements made. The formation of neighborhood and business association task forces helps in not only identifying businesses and institutions in violation of land use and zoning codes and regulations, but also creating educational opportunities for development best practices; enlisting both UofL Master of Urban Planning and UK Landscape Architecture students to identify problem areas and offer solutions can also be beneficial.
2. *Ensure form district codes and regulations are in compliance in regard to commercial signage.* Though businesses and institutions depend on signs as an integral form of marketing, neighborhoods and business districts are often characterized by the types of signs within their areas. This includes the size, height, and placement of signs, and in some cases even materials. Enforcing current sign ordinances benefits the character of 18th Street, acting as a unifying device. An inventory of current signs along the corridor can be used as a measure of how many signs are out of compliance. Only then can a strategy be developed for replacement. This would include design assistance and financial strategies or incentives to replace or update signs.
3. *Inventory zoning on parcels with nonconforming uses.* Several properties along the 18th Street Corridor that are zoned for residential use are in fact being used in a commercial capacity, which is a nonconforming use. Though it is likely that the commercial use on these residentially-zoned properties have been *grandfathered*, it is recommended that the city explore avenues on how these parcels might be rezoned to commercial zoning (C-1 or C-2). Rezoning could minimize conflicts between neighboring properties and could be a tool to encourage commercial businesses to locate along the corridor. A strategy for rezoning would be to waive the \$100 application fee.
4. *Recruit green industry.* The 18th Street Corridor is a mix-use area with a history that includes manufacturing and industries that have been known to have a negative environmental impact on air, stormwater runoff, and soil contamination. Targeting *green* and *clean* industry to locate within the 18th Street Corridor not only contributes to the healthy environment of the area but also builds a sense of trust with the residents.

Mobility

What follows are recommendations compiled by CEPM staff and the UofL 2012 Capstone class; some of these recommendations were also made by ENTRAN in their *Park Hill Industrial Corridor Short-term Transportation Planning Study*:

1. *Promote connectivity.* The limited number of east/west direct routes contributes to the challenge for residents and businesses in the 18th Street Corridor to easily access surrounding neighborhoods, primary transportation routes (airport, interstates and river), major

employment centers (UPS Worldport and Jefferson Riverport International), institutions of higher education (University of Louisville, Jefferson Community Technical College).

2. *At the intersection of 18th and Hill streets, change the right-of-way to two driving lanes with one turn lane.* Creating a turn lane at this intersection decreases traffic congestion as motorists wait to make a left turn. It also decreases the likelihood of traffic accidents as motorists attempt to maneuver around turning cars.
3. *Limit on-street parking along 18th Street from Garland Avenue to Ormsby Street.* Allowing parking on both sides of the road along this section of 18th Street disrupts and impedes mobility. This section of 18th Street appears to be too narrow to accommodate both parked vehicles and two-way traffic; this can also lead to traffic jams due to the inability of drivers to maneuver vehicles around stopped busses or delivery vehicles. Vehicles have been parked on the curb and sidewalk which then damages infrastructure. Vehicles parked on the curbs also eliminate the opportunity for the inclusion of bike lanes along this designated bike pathway.
4. *Include raised medians at wide intersections along the corridor.* Raised medians serve as traffic calming devices forcing drivers to slow down as they maneuver past them and also allow pedestrians a safety zone when crossing wide streets along the corridor.
5. *Repair pedestrian pathways.* Sidewalks that are obstructed or in disrepair are a safety hazard to pedestrians. This is especially true for those using wheelchairs, walkers, or strollers who are forced to use the street as a travel path. Uneven or broken walking paths can also be a tripping hazard. The repair of crumbling and missing sidewalks and street curbs improves the appearance of an area, while also increasing pedestrian safety and brings the corridor into American Disabilities Act compliance⁷. LMEGI should seek out redevelopment opportunities and funding that would include streetscape improvements.
6. *Ensure that all infrastructure meets ADA compliance.* The safety accessibility of all users must be taken into account, especially those with disabilities, when revitalizing the 18th Street Corridor. All intersections should be equipped with ramps to allow access to users with disabilities. Pedestrian controlled signals should also meet ADA regulations for accessibility for all disabilities, including the visual and hearing impaired. Pathways should be unobstructed and free from defect.
7. *Improve public transportation by including strategically placed bus shelters.* In the 18th Street Corridor study area, 33 percent of all households have no vehicle available; an additional 43 percent have only one car available. For many residents, TARC may be the only means of transportation. Enhancing bus stops is an equity issue; upgrading these stops to include shelters and benches allow for a more comfortable wait protecting riders from the elements. Shelters provide opportunities for way-finding posts and public art displays.
8. *Create bus stop cutouts.* There are sections along the corridor where traffic congestion occurs behind transit buses because there is not enough space for vehicles to safely pass. Creating recessed areas in strategic locations diminishes the likelihood of accidents caused by passing motorist encroaching into the opposite lane of traffic.
9. *Increase bicycle safety with designated bike lanes.* Louisville Metro has a goal of making this a more bike-friendly city; safety of bicyclists is paramount to making this a reality (Louisville Metro Public Works and Assets, 2010). The 18th Street Corridor is a highly biked area, with many of the people who work and live along the corridor relying on bicycles as their main means of transportation. Although the 18th Street Corridor connects to the Louisville Loop Bike Trailway at

⁷ Prior to 2010, adjacent property owners were responsible for sidewalk and curb repairs; since then responsibility for sidewalk maintenance has been shifted to Louisville Metro Department of Public Works. This mandate is unfunded however and citizen reports alone constitute for approximately \$3 million in repairs (D. Gowen, personal communication, April 3, 2014).

Algonquin Parkway, no marked bike lanes exist along the corridor. Marked bike lanes give bicyclists a designated travel space, serve as a reminder to motorists that this path is used by bicyclists, and increase the safety of all users.

10. *Provide bike racks at destination points.* Providing bike racks at certain destination points encourages ridership, reduces the carbon footprint of the corridor, promotes physical activity and reduces need for parking. Placing bike racks at high traffic locations also assists current bicyclists and local law enforcement by lowering crime rates associated with bike theft.

Conclusions

The West Louisville Competitive Assessment and Strategy Project compiled by Initiative for a Competitive Inner City (ICIC) reported that “negative perception” is one of the key barriers to attracting businesses to locate in the area (2001). Furthermore, community need in this area is high. It is an area of racially concentrated poverty, high unemployment, higher than median rents, and poor public transportation options. There are however many community assets inventoried in this report that mitigate some of those obstacles and are potential resources upon which to build future assets. Attention to those negative perceptions is of utmost importance, and can be done by growing and supporting those who are already living and working in this area.

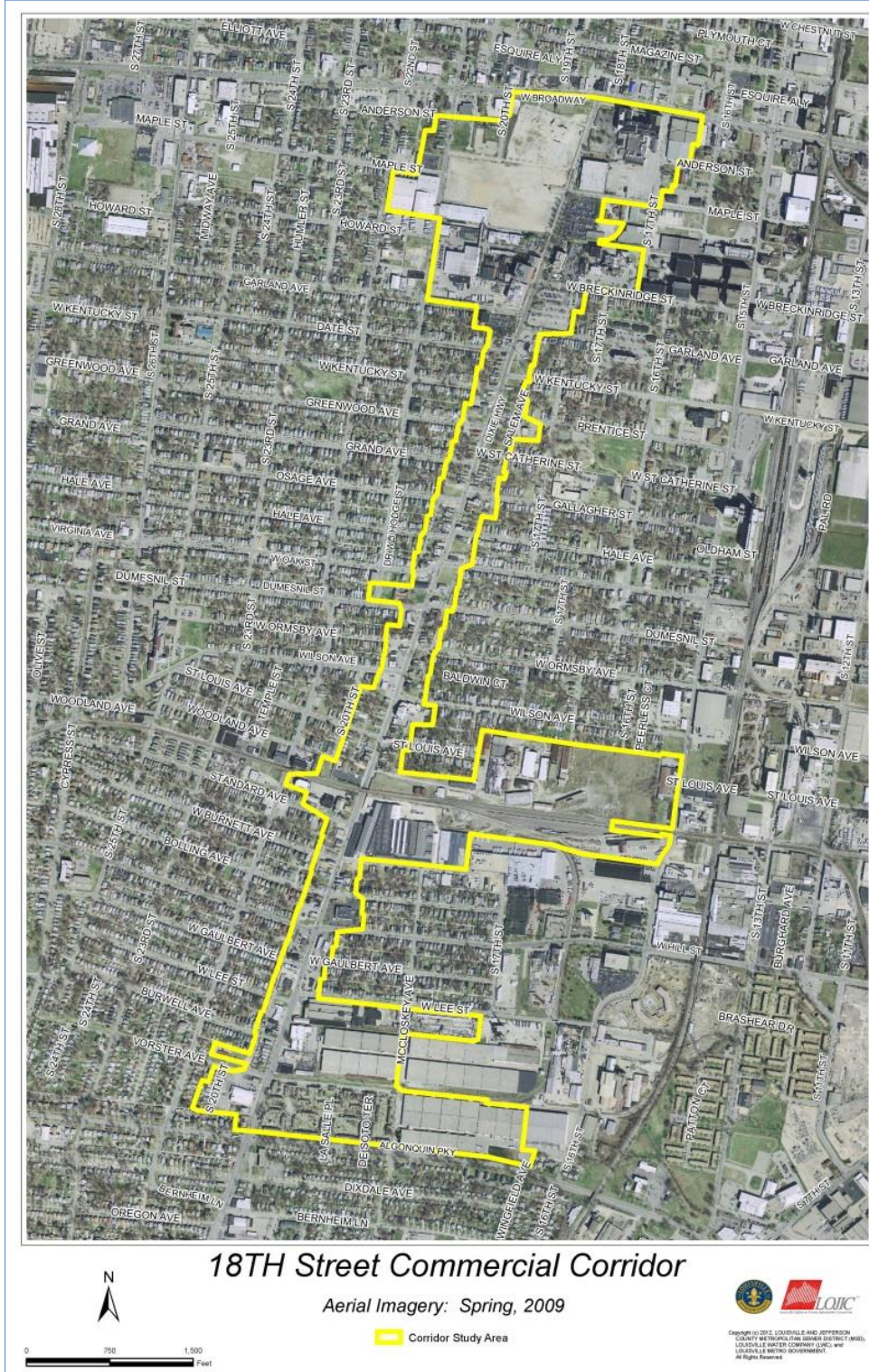
There is an abundance of land and built structures available along the corridor to accommodate commercial and light industrial businesses looking to move or expand their operations. However, poor maintenance of empty structures and parcels result in decreased interest and an increase in out-migration of both businesses and residents. Businesses simply do not want to locate in an area appearing blighted and residents do not want to live in an area that is neglected and underserved commercially. Continued public investment within the 18th Street Corridor is necessary to address vacancy rates and attract the necessary private investment. The Louisville Metro Brownfields Program, as well as the evolving vacant properties initiatives, has the capacity to strategically focus integrated public investment in the corridor. The recommendations made in this report address aesthetics, infrastructure, connectivity, vacancy, brownfields, and land-use. Many incorporate existing practice and can therefore easily be implemented.

