PARCELS AND PEPPERS

SAVORY IDEAS FOR ADDRESSING VACANCY IN ST. LOUIS

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LAR 646: COMMUNITY PLANNING AND DESIGN STUDIO, 2015

KANSAS STATE UNIVERSITY

COLLEGE OF ARCHITECTURE, PLANNING & DESIGN

DEPARTMENT OF LANDSCAPE ARCHITECTURE AND REGIONAL & COMMUNITY PLANNING

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Parcels and Peppers: Savory Ideas for Addressing Vacancy in St. Louis

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LAR 646: Community Planning and Design Studio, 2015
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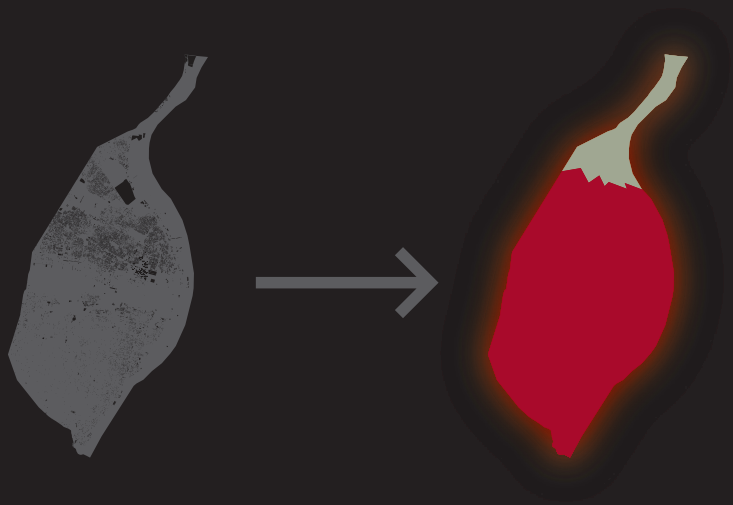

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PREFACE

Beginning in the 1950s, many American cities experienced significant population decline in their urban core. The reasons for decline include local, regional and federal policies, housing preferences, social issues, transportation options, economic trends, quality of public schools, and many other interrelated complex variables. While some downtown areas have experienced a significant renaissance over the past 10 or 20 years, others remain relatively empty in the middle, so-called “Shrinking Cities” or “Legacy Cities.” The City of St. Louis experienced a 62% decline in population from its peak in 1950, and now has one of the highest rates of property vacancy in the nation.

While crime rates soar and educational attainment lags in areas of high vacancy, there are reasons for hope. Old North, an emergent district in an otherwise struggling area of St. Louis has begun attracting new residents and business owners – reversing the trend of depopulation, even at a minuscule scale. The City of St. Louis and major investors are considering a massive riverfront redevelopment that could catalyze change in nearby vacancy-plagued neighborhoods. Individual change-makers in transitional districts like the Cherokee Street District are investing funds and sweat in improving the quality of life of their neighborhoods.

In the summer of 2015, 18 students led by Associate Professors Blake Belanger and Howard Hahn addressed vacancy dilemmas and opportunities for the City of St. Louis. The students, midway through a Master’s of Landscape Architecture degree in the Department of Landscape Architecture and Regional & Community Planning at Kansas State University, were enrolled in LAR 646 Community Planning and Design St.udio and seminar. We worked with K-State’s Technical Assistance for Brownfields Communities (TAB), the United States Environmental Protection Agency (EPA), the United St.ates Department of Housing and Urban Development (HUD) and the City of St. Louis to address vacant urban property. The federal agencies are part of the White House Strong Cities, Strong Communities Initiative (SC2), which the Obama Administration tasked with providing technical advice and expertise to seven cities with the intent of regaining economic footing.

In this book you will find information, maps, neighborhood tools, planning tools, communication tools, mild ideas, spicy ideas, and ways to put it all together. Throughout the intense 8-week summer semester, we learned a lot about St. Louis and the challenges of urban vacancy, and we worked hard and thought creatively about how we could make a contribution. We hope the work contained herein will be inspirational to residents, planners, scholars, activists, non-profits, and anyone who cares about making a difference in St. Louis.

1

INTRODUCTION

1.1

INTRODUCTION: HOW TO USE THIS BOOK

This book is about ideas. Our intent is to contribute to the long-standing dialogue about the challenges of vacant land and abandoned buildings in the City of St Louis. We are (1) providing ideas for understanding vacancy issues, (2) offering mild, hot, and spicy ideas for repurposing vacant land, and (3) suggesting ideas for reaching out to the people of St Louis. We are also providing five tools for action. Some tools are well-suited for residents in general, with easy-to-use formats and straightforward explanations. More sophisticated tools are geared for professionals, such as city planners, land consultants, and developers. Anyone can use any of the tools.

We prepared this book to inspire a wide variety of people, who might use it in different ways. Whether you are a resident wanting to improve a vacant lot near your house, or a city official working to transform the entire city, there are ways you can use this book. You don't need to read the entire book to use the tools we provided. This section, "How to use this book," is your guide to tailoring our work to meet your needs.

Grassroots Tools
These tools empower residents and individual change-makers. If you are trying to figure out what to do with a vacant parcel in your neighborhood, begin with the *Vacancy Worksheet or the Encyclopedia of Ideas.*

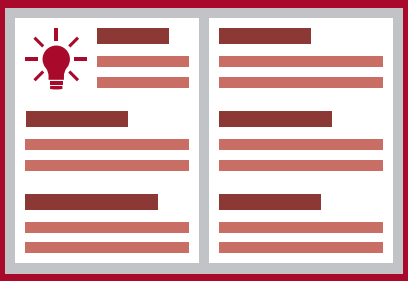
Neighborhood Tools
These tools give neighborhood leaders and non-profit organizations guidance to gain knowledge, organize, and make decisions about their community. *The Vacancy Worksheet, the Encyclopedia of Ideas, and Outreach and Communication tools* are for you.