Transforming the 18th Street Corridor into an economically sustainable, livable community requires a strategic plan and policies that encourage and support businesses to locate along the corridor, serve the residential population and support the existing commercial community. This report provides a summary of stated community desires and visions for future development as well as comprehensive recommendations that could serve as an initial road map for future planning initiatives. However, continued community engagement and full consideration of what community members want as well as a more concrete analysis of what the area can reasonably support are necessary components of any future formal plan.

APPENDICES

Maps

Map 1 – 18th Street Commercial Corridor



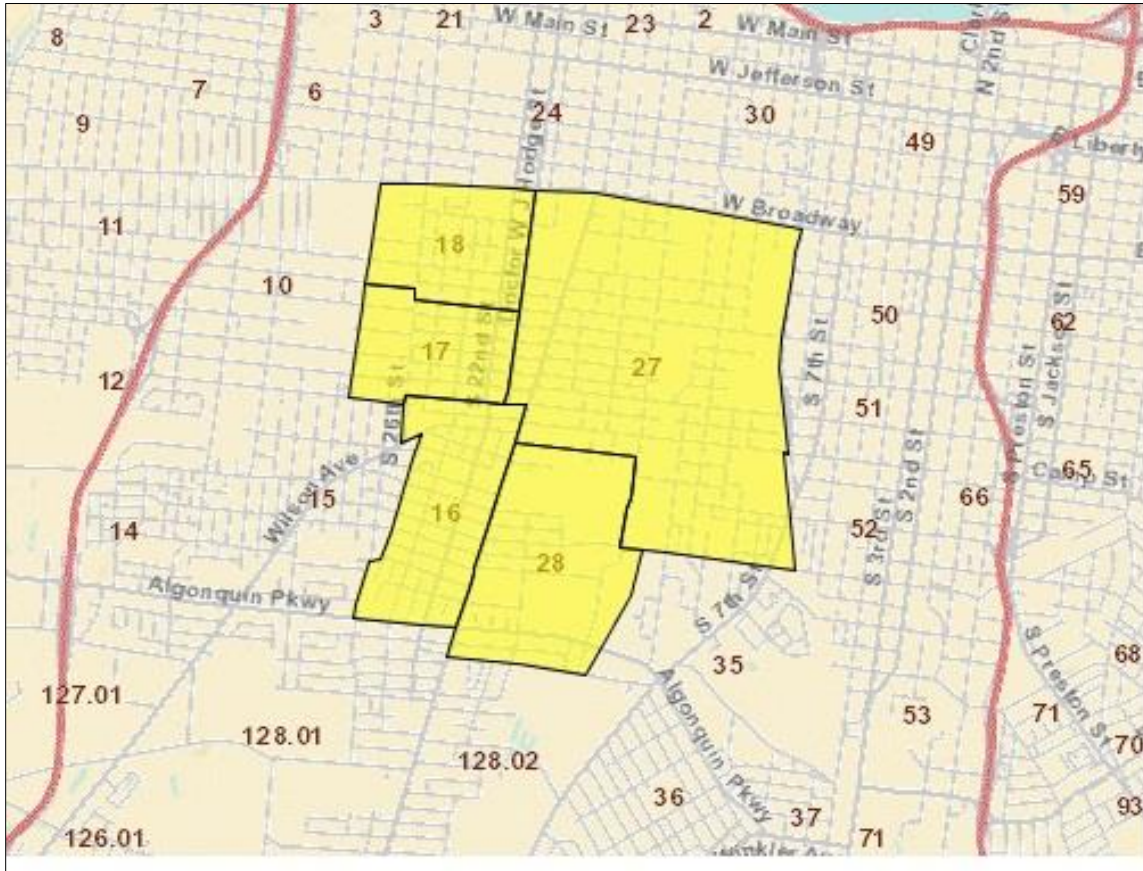
Map courtesy Louisville Metro Department of Economic Growth and Innovations

Map 2 – 18th Street Corridor Study Area



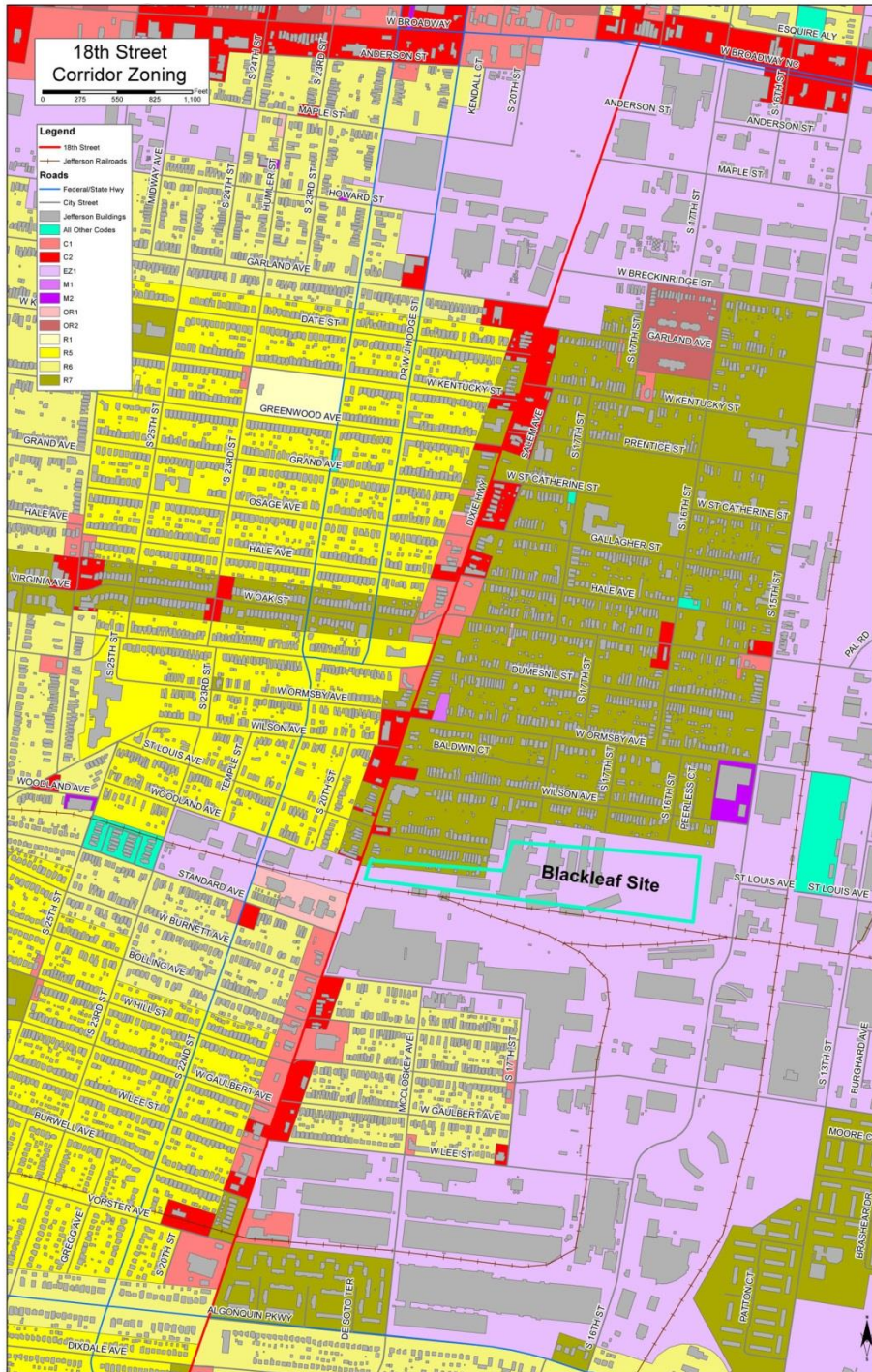
Source: Louisville/Jefferson County Information Consortium (LOJIC), 2013

Map 3 – 18th Street Corridor Demographic Study Area



U.S. Census, 2008-2012 American Community Survey 5-year estimates

Map 4 – 18th Street Corridor Zoning Map



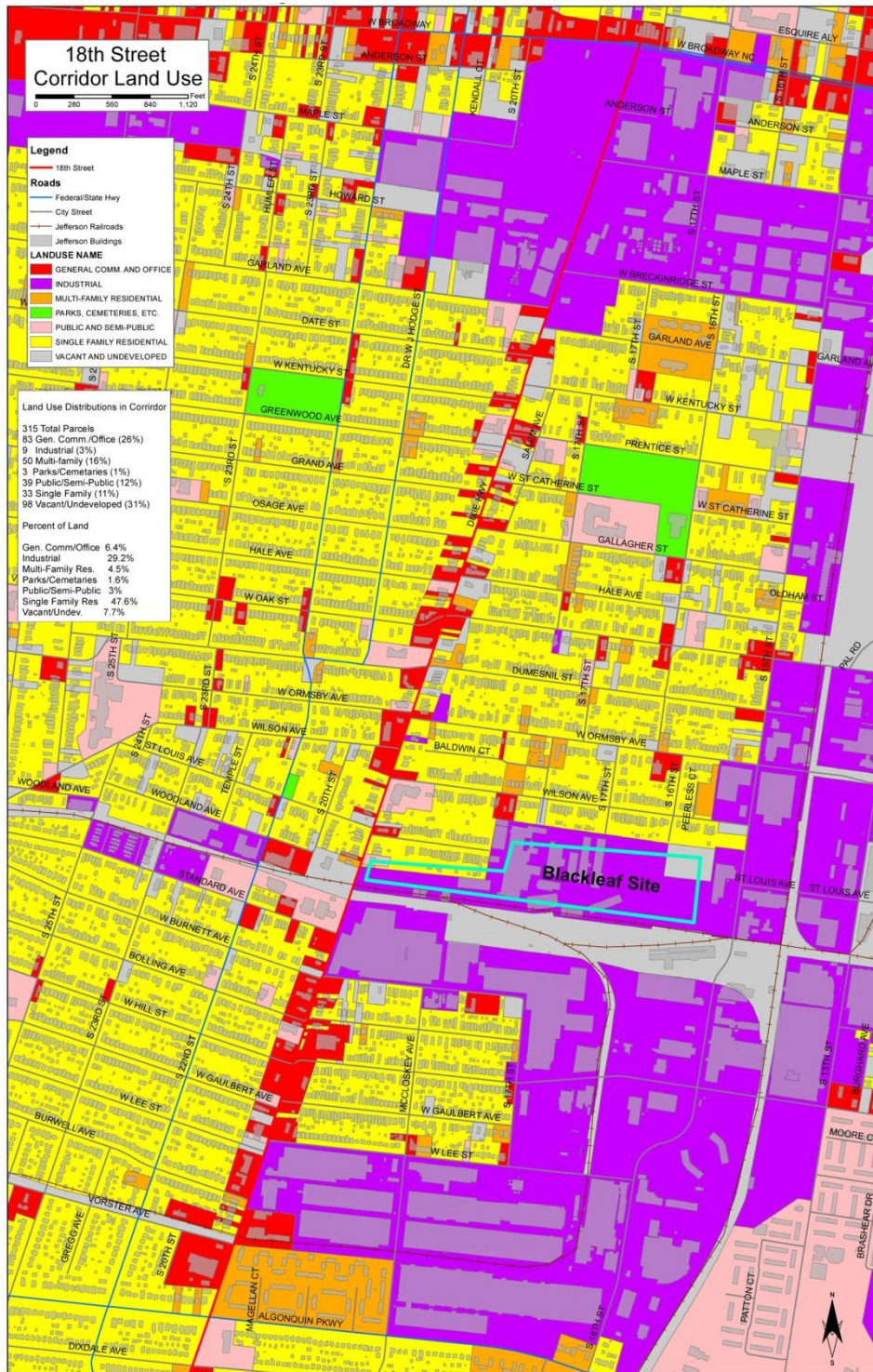
Source courtesy of University of Louisville Department of Urban and Public Affairs, Master of Urban Planning Capstone, 2012

Map 5 – 18th Street Corridor Form District Map



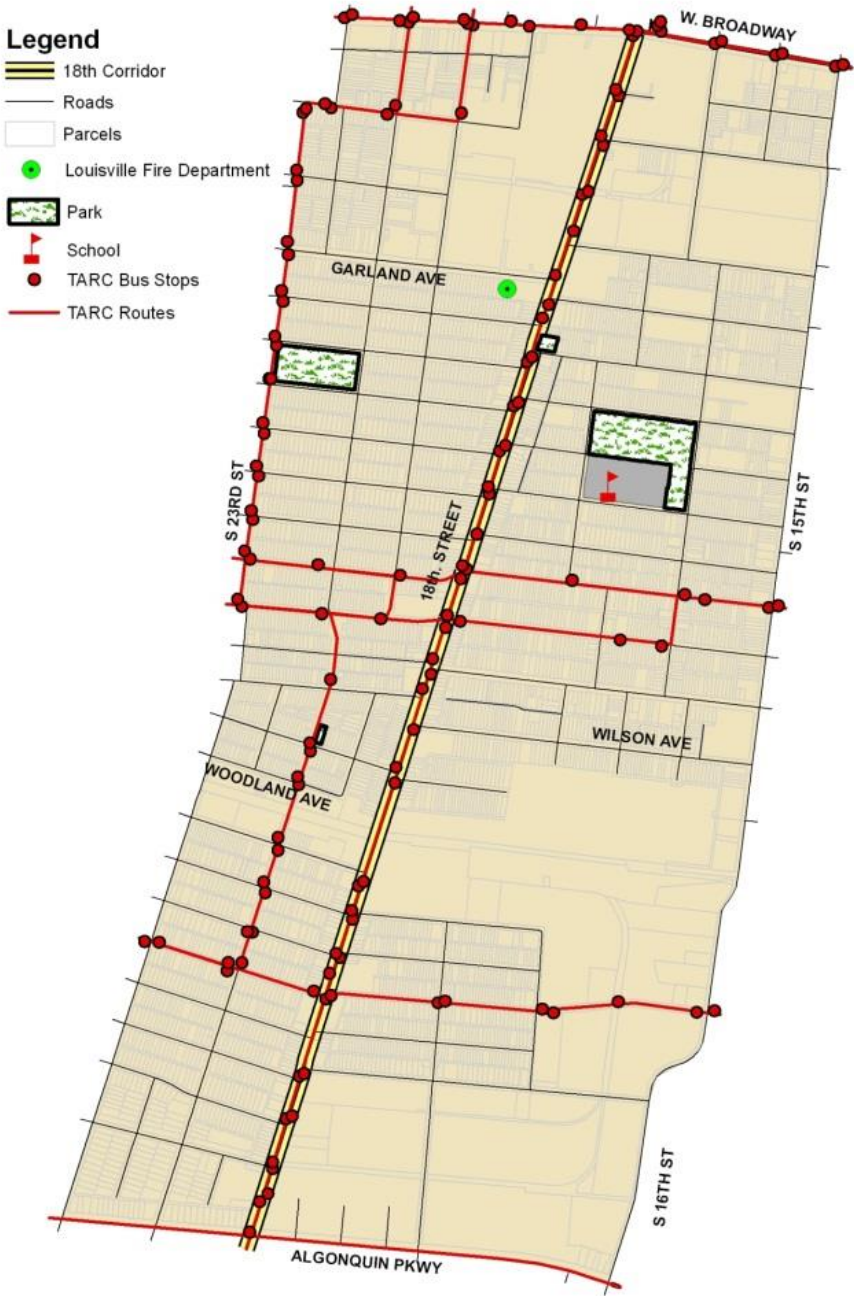
Source courtesy of University of Louisville Department of Urban and Public Affairs, Master of Urban Planning Capstone, 2012

Map 6 – 18th Street Corridor Land Use Map



Source courtesy of University of Louisville Department of Urban and Public Affairs, Master of Urban Planning Capstone, 2012

Map 7 — TARC Routes within the 18th Street Corridor



Source: LOJIC, 2013

Map 8 – Bicycle Routes within the 18th Street Corridor



Source: LOJIC, 2013

Map 9 – Observation Walks Property Data



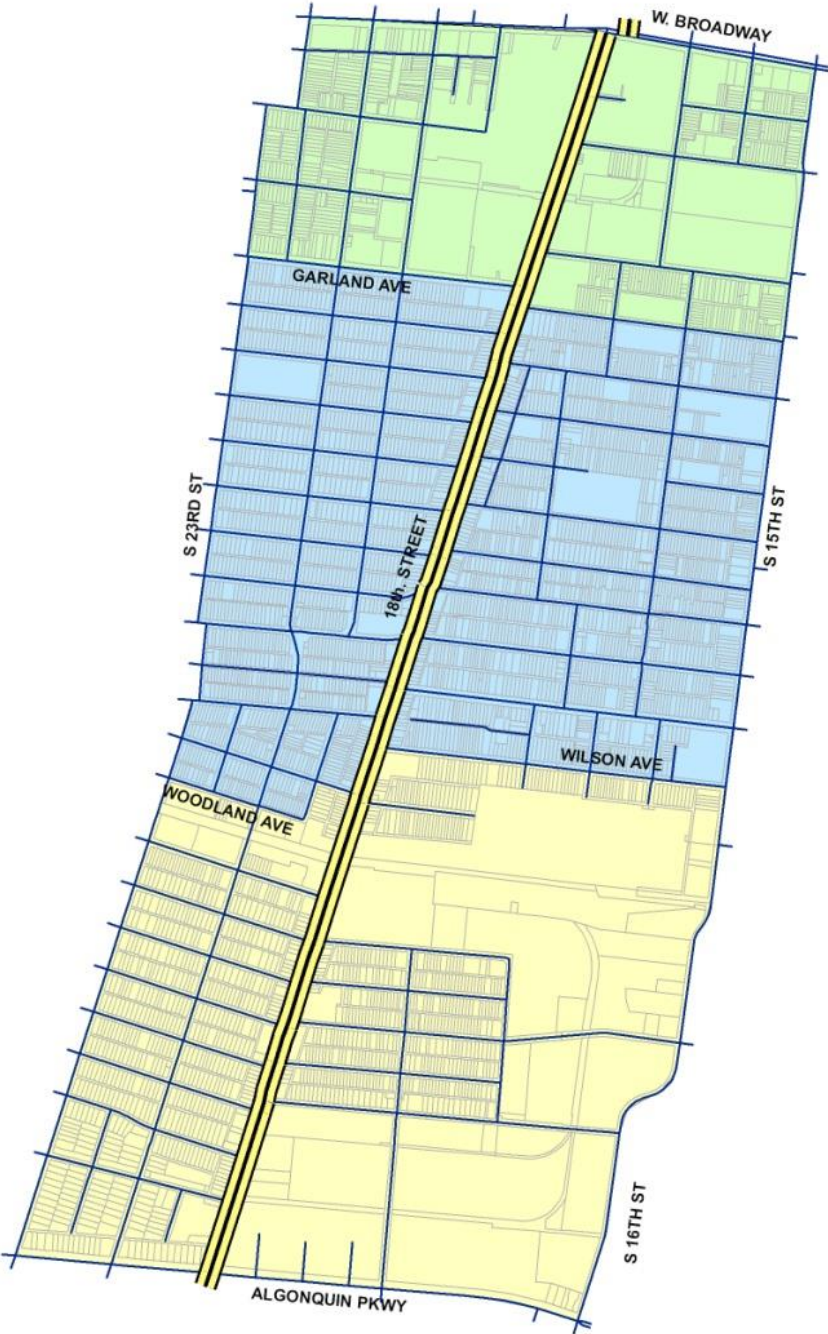
Source: Network for Community Change (NC3), 2010

Map 10 – Park Hill Environmental Site Inventory



Source: AMEC, 2009

Map 11 –18th Street Corridor Study Area by Sections




Source: Louisville/Jefferson County Information Consortium (LOJIC), 2013

University of Kentucky Landscape Architecture Student Black Leaf Site Plans - Fall 2011

Figure 11 – The National Center for Phytoremediation Research, Practice, and Implementation by Justin Menke

Board 1 of 2



**THE NATIONAL CENTER FOR PHYTOREMEDIATION
RESEARCH, PRACTICE, AND IMPLEMENTATION**

...a modern facility on the cutting edge of phytoremediation technology, leading by example, for a more efficient, responsible, natural, and cost effective way to clean polluted and otherwise contaminated soils worldwide

board 1 / 2

**IN ASSOCIATION WITH THE
ENVIRONMENTAL PROTECTION AGENCY
AND THE UNIVERSITY OF LOUISVILLE**

**JUSTIN MENKE
L A 8 4 2
2/20/2012**

Program
National Center for Phytoremediation Research and Implementation

- Research Center: labs, offices, and public education; a few retail shops/cafes
- Test Plots: research different plants effectiveness towards different contaminants
- Remediation Plots: used to test plants while actually cleaning the soil on site
- Saleable Plots: nursery for sale and implementation throughout city and country
- Greenhouse: nursery and research outside of the growing season
- Test Pools: research for cleaning w water contaminants
- Green Practices: swales, bioretention, low maintenance landscaping, etc
- Involvement with University of Louisville