Planning and Development Tools
These tools help city staff, government officials, and professional consultants communicate to wide audiences, gather much-needed detailed data, and match suitable vacant land-use strategies with appropriate locations. See Outreach and Communication, *Information Collection and Vacancy Evaluation Framework.*

Through this book, we hope to contribute to the conversation about improving vacancy conditions in St. Louis. We hope our ideas will introduce fresh optimistic perspectives about vacant land and abandoned buildings. We hope to inspire community leaders, nonprofit organizations, entrepreneurs, local change-makers, researchers, and residents to take action.

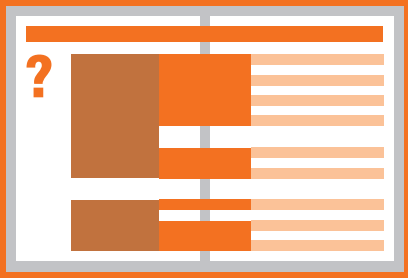
There are five tools that can be used individually or together, in whichever order works best for your situation

Explore ideas for repurposing vacant parcels



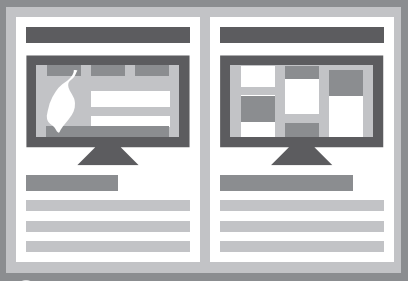
Section 3.3: Encyclopedia of Brainstormed Strategies
Use this resource to envision new possibilities. It's basically a menu of different ways to repurpose vacant areas, from a single lot to entire districts. It's organized on a heat scale, from mild ideas to spicy visions.

Find appropriate ideas for repurposing a vacant lot



Section 2.0: Vacancy Worksheet
Use this tool to better understand the condition of one or more vacant parcels, and find ideas specific to the opportunities present. The worksheet can be completed by anyone who has access to the parcel. We provided images and maps to help you answer worksheet questions.

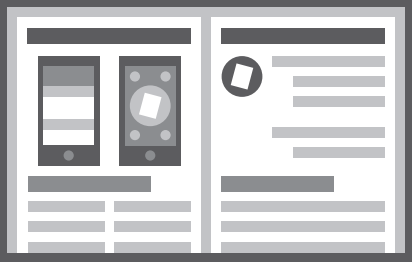
Share ideas or collect people's ideas



Sections 4.2: Website & 4.4: Social Media Campaign

Use this tool for connecting people. Here we provide ideas for creating a community-based website and initiating a social media campaign.

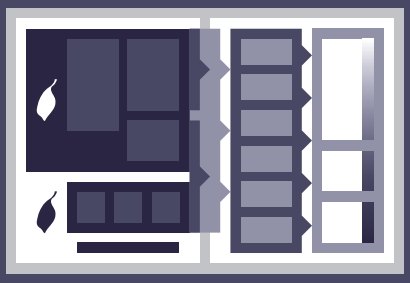
Consider some ways of gathering information about vacant land



Sections 4.1: Mobile Application & 4.3: Paper Surveys and Maps

Use this tool to help the city gather much-needed information about the condition of empty lots and abandoned buildings. We provide recommendations for mobile app and/or paper surveys that can help planners make better decisions.

Look at the big picture and use a sophisticated framework



Section 1.4: Framework for Action

Use this tool to match development goals with vacant land locations. The framework allows planners to include community input when evaluating alternative scenarios.

1.2

INTRODUCTION: OVERVIEW, BACKGROUND, DILEMMAS, AND OPPORTUNITIES

Since 1950, the population of St. Louis has declined 63% from a peak population of 856,796, losing 128,000 residents in the 1970s alone (Ihnen, 2014). Today, 318,416 residents populate the city, creating a large void in the city's footprint (Quickfacts.census.gov, 2015). Correspondingly, there are nearly 25,000 vacant parcels (empty lots + lots with abandoned buildings) in the City of St. Louis (PDA 2015). Approximately, 47% of these vacant parcels are owned by various departments of the City, and the rest are privately owned. Many previously dense neighborhoods are now sparsely populated, left to deteriorate.

The reasons for decline include local, regional and federal policies, housing preferences, social issues, transportation options, economic trends, quality of public schools, and many other interrelated and complex variables. While some downtown areas have experienced a significant renaissance over the past 10 or 20 years, other areas remain relatively empty. St. Louis joins other "Shrinking Cities."

This chapter provides a brief overview of the background dilemmas and opportunities related to vacancy which informed the studio work.

Vacancy Dilemmas

Vacancy is a symptom of changing economic, social, and cultural conditions where people have undergone hardship or have simply been attracted elsewhere to follow opportunities. As lower market demand ensues, less resources become available as capital and investment diminish, and many attendant problems set in.

Vacancy occurs throughout the City of St. Louis to some degree, but vacancy mapping shows the biggest concentrations in the north and southeast (Figure 1.2.1.