Phytoremediation
Using plants to naturally extract contaminants from soil

- cleans the soil on site
- no excavation cost
- no soil needs to be hauled away
- no replacement soil needs to be brought in
- considerably less expensive (100x-1000x)

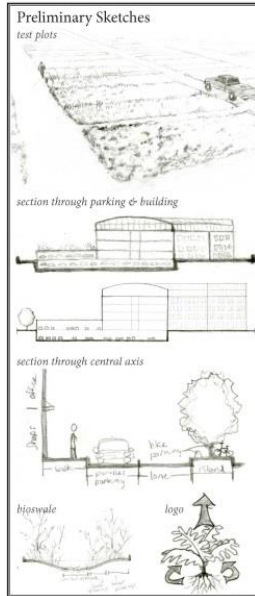
10 Step Plan for Blackleaf Site

1. Materials Salvage
2. Demolition
3. Cleanup and Proper Disposal
4. Re-grading
5. Silt fences and other appropriate barriers
6. Initial phytoremediation plots planted
7. Construction of facilities and infrastructure
8. Remaining phytoremediation plots planted
9. Test to ensure site is safe to open
10. Open for operation

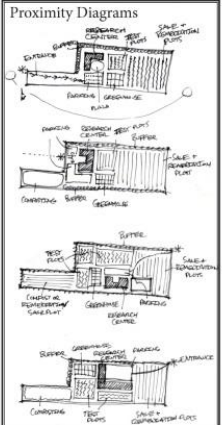
Analysis Diagram



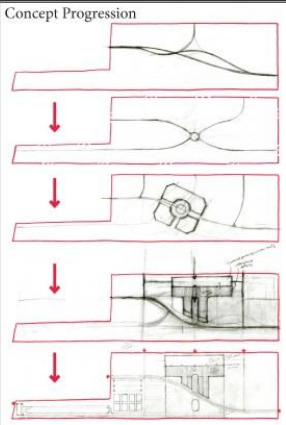
Preliminary Sketches
test plots



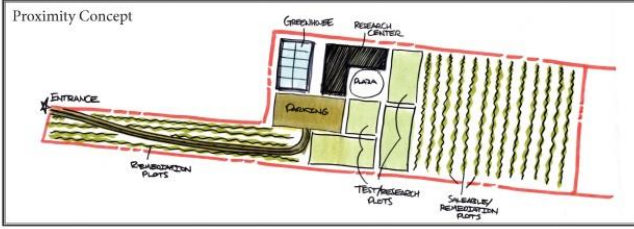
Proximity Diagrams



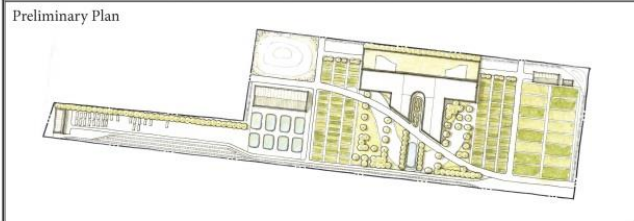
Concept Progression



Proximity Concept



Preliminary Plan



Phytoremediation References:

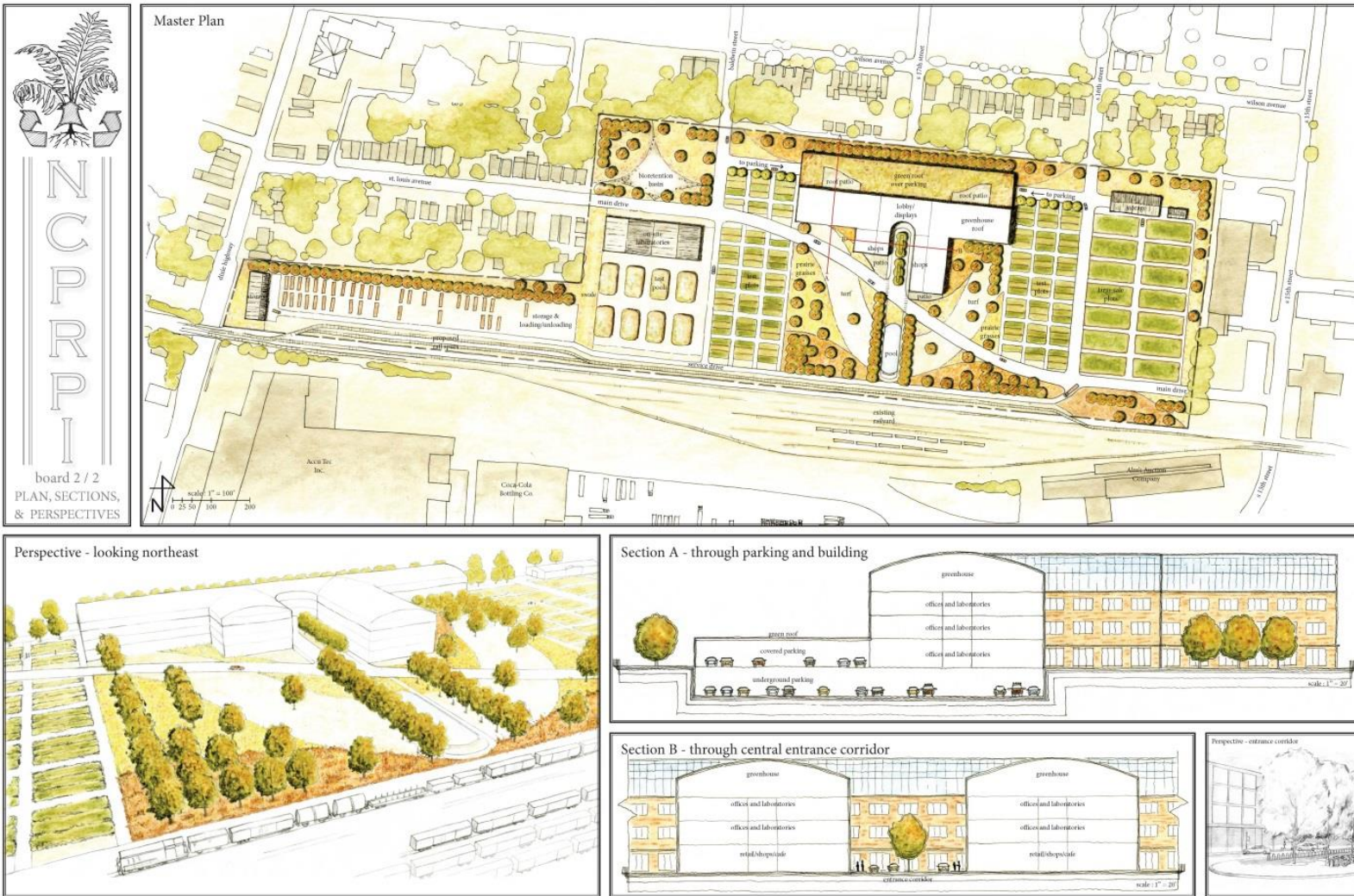
Black, H. 1995. Absorbing possibilities: phytoremediation. *Environmental Health Perspectives* 103: 1106-1108.

Bolick, J.A., D.J. Hutcher, and Y. Cho. 2009. Phytoremediation of lead with green onions (*Allium fistulosum*) and uptake of arsenic compounds by moonlight ferns (*Pteris cretica* cv *Majun*). *Microchemical journal*. 91:6-8.

Chandru, Q., et al. 2002. Prospects and limitations of phytoremediation for the removal of persistent pesticides in the environment. *ESPR - Environ Sci & Pollut Res*. 9:4-17.

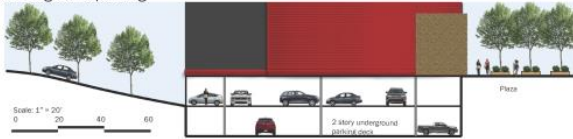
Chen, T. B. and C.Y. Wei. 2006. Arsenic accumulation by two brake ferns growing on an arsenic mine and their potential in phytoremediation. *Chemosphere* 63:1048-1053.

Seth, C.S., V. Misra, R.R. Singh, and I. Zolfa. 2011. EDTA-enhanced lead phytoremediation in sunflower (*Helianthus annuus* L.) hydroponic culture. *Plant Soil* 347:231-242.





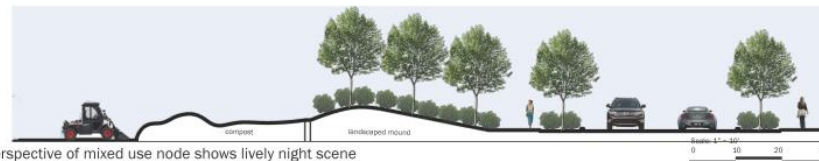
Section A - This shows the arrangement of the cinema from the plaza to the underground parking



Perspective of Cinema at the end of the mixed use promenade



Section B - This illustrates the panhandle of the site, showing landscaped mound which blocks view of composting area.