Figure 1.2.1: St. Louis Vacancy
There are high concentrations of vacancy in north and southeast St. Louis. (Shy 2015)

The history of this decline has been well documented by others in books such as *Mapping Decline: St. Louis and the Fate of the American City* (Gordon 2008) and *St. Louis Metromorphosis: Past Trends and Future Directions* (Baybeck and Jones, eds, 2004). The issues of this decline are well known and will not be repeated in depth. However, vacant areas in St. Louis are typically characterized by:

- *Low Income and Few Local Employment Opportunities:* There is a comparative lack of employment and revenue generating land uses in high vacancy areas. In the north half of city for example, 90% of the residents are forced to travel outside the area for employment (Appendix, Maps 7 & 8) . Many of these residents do not own personal vehicles (U.S. Census Bureau 2011).
- *Funding and Investment:* Compared to other cities in the United States, particularly "shrinking cities", St. Louis roughly resides in the lower third relative to long-term debt per capita--a good thing. Long-term public debt per St. Louis resident is about $3,300 (Hahn 2015). However, relative to increasing debt at federal, state, and local levels, public assistance is limited compared to the magnitude of public needs found in areas of high vacancy and blight. Areas of vacancy moving toward blight are also unattractive to significant private investment where risk is perceived to be high. The local government is also resistive to large-scale "urban renewal" after a history of well-intentioned, but failed projects.
- *Crime*: Crime (including violent crime) is a significant factor in St. Louis. It affects the quality of life, deters action and investment at nearly every scale of planning, and affects vacancy remediation strategies. Regardless of the direction of potential cause-effect relationships, safer neighborhoods and increased feelings of security are an essential foundation for attracting investment and redevelopment/rehabilitation. This is especially true for areas of high vacancy and surroundings.
- *Ongoing Infrastructure Costs*: As areas vacate, aging infrastructure is supporting fewer and fewer residents. Some of these infrastructure systems are nearing their service life and replacement or operation is questionable for some locations.

Vacancy Opportunities

Despite some major challenges, the City of St. Louis as a whole offers major urban and natural amenities that are potentially attractive to new residents:

- World-class river (and new riverfront development under consideration)
- Jefferson National Expansion Memorial (managed by the National Park Service)
- Historic Forest Park, famous botanic gardens, and many other nature/recreation oriented amenities
- Many energized mixed use and entertainment districts which attract diverse populations

As more investment flows into the city, the greater the opportunity to repurpose vacant parcels.

Other recognized opportunities (to name a few) include:

- *Smaller-Scale Parcel Opportunity Sites*: Single, or small groupings of vacant parcels provide affordable opportunity sites for neighborhood or grassroots organizations dedicated to implementing projects that improve existing conditions, or contribute to redevelopment that is sensitive to local residents.

- *Green Infrastructure Potential*. St. Louis is in the process of separating stormwater from sanitary sewer water. Vacant parcels considered in linear patterns, or aggregated, can be used for daylighting once visible streams and creeks as well as detaining stormwater.
- *Large Vacant Parcel Inventory:* Although the large inventory of vacant parcels owned by the LCRA, LRA and private entities imposes on-going maintenance costs, fewer owners also make it easier to assemble parcel tracts for larger-scale redevelopment with less complex negotiations.
- *Areas of High Redevelopment Potential*: There are many prime areas in St. Louis that are undergoing huge investment infusions, or are being planned as catalysts for new investment. Lower cost vacant parcels adjacent to these high market value areas are attractive to other developers looking to buy low to make redevelopment financially feasible. The higher the vacancy, the lower the land clearance costs and need to relocate residents.
- *Neighborhood Ties*: Many neighborhoods in high-vacancy areas may have historical significance, and the current remaining residents often have strong social-cultural ties contributing to a strong sense of community amidst the challenges. For newer residents, despite the conditions, these neighborhoods are affordable. Even so, changes from the new norm are needed if continued decline is to be stabilized and reversed.
- *Historic Structures and Districts*: St. Louis contains 290 National Register Historic Sites, 80 National Historic Districts, 8 certified Local Historic Districts, and one uncertified Local Historic District (PDA 2014). These designations help ensure that the rich history of St. Louis is preserved. Some locally conducted studies show that historic preservation has created thousands of jobs and has had a positive impact on the economy (Coffin et al., 2010). Most historic districts in neighborhoods impacted by high vacancy are National Register Historic Districts, and rehabilitation incentives are often available to residents.

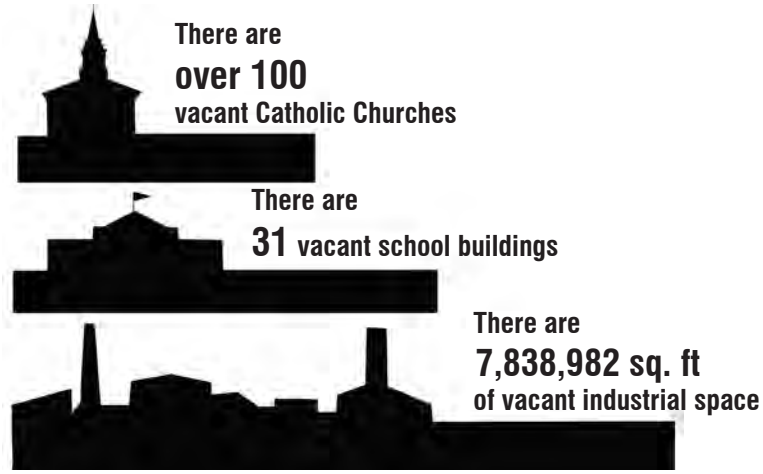


Figure 1.2.2: Non-residential Vacant Building Statistics Vacancy includes more than just residential buildings. (Allen and Shy 2015)

A Look Forward Relative to Vacancy

- *Need for Change*: For neighborhood/ward representatives and residents assisted by city planners, some relevant questions are: What is the clearest view of existing conditions? What changes might be appropriate and worth considering? How much change can be tolerated? What are the costs and benefits? What strategies, applied at what scale, could translate into positive change? How much self-determination and choice will remain? If relocation assistance is available, where would I move? Is the new location affordable and the conditions at least comparable to where I am currently living? How much do I want to be personally involved in directing my neighborhood's destiny?

Vacant Parcel Definition

The City of St. Louis Planning and Urban Design Agency defines a vacant parcel as:

"Vacant parcel" = Vacant (empty) lot or a lot containing an abandoned building

Since the vacant parcel definition is a more inclusive term, all work presented in this book will use this definition.

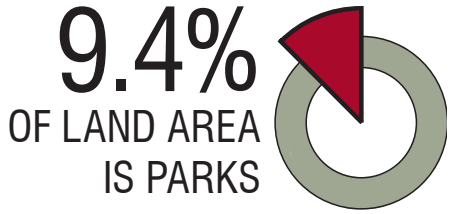


Figure 1.2.3: St. Louis Parks St. Louis has significant room for park growth and new park developments. (Swehla and Rose 2015)

1.3

INTRODUCTION: STUDIO INTENT AND METHODS

Our studio focused on St. Louis and the overall intent is to help residents and decision-makers better understand conditions of vacancy, and to suggest potential strategies and ideas for repurposing vacant parcels. We envision this document can be applied in a variety of ways, from influencing policy, to inspiring grassroots actions. We hope this book that can be used by many different people involved with vacancy issues.

This studio also provided opportunities for us to learn more about city-scale issues and working with multiple groups, develop connections between vacancy types and specific enhancement/ redevelopment ideas in a contextual framework, and explore the creation of infographics and maps to document the issues of vacancy and characteristics of a city.

Our methods included background research, critical mapping, assisting faciliation of a stakeholder's workshop, an ideation exercise, development of a "Spice Scale" to accent potential changes, developing/compiling many ideas, and finally documenting our work in a digital and hard-copy volume.

Our Studio…

This work is associated with the LAR 646 Community Planning and Design Studio and supporting seminar led by Associate Professors Blake Belanger and Howard Hahn from Kansas State University, Department of Landscape Architecture and Regional & Community Planning (LARCP). The intensive 8-week studio is comprised of 18 mid-level landscape architecture students who are entering graduate studies.

The studio, offering an outside perspective, assisted the City of St. Louis Planning and Urban Design Agency (PDA), "Strong Cities, Strong Communities" (SC2) team, and the Technical Assistance to Brownfields (TAB) team. This work is centered around the evaluation of vacant parcels for the purposes of management, enhancement, or potential reuse that is sensitive to residents' concerns.

Studio Goals and Objectives

G1) Assist the City of St. Louis Planning and Urban Design Agency, SC2 team, and TAB team in the planning and facilitation of Stakeholder Workshop #2.

G2) Develop extended detail and compelling graphics in the form of maps, info-graphics, classification/ typology schemes, strategy photomontages and prototypes, data collection methods, and illustrations supporting concepts and ideas to be communicated to a variety of audiences.

G3) Provide an outside perspective to vacancy issues in the City of St. Louis and propose organizational ideas, and conceptual imagery and strategy that may lie outside local agency and stakeholder constraints.

G4) Conceptualize how thousands of vacant buildings and parcels within the City of St. Louis can be assessed and evaluated for enhancement of existing conditions, or redeveloped relative to the adopted Strategic Land Use Plan (SLUP).

- O1) Outline how a clear and current *baseline assessment* of building and parcel vacancy could be organized and synthesized relative to numbers/density, distribution, defining characteristics, conditions, and location factors;
- O2) Create a *vacancy typology* to allow easier matching of parcel types with ideas for enhancement or redevelopment relative to acceptable change;
- O3) Compile a *list of ideas* to support parcel strategies and develop several ideas in more detail;
- O4) Provide a means to *evaluate strategy options* to arrive at a preferred option(s);
- O5) Identify factors to consider when planning implementation strategies; and
- O6) Identify and outline *methods for data/opinion collection and communications* relative to vacancy field conditions and public opinion to inform planning and let community voices be heard

Methods

Background Research

During the informative stages of this studio effort, we focused on researching St. Louis' historical and current conditions related to shrinking cities and the many issues surrounding vacancy. This was informed through seminar readings. These readings were grouped under the categories of:

- Decline, Perspective, and Re(forms)
- Social and Urban Ecosystem Dimensions
- Rejuvenation

In addition, our studio examined data provided through the City's website, GIS data provided by the PDA, and research into programs and initiatives being led by many city departments and outside non-profit groups.

Info-graphic Development

A process of communicating information about the city was devised through a series of info-graphic research exercises. Each info-graphic was developed as a visual aid to express qualities of the city. The info-graphics spanned a wide variety of topics: employment and income, demographics, walkability and health, race and culture in urban areas, vacancy ownership, and

green infrastructure to name just a few. These exercises were a large part of our investigation, but also provided opportunities to refine graphic representation skills.

Critical Mapping

Critical mapping is a cross-mapping exercise where spatial data is analyzed, synthesized, and graphically represented to generate classification, correlation, comparative, evaluation, and strategy maps. Mapping helped us focus, visualize and understand city-wide patterns and connections, and generally informed our studio work. The maps revealed themes involving social infrastructure, vacancy patterns, green space, development potential, historic districts, and more. This extensive foundation of critical maps created a more cohesive understanding of dilemmas and opportunities associated with vacancy, and helped direct ideas how vacant parcels might be repurposed. A more detailed explanation of the critical mapping process, as well as a compendium of the maps, is found in the Appendix.

Collection of Stakeholder Input

The LAR 646 Studio directly supported and contributed to a Strong Cities, Strong Communities (SC2) Vacancy Workshop held in the HUD field office in downtown St. Louis. The morning portion of the workshop was a series of presentations from the St. Louis Planning and Urban Design Agency and SC2 team members. In the afternoon, the TAB team led the participation portion of the workshop and the LAR 646 Studio facilitated three breakout sessions centered around responses to vacancy and blight considered over 1-year, 5-year, and 20-year time frames. Our Studio served as table leaders for small group discussions, collected and synthesized responses, and facilitated a final "vote by spending STL coinage" exercise. More details and results of this meeting are found later in this document section.