Perspective of mixed use node shows lively night scene



Concept Statement

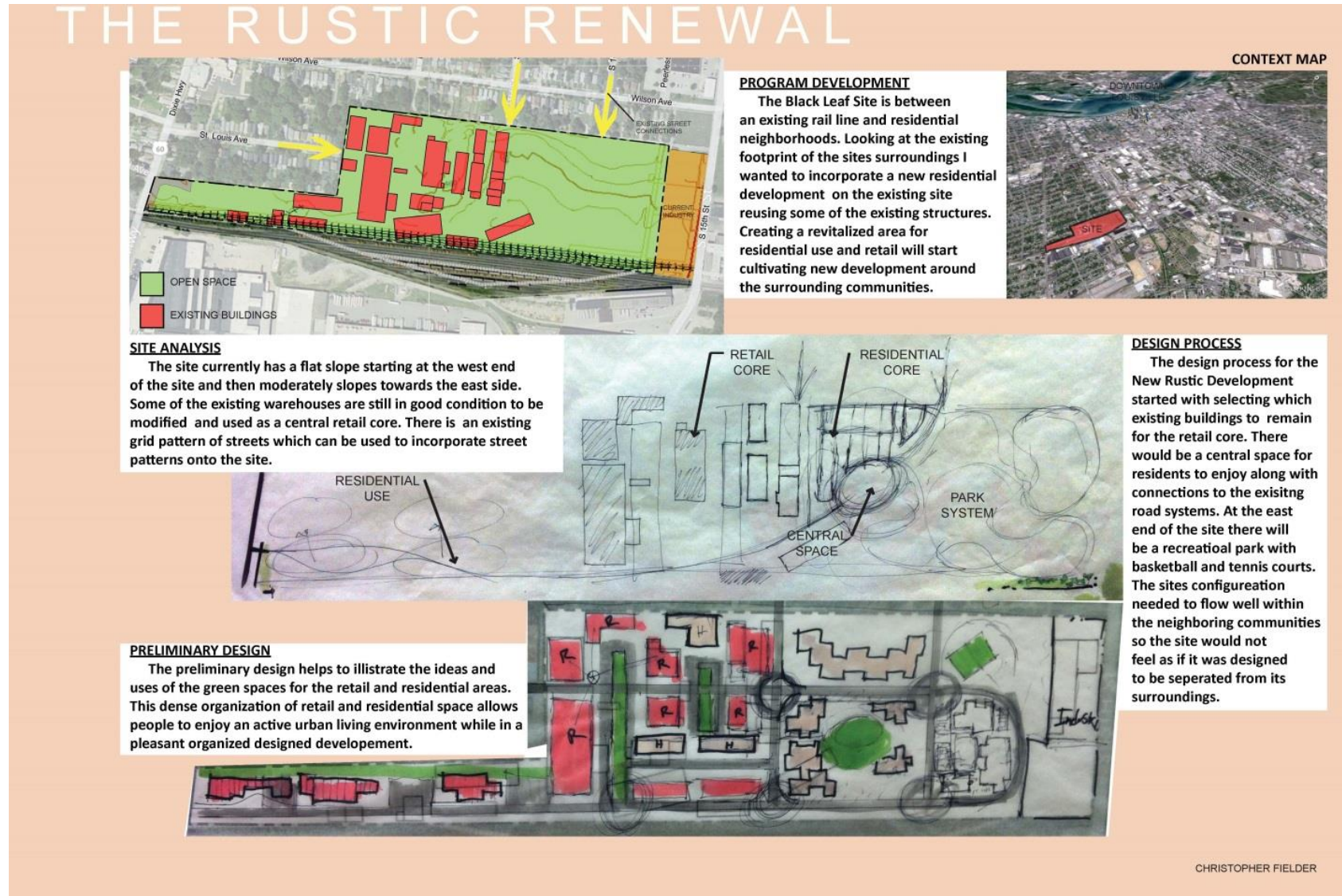
The design concept for New Leaf Commons is based on a broken grid, creating public spaces at a pedestrian scale, creating picturesque experiences. Included are water features, retail, and dining spaces, vertical farming agricultural center, and the utilization of the existing railroad infrastructure. The ample public spaces create an exciting, telling, pedestrian experience, and allow for a variety of activities such as outdoor dining, events, and informal performances. New Leaf Commons will be a comfortable patchwork of contrasting styles that balances great variety with smooth transitions to create a surprising and joyful center to promote the revitalization of this Louisville neighborhood. Signature elements such as the mixed use node, and agricultural farming center, will revitalize the surrounding community, placing New Leaf Commons exceptionally above other projects anywhere in the region.

new leaf commons

Thomas T. Tague
10.042
Spring 2012

Figure 13 – The Rustic Renewal by Christopher Fielder.

Board 1 of 2



THE RUSTIC RENEWAL



Figure 14 – Park Hill Commons by Jack Simmons

Board 1 of 2

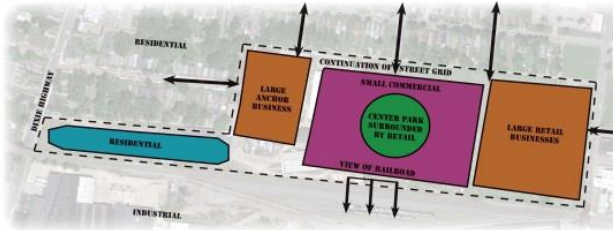
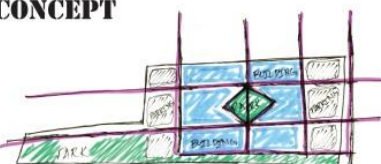


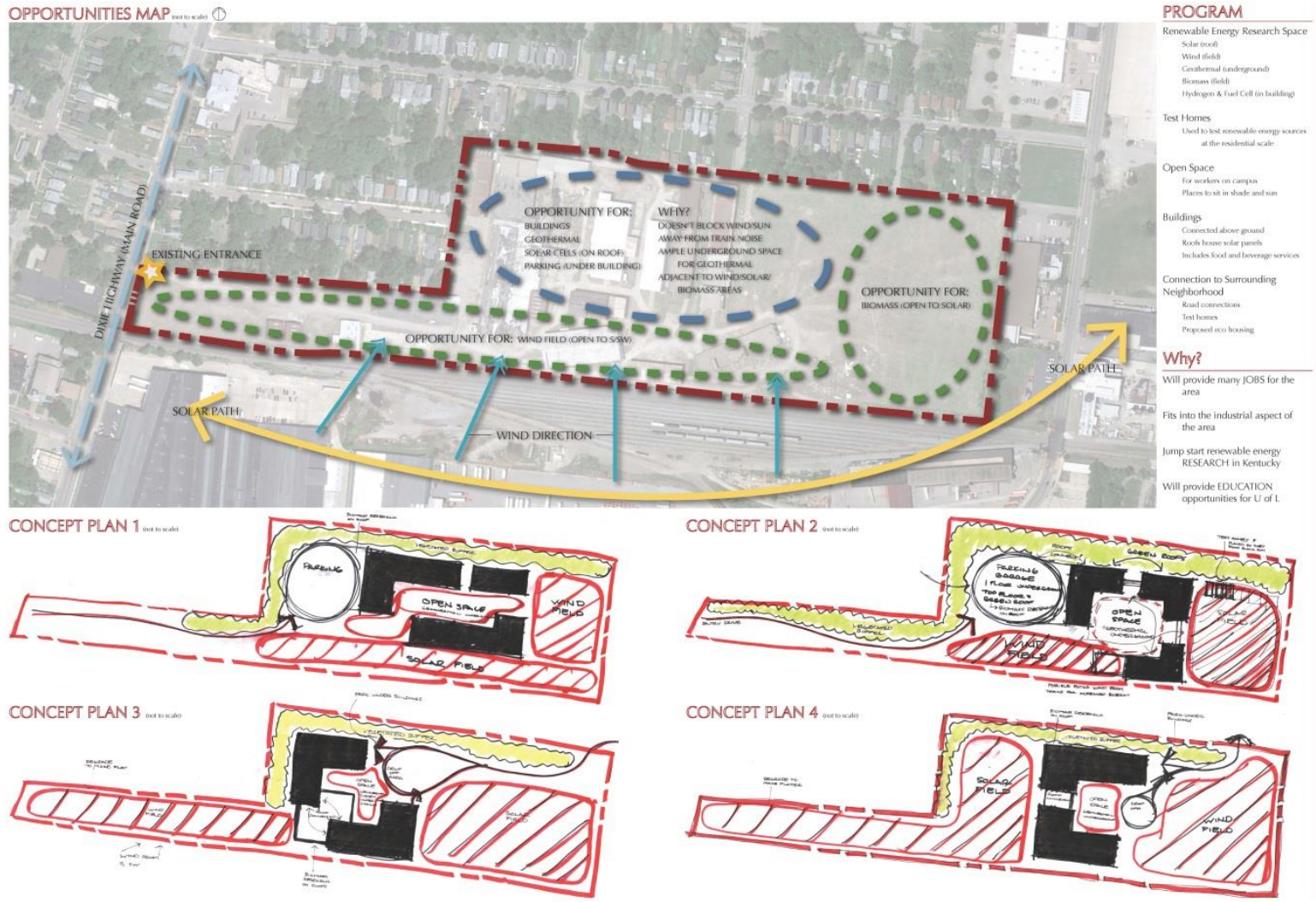
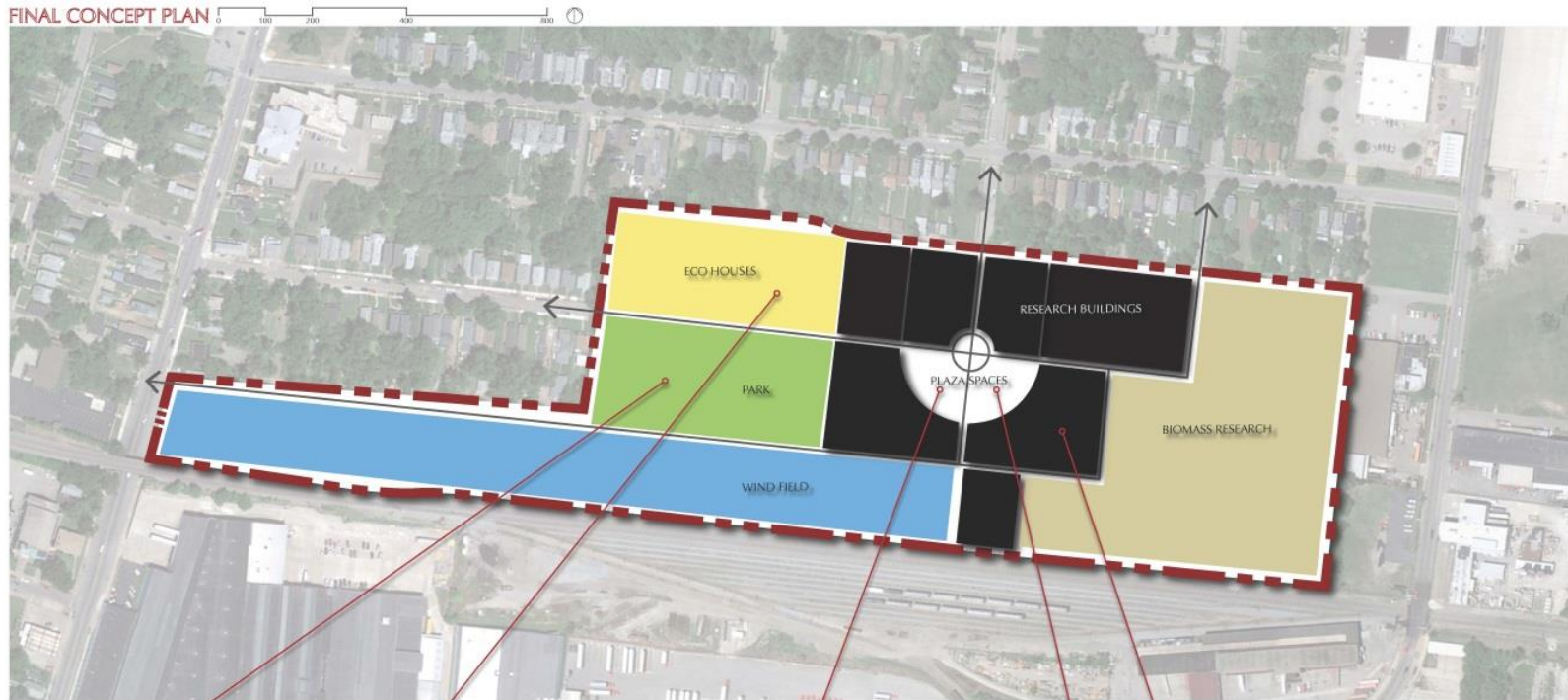
<p>PROGRAM</p> <ul style="list-style-type: none"> -COMMERCIAL PROPERTY -RESIDENTIAL TOWNHOMES -GREEN SPACE -LARGE RETAIL STORES -MOVIE THEATER -GROCERY STORE -LOCAL BOUTIQUE'S -RESTAURANTS -WALKABILITY -ACCOMMODATE ALL AGES -RETAIL VARIETY 	<p>ANALYSIS</p>  <p>RESIDENTIAL LARGE ANCHOR BUSINESS SMALL COMMERCIAL CENTER PARK SURROUNDED BY RETAIL VIEW OF ROAD/ROAD LARGE RETAIL BUSINESS INDUSTRIAL</p> <p>AFTER GATHERING INVENTORY OF THE SITE AND IT'S CONDITIONS, THE DESIGNER WAS ABLE TO MAP OUT THE BEST PLACES FOR DEVELOPMENT. THE ANALYSIS ALSO SHOWS CONDITIONS AROUND THE SITE THAT WILL EFFECT THE DESIGN. THE MAIN CONSTRAINT WITH THIS SITE IT THE CONTAMINATION OF THE SOIL. THE SITE WILL HAVE TO HAVE A NEW SOIL CAP TO BE SAFE FOR DEVELOPMENT.</p>	<p>JACK SIMMONS 2-20-2012 LA-842</p> <p>PAGE 1 OF 2</p>
<p>CONCEPT</p> 	<p>THE GOAL OF THIS DESIGN IS TO CREATE A RETAIL OPEN AIR MALL ON THE SITE. AFTER RESEARCHING THE SITE AND ITS SURROUNDINGS, IT IS EVIDENT THAT THERE IS NOT MUCH COMMERCIAL DEVELOPMENTS CLOSE-BY. THE SITE IS CONSIDERED A FOOD DESERT BECAUSE THERE IS NOT A CLOSE GROCERY OR MARKET. THIS DESIGN WOULD INCLUDE A GROCERY STORE AS WELL AS LARGE RETAIL STORES. LOCAL LOUISVILLE AND KENTUCKY VENDORS COULD ALSO HAVE STORES LOCATED ON THE SITE. CONTINUEING THE EXISTING ROAD GRID THROUGH THE SITE WAS A MAJOR PART OF THE CONCEPT AND HOW THE PROPERTY WAS LAID OUT. THE GRID GIVES ORDER AND MANY ACCESS POINTS TO THE SITE. THE CENTER SQUARE IS THE FOCAL POINT OF THE DESIGN CREATING AN OUTDOOR SPACE FOR SHOPPERS. A LARGE FOUNTAIN IS LOCATED IN THE CENTER WHICH WILL DRAW VISITORS INTO THE PARK WHEN VIEWED FROM THE STREET.</p>	<p>PARK HILL COMMONS LOUISVILLE, KY</p>
<p>PRELIMINARY DESIGN</p> <p>RESIDENTIAL TOWNHOMES ARE PLACED ALONG THE PAN HANDLE OF THE SITE. THEY ARE PLACED THERE TO MATCH THE SURROUNDING RESIDENTIAL PROPERTIES. DIXIE HIGHWAY IS A MAIN ROAD FOR THE RESIDENTS TO HAVE ACCESS WITHOUT HAVING TO USE THE COMMERCIAL ENTRANCES.</p>	<p>THE ANCHOR STORE IS THE LARGEST AND MOST PROMINENT. IT IS LOCATED AT THE END OF THE MAIN STREET TO DRAW VISITORS THROUGH THE SITE.</p>  <p>THE BUILDINGS WERE CHANGED AND RESIZED TO ALLOW FOR ALL OF THE PARKING TO BE LOCATED ON THE GROUND LEVEL. THE LARGER STORES ARE LOCATED ON THE NORTH SIDE OF THE SITE, WITH SMALLERE BUISNESS SURROUNDING THEM, AND ALONG THE CENTRAL AXIS STREET.</p> <p>THE ORIGINAL DESIGN ACCOMODATED PARKING UNDERNEATH THE BUILDINGS. ENTRANCES AND EXITS WERE PLACED AROUND THE SITE FOR MULTIPLE ACCESS ROUTES.</p> <p>SMALL PLAZAS ARE PLACES IN BETWEEN BUILDINGS CREATING OUTDOOR SPACES AROUND THE STOREFRONTS.</p>	