Idea Generation and Documentation

During the final phase of the studio representing five weeks, we expressed our areas of interest (in rank order) and were then divided into teams for the purpose of developing and documenting:

- Classification schemes and a synthesized typology for representing vacant parcels;
- Ideas supporting strategies for potentially repurposing vacant parcels; and
- Methods for efficiently gathering field data related to vacant parcels and investigating electronic social media forms to encourage public discussion/input.

One team was responsible for developing documentation standards, graphic themes, and coordinated production of the summary studio book. Studio professors, serving as editors, contributed to the Introduction and Conclusion, developed a framework for synthesizing the collection of student work as a "Vacancy Evaluation Framework", and provided general review.

Figure 1.3.1: Formulation of Vacancy Typology Student group formulates vacant lot, vacant building, vacancy pattern, and context classifications to arrive at a typology for vacancy. *(LaBarbara James Wigfall 2015)*

The Spice Scale

The St. Louis city boundary resembles a chili pepper (see graphic opposite the Table of Contents), which inspired us to frame our ideas for repurposing vacant land along a "spiciness scale." Mild ideas are relatively inexpensive, quick to implement, involve only one or two parcels, and have few regulatory obstacles. Mild ideas, such as art installations, playgrounds, and community gardens, would help to improve the quality of life in struggling neighborhoods and are most sensitive to existing local culture. Next on the heat index, hot ideas require moderate investment, rely upon external influences (such as new Metrolink stops), and often involve groups of vacant parcels. Hot ideas would transform districts of the city and introduce new conditions such as ecological, agricultural, or employment uses. Finally, spicy ideas are ambitious visions that would transform large areas of the city and are significant catalysts for growth. Some – like introducing a Major League Soccer (MLS) stadium and regional soccer complex, or expanding the proposed riverfront development westward – would take years to implement, and would require heavy investment, strong external support, significant parcel consolidation, and regulatory review. We are providing ideas across a range of heat levels in order to provide alternatives that are implementable at various scales, require varying investment levels, and are driven by many types of urban actors.

"Comprehensive Vacancy and Blight Plan - Round 2: Vision, Strategies and Timing"
Strong Cities, Strong Communities (SC2) Meeting and Workshop
June 9, 2015

Location: U.S. Dept. of Housing and Urban Development - St. Louis Field Office, Young Fed. Building, St. Louis, MO

Participants: City of St. Louis Planning and Urban Design Agency (Don Roe, Matt Mourning); SC2 Team (Charlie Foley & Dave Doyle, EPA; Keven Muesenfechter, HUD; Cory Kokko, CDC); TAB (Blase Leven); KSU LAR 646 Community Planning & Design Studio (Blake Belanger, Howard Hahn, 18 students); and other representatives (see Appendix)

Overview

On June 9th 2015, LAR 646 Studio was invited to support the SC2 team in a meeting and workshop of select community stakeholders. The meeting featured several presentations by City and SC2 team representatives:

- "Promise Zones" - James Heard
- "Resilient Cities" - Don Roe (PDA)
- EPA TA Report - Dave Doyle (EPA)
- "Designing Healthy Communities" - Cory Kokko (CDC)

In the afternoon workshop, headed by Blase Leven (KSU)of Technical Assistance to Brownfields (TAB) and supported by the LAR 646 Studio of Kansas State University, workshop participants were asked to provide input through three breakout sessions. The first session focused on reviewing a draft vision statement and objectives developed at a previous workshop meeting held on March 10. Breakout Session 2 asked participants to think about what goals they felt were important for St. Louis to achieve in 1-, 5-, and 20-year time frames. Breakout Session 3 asked participants how the different organizations they represented could help achieve the goals identified in the prior breakout session. There were four representative groups who provided input on the goals. LAR 646 students served as table leaders for small group discussions, and collected and synthesized responses.

Figure 1.3.2: Breakout Session Discussion Group A group of workshop participants, facilitated by LAR 646 students (center), discuss city-wide goals relative to 1-, 5-, and 20-year time frames. *(Knight 2015)*

As a means to solicit input for relative priorities related to the 1-, 5-, and 20-year goals, LAR 646 Studio devised and prepared a "vote by spending STL coinage" exercise. Workshop participants were given 5 nickels, 4 dimes, and 3 quarters that were temporarily altered as "STL coinage". Participants were then asked to "vote" by depositing their coins in jars individually labeled with 1-, 5-, or 20-year goals which they felt needed the most attention (the jars were opaque to prevent a view of votes already cast by others). Voting results were then quickly tabulated as a bar graph and presented to the participants. The top choice for a 1-year goal was "Change of mind set (education)". The top choice for a 5-year goal was "Implementation of watershed plans". The top choice for a 20-year goal was "A walkable, transit-oriented city". Complete voting results are shown in Figure 1.3.5.

Figure 1.3.3: Voting with STL Coinage Workshop participants vote on 1-year, 5-year, and 20-year goals perceived as needing most attention. *(Hahn 2015)*

Breakout Session 1 – Review of Vision Statement and Objectives

June 9 Workshop participants suggested the following revisions to the original Mission Statement, Goals, and Objectives developed in the March 10 Workshop:

Suggested revisions to Vision Statement

- Shorten up, move second and third part to objectives, address citizens directly
- Add "green-space"/"breathable" space into first part of vision statement (best places for people to thrive)

Suggested revisions to Goals

- Separate goals into two parts: Broad & Specific
- Make goals more specific to St. Louis and feasible
- Have a larger fund for rehabilitation of neighborhoods
- Market the city to bring more people in and created a more accurate idea to outsiders of what all St. Louis has to offer.

Suggested revisions to Objectives

- Objectives: Include all people – the government and local citizens are extremely diverse
- Add a statement about publicizing opportunities to the public about incentives and tax breaks that the national and local government already have in place
- Bring in the second and third part from vision statement as points

Vision Statement (revised on 07.15.15)
"The St. Louis Vacancy and Blight Plan will provide a framework for citizens, partnerships with the City, neighborhoods, developers, philanthropic institutions and others, to create vibrant and thriving places to live, work, and recreate- including open spaces--by re-using vacant properties. Citizens, leaders, and other partners will participate and help create new places that preserve the City's heritage, that they are proud of, and that they deserve!"

Goals (revised 07.15.15)
Broad Goals

- Develop priorities in conjunction with economic development, green infrastructure and other existing plans
- Preserve historic structures and areas when possible
- Eliminate barriers to entry to home/occupancy
- "Middle neighborhoods" will be an area of focus

Site-Specific Goals

- Develop supportive local & State codes, regulations, and enforcement (including a consistent approach)
- Market the city to bring more people in and create a more accurate idea to outsiders of what all St. Louis has to offer.
- Develop good relocation / redevelopment density strategies
- Create a larger fund for rehabilitation of neighborhoods.

Objectives (revised 07.15.15)

- Build on and coordinate existing City capabilities and plans to create a comprehensive approach to prevent blight, and to identify, maintain, demolish and transfer ownership of vacant/abandoned properties, to facilitate feasible, sustainable interim and long-term multi-uses.
- Establish a managing entity, with multi-stakeholder advisory board, to coordinate Vacancy and Blight Plan responsibilities between City departments & other participating organizations.
- Identify adequate private and public funding for vacant property management, demolition, infrastructure improvements, and for the managing entity/participating City departments and organizations.
- Identify strategy to address community needs and weak market demand, to include the right mix of land uses to attract commerce, residents, and visitors.
- Coordinate and build on the City's existing areas of strengths, including existing organizations who already track and manage vacant properties, and effective approaches to vacancy prevention and nuisance ordinances, low cost of demolition, and existing landholding organizations.
- Consider diverse housing types, unique infrastructure, retail and business, ecological corridors, community gardens, education, health care, walkable areas, and other interim and sustainable uses.
- Address community needs, based on what is determined feasible from neighborhood and other stakeholder input, and from economic and environmental evaluations.
- Publicize opportunities to the public about incentives and tax breaks that the national and local governments already have in place.

Breakout Session 2 – "Where do you see your city in 1, 5, and 20 years?"

1-Year Time frame

- Complete inventory of vacant land
- Identify watersheds at a neighborhood scale
- Land bank policy reform
- Find temporary uses for vacant lots
- Get a building stabilization bond
- Educate the public- to change the current mindset
- Citizen feedback / investment / encourage grassroots efforts

5-Year Time frame

- Implementation of watershed plans
- Neighborhood focused strategies
- Improved walking, bicycling, and buss line
- Improve urban infrastructure (sewers and amenity)
- Create a comprehensive master plan for city

20-Year Time frame

- Have a green ecological corridor that could have conservation areas along it
- Have a functioning real estate market
- Metrolink expansion and reconnection
- Walkable, transit oriented city
- Model for reduced density living

Breakout Session 3 – What can different agencies do to help? (community official feedback)

St. Louis Development Corporation
1-Year Time frame

- Prepare legislation
- Maintenance of vacant parcels and buildings
- Fight to retain historic tax credit
- Building of stabilization fund

5 -Year Time frame

- Provide input to MSD on urban storm water projects
- Plan and incentivize a walkable city

20-Year Time frame

- Improve city to county relationships
- Facilitate Metrolink expansion

Breakout Session 3 – continued

Planning and Urban Design Agency
1-Year Time frame

- Conceptual planning
- Gather citizen feedback
- Determine feasibility of streetcar vs. light rail

5-Year Time frame

- City master plan drafted and approved

20-Year Time frame

- Update master plan

Missouri Department of Conservation
1-, 5-, & 20-Year Time frames

- Financial resources (short and long term)

1-Year (short) to 20+Years (long) Time frame

- Technical conservation expertise
- Neighborhood outreach
- Publicize a successful major urban conservation project in St. Louis (beginning to end)

Urban Vitality and Ecology Initiative
(Initiative of the Mayor's Office via the Office of Sustainability)
1-Year Time frame