Figure 15 – University of Louisville Center for Renewable Energy Research by Thomas Wortman

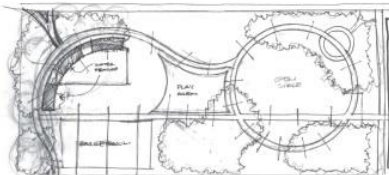
Board 1 of 4



University of Louisville
 CENTER FOR RENEWABLE ENERGY RESEARCH
 To promote the use of renewable energy in Louisville and the rest of Kentucky through education and revitalization of the Park Hill community.
 THOMAS WORTMAN
 UCA STUDIOS
 FEBRUARY 20, 2012



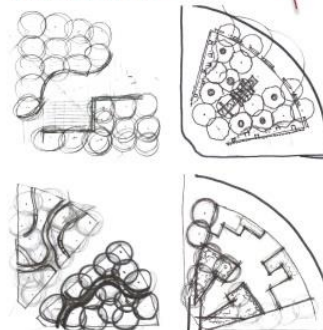
PARK CONCEPT



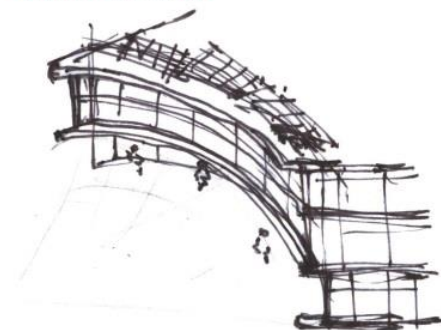
ECO HOUSE CONCEPT



PLAZA CONCEPT



BUILDING CONCEPT



Concept plans 1 through 4 were developed into the final concept plan shown above. Then, concepts were sketched for individual spaces within the plan. These individual spaces were then designed and developed to create interesting places for the public and employees of the research center to enjoy. Concepts drawings for the individual spaces are shown above. All the concepts seen on this page were developed further and put together to create the final master plan for the University of Louisville Center for Renewable Energy Research.



ENTRANCE DRIVE



PARK



BIOMASS RESEARCH

University of Louisville
CENTER FOR RENEWABLE ENERGY RESEARCH

To promote the use of renewable energy in Louisville and the rest of Kentucky through education and revitalization of the Park Hill community.

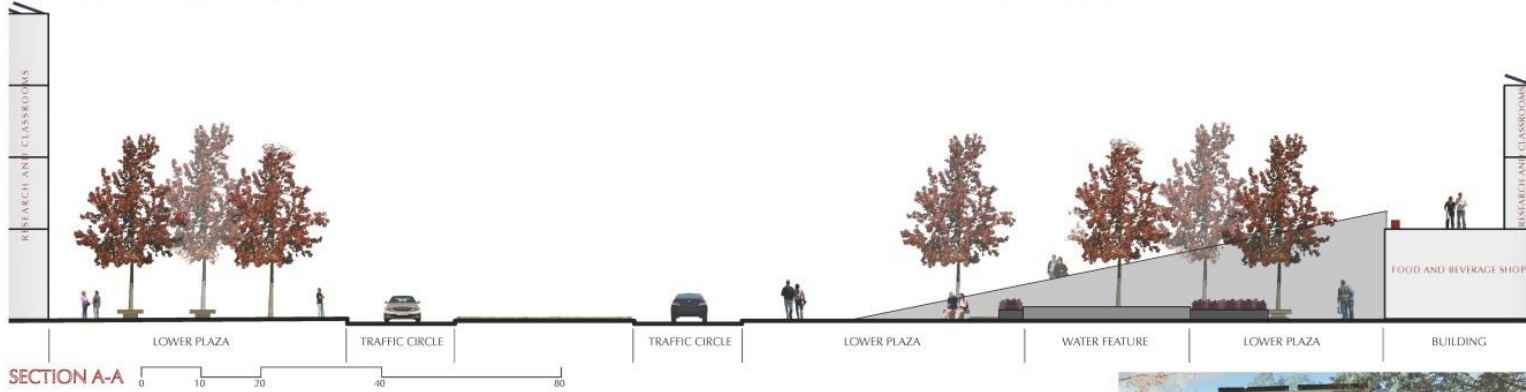
THOMAS WORMAN
 URS | AECOM
 FEBRUARY 20, 2012



RESEARCH CORE AND PLAZA SPACES



UPPER ENTRANCE



SECTION A-A



SECTION B-B



ECO HOUSE

University of Louisville
 CENTER FOR RENEWABLE ENERGY RESEARCH

To promote the use of renewable energy in Louisville and the rest of
 Kentucky through education and revitalization of the Park Hill community.

THOMAS MORRISMAN
 URS | STUDIO VI
 FEBRUARY 20, 2012


Figure 16 – UofL Park Hill Medical Plaza by Jan-Michael Lambdin

Board 1 of 3

UofL Park Hill Medical Plaza


Jan-Michael Lambdin
02/20/12

Goal Statement



To transform the area with an idea that will benefit the site, the neighborhood, and the city of Louisville socially and economically.

Context




Concept

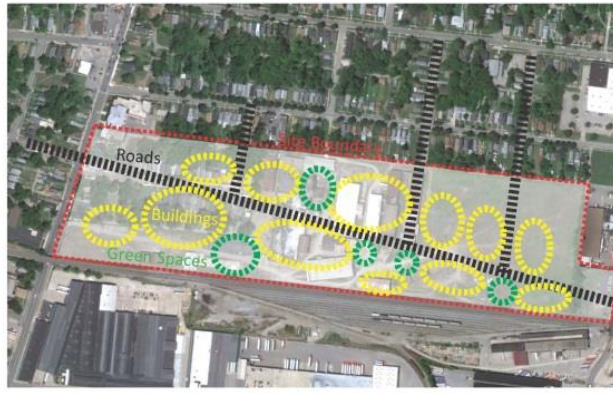
Concept: Hazardous to Healthy: involves transforming the site from an area dangerous to human occupation and into an area focused on improving the health of residents and furthering the understanding of health and medical science. The site will have buildings containing doctor offices, University of Louisville research facilities, University of Louisville learning facilities, private research facilities, health and wellness living quarters, and outdoor rehabilitation areas.
 The University of Louisville will take advantage of the campus and use the facilities to provide hands-on training to students in general practitioners, dentistry, physical therapy, speech pathology, medical research, nutrition, mentoring, and other medical programs to an area which in most cases is unacknowledged. This opportunity will allow students to obtain first- or second-hand medical care for exchange for experience provided to the student's participation in research programs.
 Private medical offices will take advantage of the access to a new market and the government funding made available by practicing in an economically depressed area. The number of professionals and students will give students the ability to learn firsthand from experienced physicians and other professionals.
 The site will also host medical research and medical technology labs. These facilities will benefit the local population with access to cutting edge technology and research, while allowing professionals and researchers the ability work alongside each other.