- Continue active partnership with MSD

5-Year Time frame

- Demonstration projects for large-scale green infrastructure

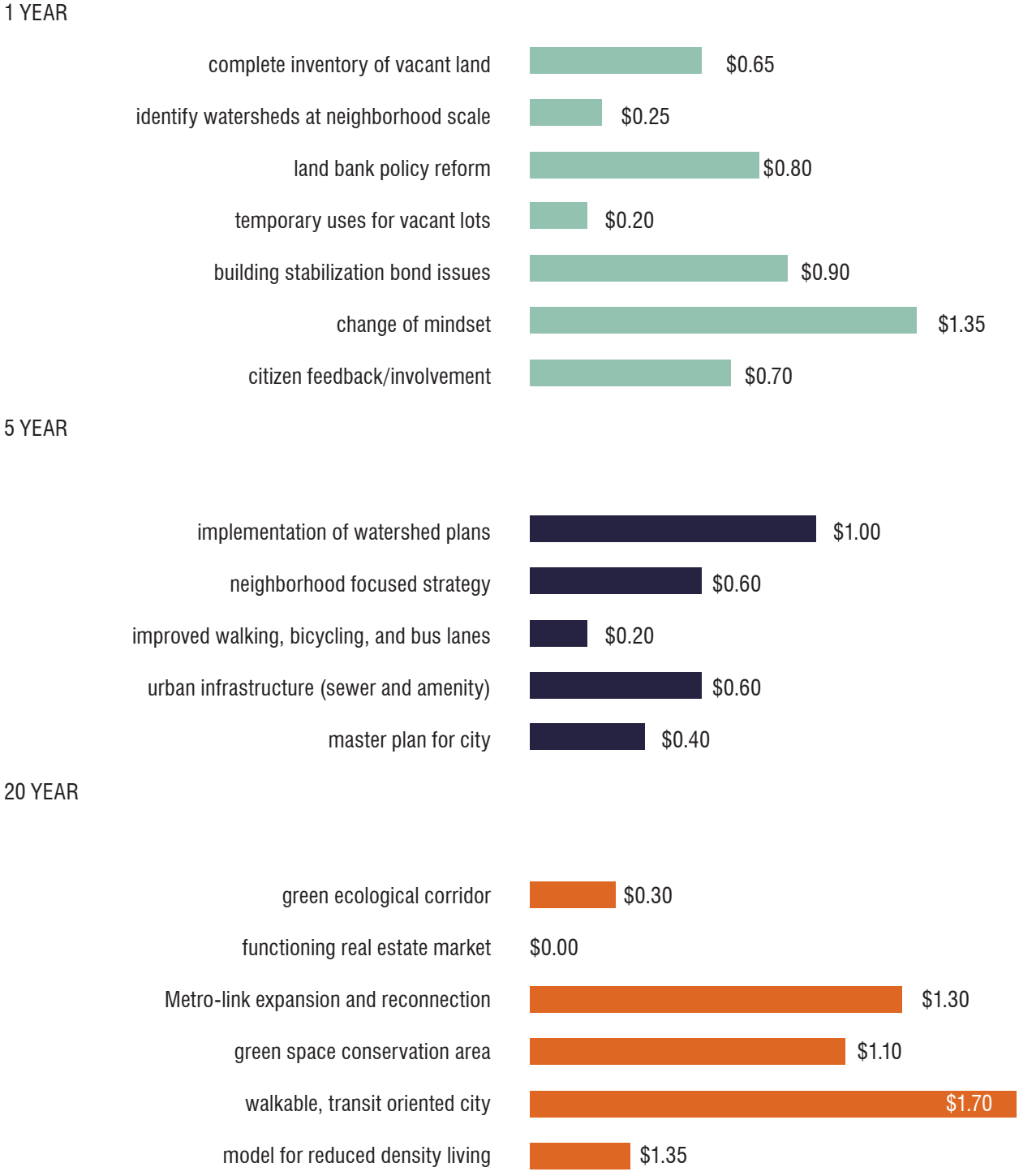
20-Year Time frame

- Push forward large scale green space transformation projects with Missouri Department of Conservation

Figure 1.3.4: Goal Discussions Workshop participants discuss goals and time frames related to vacancy. *(Knight 2015)*

Complete Voting Results:

Goals Perceived to Need the Most Attention in 1-Year, 5-Year, & 20-Year Time frames



Graphs represent the views of representatives from the following groups: Mayors Office Urban Vitality and Ecology "Initiative", the City of St. Louis Planning and Urban Design Agency (PDA), Cultural Resources Office (part of PDA), Affordable Housing Commission, Metropolitan Sewer District (MSD), Missouri Department of Conservation, and the St. Louis Development Corporation.

Figure 1.3.5: Voting Results Tabulated results of voting exercise asking workshop participants which 1-, 5-, and 20-year goals need the most attention. *(Swehla 2015 based on data tabulations by Knight 2015)*

1.4

INTRODUCTION: FRAMEWORK FOR ACTION

Parcel vacancy, which can lead to blight, makes living conditions more difficult for the remaining residents and businesses. For the City of St. Louis, the costs to carry and maintain a growing inventory of vacant parcels also consumes city resources which could be better directed to the benefit of citizens. How can the city more effectively reduce the vacant building/parcel inventory?

This section highlights a conceptual framework for integrating vacant parcel data, typologies, and strategies for the purpose of evaluating enhancement and redevelopment ideas leading to action. The framework will facilitate better coordination between multiple public agencies who are analyzing and managing a large inventory of vacant buildings and parcels, and private groups who are contributing to isolated improvements. The overall intent is to define a conceptual process to efficiently and systematically match a large number of vacant parcels with wide-ranging ideas aimed at improving or redeveloping declining areas. Many underlying issues are beyond the reach of physical planning and development; nonetheless some measure of improvement is possible.

The remaining chapters of this book will expound upon framework components in greater detail.

Need for Vacancy Evaluation Framework

As of 2015 (Q1), the vacancy breakdown for the City of St. Louis is as follows (PDA 2015):

- Empty Lots: 17.881 (9,393 privately owned; 8,488 owned by LCRA/LRA/MSD)
- Lots with abandoned buldings: 6,905 (3,797 privately owned; 3,108 owned by LCRA/LRA)
- Total Vacant Parcels (vacant lots + lots with abandoned buildings): 24,786

With this many vacant lots and buildings, there are many potential stakeholders involved who are focused on different issues and priorities:

- Residents and businesses who have strong community, cultural or historical ties to areas undergoing decline and may not want to see widespread land clearance or gentrification;
- The Planning and Urban Design Agency (PDA) who is focused on strategic long range planning and development while balancing stakeholder concerns;
- The PDA Cultural Resources Office and St. Louis Preservation Board focused on preserving the city's historic and cultural heritage;
- The Land Clearance for Redevelopment Authority (LCRA) focused on eliminating or preventing blight;
- The Land Reutilization Authority (LRA) who has on-going vacant parcel management and maintenance costs while trying to reduce the vacant parcel inventory by locating willing parcel buyers;
- Building Division who handles building inspections, permitting, and demolitions. The department also conducts an annual vacant building survey;
- The Public Utilities Department and private utility companies (Ameren, Laclede) attempting to maintain infrastructure and provide utility services to fewer and fewer customers in high vacancy areas;
- The Metropolitan Sewer District (MSD) is the regional sewer district that spans the City-County line and is involved in a number of initiatives that deal with re-use of vacant land, specifically uses that deal in stormwater retention/flood control;
- Numerous non-profit organizations like OneSTL, Old North St. Louis Restoration Group, and many other groups involved with local improvement projects; &
- People and investors interested in purchasing parcels at a variety of scales and locations.