Economically, the area will develop as professionals, students, and patients need basic services. Food and other services will move into the site, providing jobs for neighboring residents and creating the foundation for future economic activity. The "pan handle" area of the site will be developed into outdoor rehabilitation therapy park, and garden area. The adult and therapy park can be used by various disciplines to engage patients in a more pleasant, natural, and social environment. The garden areas will provide nutrition and other disciplines the ability to engage the public on how to grow healthy foods and healthy eating habits.
 The hazardous aspects of the site will be mitigated by the placement of parking garages along the southern border of the site. This will conceal dangerous areas close to the old risk or loading area. The remainder of the site is to be used for residential development for buildings, courtyards, and sidewalks. Much of the pan handle, as previously stated will use a wall cap. The street grid surrounding the site will be maintained allowing easy access to the site. The site will also be developed with great attention paid to bicycle paths as a great deal of office use bicycles for transportation.


Site Diagram




Concept Diagram



Preliminary Design



Mid-Project Design



UofL Park Hill Medical Plaza

Jan-Michael Lambdin
02/20/12

Final Master Plan

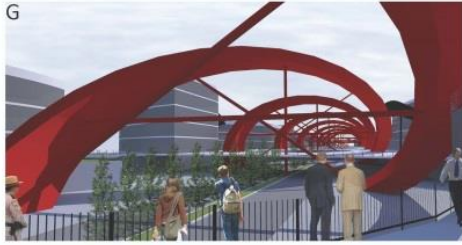
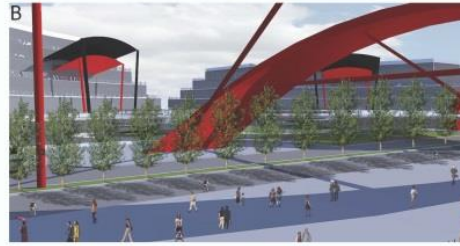


Section Views



Jan-Michael Lambdin
02/20/12

UofL Park Hill Medical Plaza



A-Perspective outside of light rail station looking Northwest.
 B-Perspective from Center Plaza looking South at street level.
 C-Perspective overlooking the park, looking Southwest.
 D-Perspective from Balcony overlooking entrance to sculpture garden, looking West.
 E-Perspective from balcony overlooking Central Plaza, looking Southwest.
 F-Perspective from ground level of Central Plaza, looking West.
 G-Perspective looking East through the site.
 H-Perspective overlooking fountain garden.



University of Louisville Masters of Urban Planning Capstone Studio – Spring 2012

Figure 17 – UofL 2012 Capstone Studio 18th Street Corridor Poster

18th STREET CORRIDOR STUDY

Capstone Studio, School of Urban & Public Affairs, University of Louisville, Spring 2012

Introduction

Thomas Beard
Kat Becker
Warice Bland
Evan Corder
Nick Creney
Chayon Hu
Aaron Hawkins
Michael Gray
Abigail Free
Megan Emyernt
Laura Hunkshery
Danaelle Myers
Kelly Reed
Scott Ramser
Amanda Strong

J. Michael McCoy, M.A.
Instructor

Land Use & Community Form

Zoning Map

Form District Map

Land Use Map

Black Leaf Chemical Site Redevelopment Concepts

Park Hill Green

Green Leaf Development

Assembly Orchard

On Track Development

Solarleaf Park

Mobility

Public Transit Access

18th Street Crosswalks

Location	Notes
W. Main St	Signalized
W. 2nd St	Signalized
W. 3rd St	Signalized
W. 4th St	Signalized
W. 5th St	Signalized
W. 6th St	Signalized
W. 7th St	Signalized
W. 8th St	Signalized
W. 9th St	Signalized
W. 10th St	Signalized
W. 11th St	Signalized
W. 12th St	Signalized
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W. 95th St	Signalized
W. 96th St	Signalized
W. 97th St	Signalized
W. 98th St	Signalized
W. 99th St	Signalized
W. 100th St	Signalized

Typical Street Section 60' R.O.W.

Corridor Identity

18th Street Corridor Identity

Although the 18th Street Corridor has a strong cultural identity and history tied to the residents in the neighborhood, it is also an area with a large amount of assets that are not currently being used to their maximum capabilities. In order for the neighborhood to reap the benefits of a higher successful economic driver with quality industrial and commercial space, there must be enhancements to its physical appearance. Because 18th Street is the most traveled street in the neighborhood it is primed for new commercial development and urban design measures should be applied to this street.

Some measures that can be undertaken to improve the identity of the 18th Street Corridor are the addition of new trees and trees along public walkways. Planting trees along 18th Street will soften the industrial appearance of the corridor and add to the feel that this is a mixed use neighborhood that is a blend of industrial, commercial, and residential. Examples of how landscaping can be incorporated into the corridor is in the street sections below. These additions will enhance the character of the area and create a place people will want to live, visit, and shop. In addition, addressing quality of life factors such as open space and street furniture improvements can serve to reconnect the neighborhood.

Shown below are pictures representing the recommendations for the addition of street furniture, signage and banners, and public art. There are also suggested options for lighting along the corridor that will provide a greater sense of security to travelers along 18th Street, while enhancing the character of the area. These recommendations are meant to increase the functionality of the streetscape while more them more aesthetically appealing.

Public Art

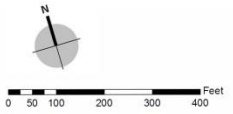
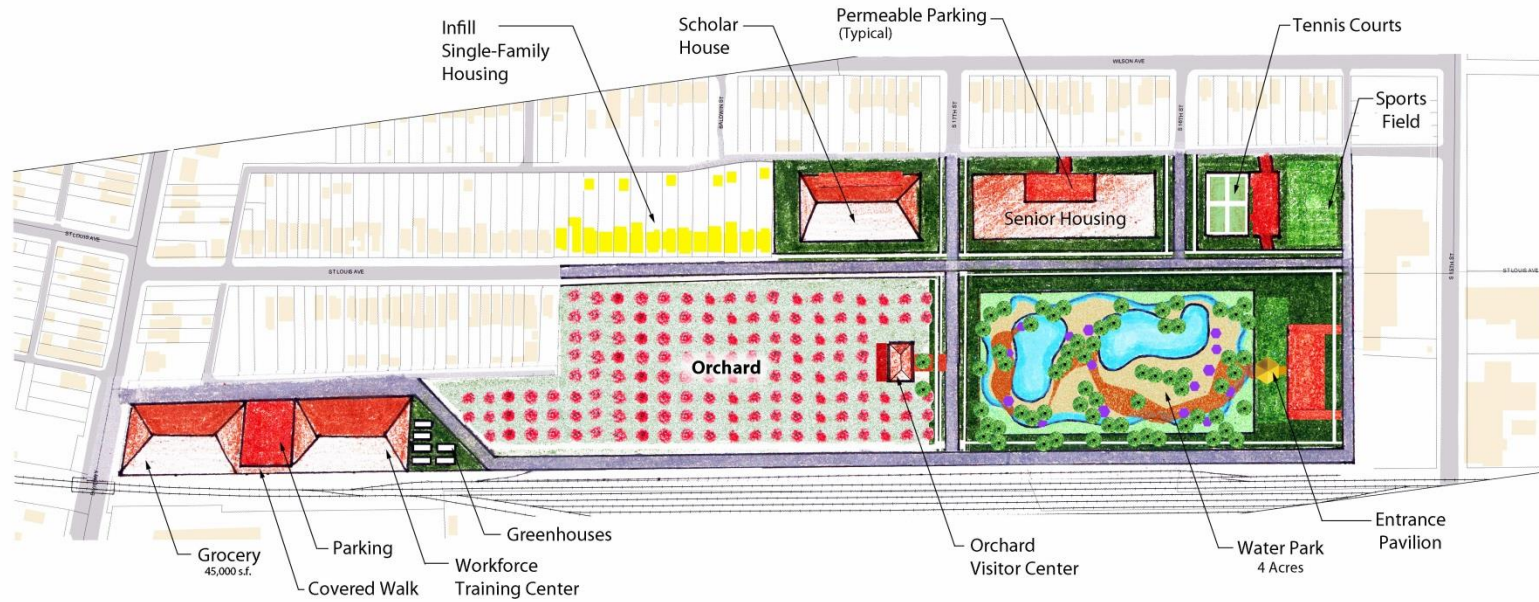
Signage and Banners

Street Trees and Landscaping

Street Furniture

Before After

Figure 18 – Aquaberry Orchard by Kat Becker, Danielle Meyers, and Kelly Reed

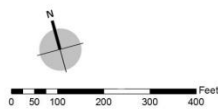
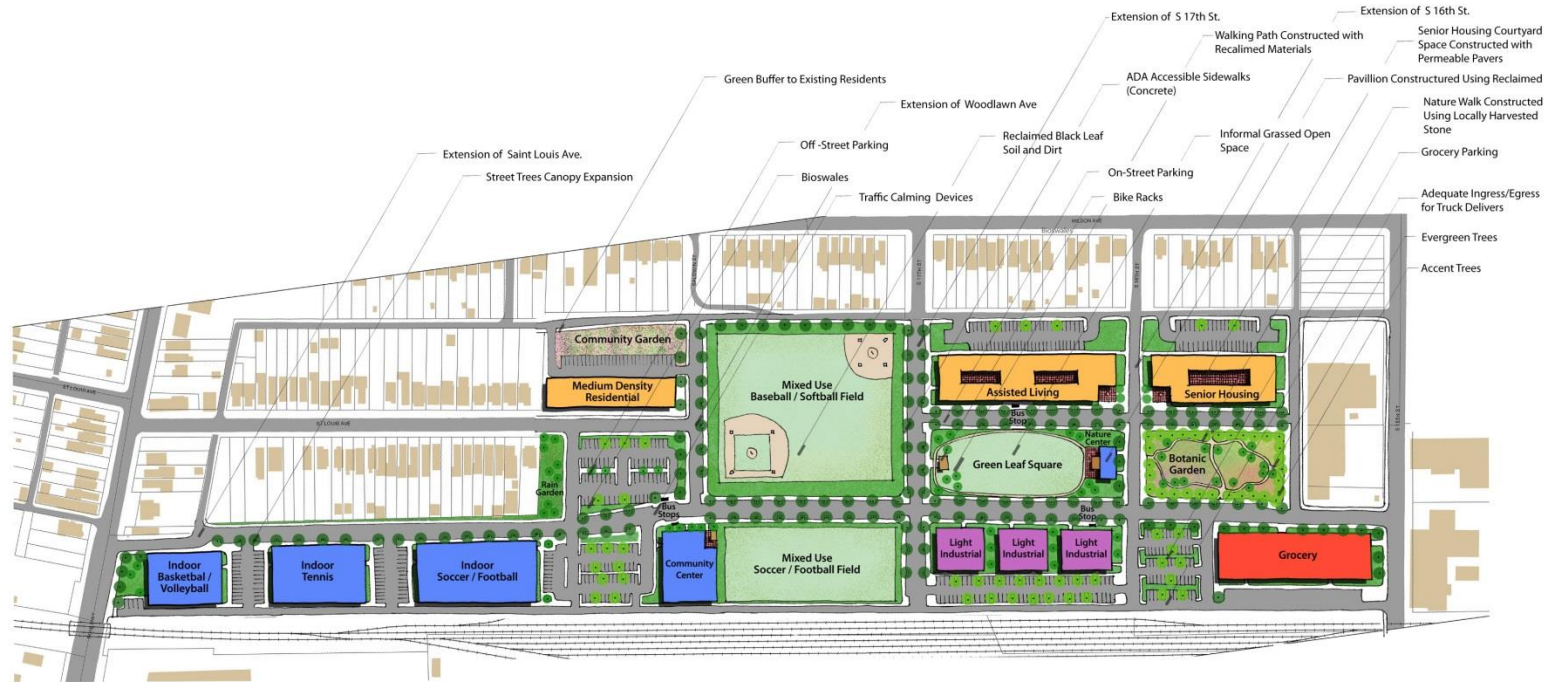


Aquaberry Orchard

1391 Dixie Highway
Louisville, Kentucky

Created by:
Kat Becker
Danielle Myers
Kelly Reed
Capstone Studio 2012

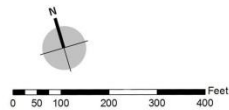
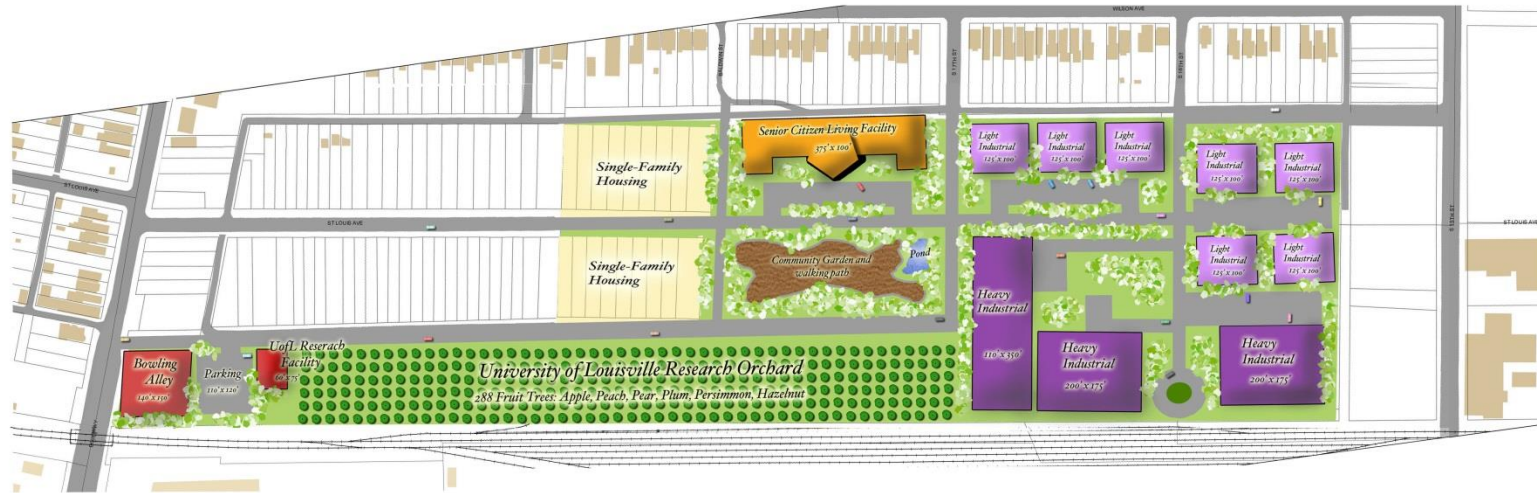
Figure 19 – Green Leaf Development by Evan Conder, Megan Enyeart, and Aaron Hawkins



Green Leaf Development
 1391 Dixie Highway
 Louisville, Kentucky

Created by:
 Evan Conder
 Megan Enyeart
 Aaron Hawkins
 Capstone Studio 2012

Figure 20 – On the Track Development by Scott Ramser and Nick Creevy

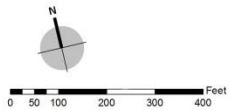
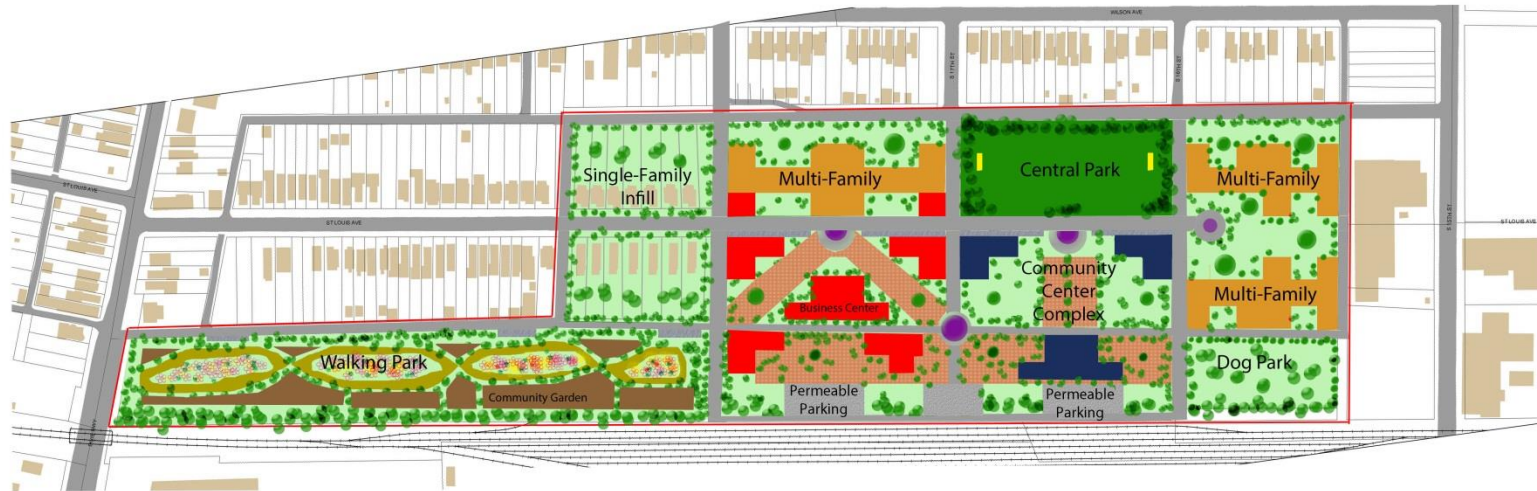


On Track Development

1391 Dixie Highway
Louisville, Kentucky

Created by:
Scott Ramser
Nick Creevy
Capstone Studio 2012

Figure 21 – Park Hill Green by Abigail Free, Amanda Strong, and Chuyan Hu

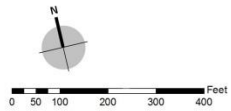
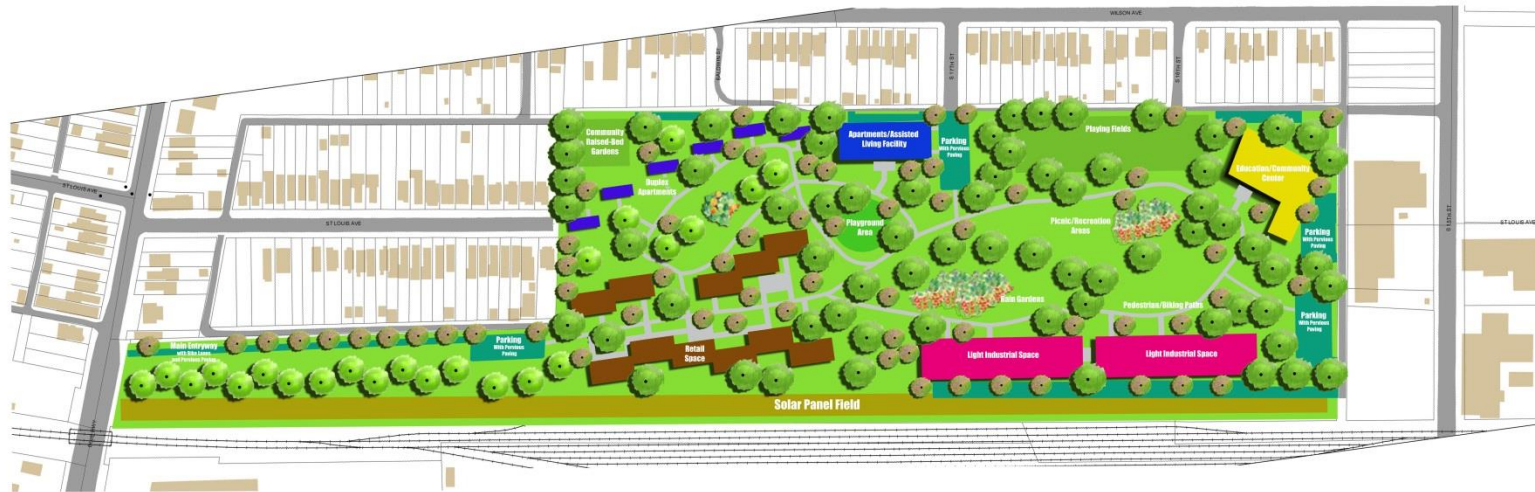


Park Hill Green

1391 Dixie Highway
Louisville, Kentucky

Created by:
Abigail Free
Amanda Strong
Chuyan Hu
Capstone Studio 2012

Figure 22 – Solarleaf Park by Thomas Beard, Wanice Bland, and Laura Humphrey



Solarleaf Park

1391 Dixie Highway
Louisville, Kentucky

Created by:
Thomas Beard
Wanice Bland
Laura Humphrey
Capstone Studio 2012

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