Considering the large number of vacant parcels and stakeholders involved, a framework tool is needed to help guide the vacant parcel evaluation process leading to eventual action.

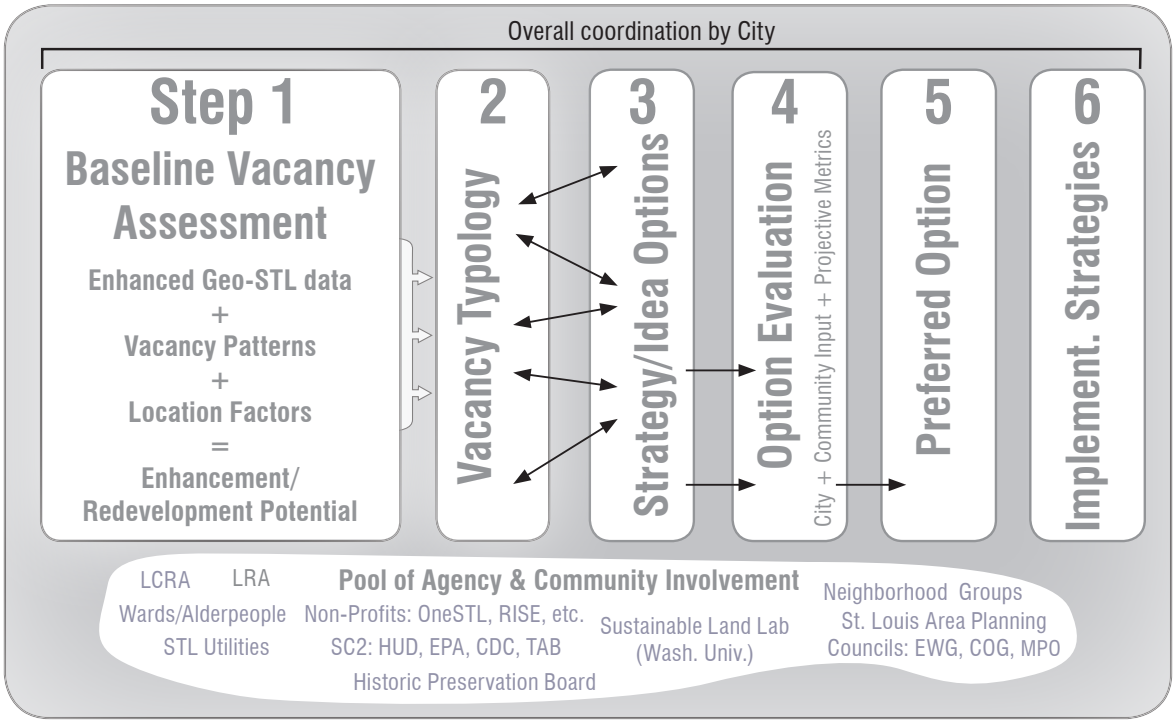


Figure 1.4.1: Conceptual Vacancy Evaluation Framework (simplified) This framework provides a systematic process for vacant parcel assessment, strategy/idea evaluation, and coordinating agencies and partners who have a collective voice. *(Hahn 2015)*

Framework Overview & Goals

The proposed framework incorporates many components and processes that may already be in place to some degree, but clearly illustrates potential connections and how the evaluation process flows. The most significant portion is how parcel assessment data (mostly provided through Geo St. Louis) combined with vacancy pattern and location factors could be simplified into five vacancy "types". In turn, these "types" could be cross-matched to one or more potential strategies and idea classes. The first portion of the framework could be particularly useful if automated to prepare parcel metrics across thousands of parcels for city-wide scenario forecasting relative to the Strategic Land Use Plan (SLUP).

Goals

- Integrate data collection, parcel characteristics, typing, and strategies
- Help ensure that multiple voices are heard during the option evaluation phase
- Support automated metrics

Process Steps

The following steps shown in Figure 1.4.1 (and in more detail in Figure 1.4.2) guide the process:

Step 1 - Baseline Vacancy Assessment: This step relies on building and parcel data available through Geo St. Louis and supplemented with additional field data to be collected (see Chapter 4). For a small number of small-sized parcels, enhancement or redevelopment ideas can be immediately identified, evaluated, and applied since overall change/investment is comparatively small and can be considered on a parcel-by-parcel basis. If a larger number of parcels is being considered within the same general area, then vacancy density and distribution factors come into account. Finally, locational factors are considered.

In general, as the number of parcels being considered increases (and potential land use changes might be involved), the vacancy density/distribution and location factors become more important. Similar to suitability mapping, classification schemes can then be used to characterize these factors in order to reclassify them into "low", "moderate", and "high" ratings for comparison or weighted aggregation. All of these factors in total constitute redevelopment potential. When parcel groups are compared across various geographic locations, the results should be similar to the Market Value Analysis (MVA) map where market value implicitly reflects these various factors.

Step 2 – Vacancy Typology: The purpose of this step is categorize diverse vacant parcels into "types" having similar prioritized characteristics which might best support certain enhancement/redevelopment ideas. This is a simplification process to allow easier parcel to strategy/idea matching. The prioritized criteria defining each type is a first attempt that can be modified after the framework is tested. The criteria varies between the types, depending on the priority of parcel assessment factors being considered. For "typing" a few parcels, a subjective evaluation can simply be made as to which type seems to be the best fit according to the criteria. For a large number of parcels, the "typing" could be automated based on a scoring system of re-classed parcel factors (Step 1).

Step 3 – Strategy Options: This step is organized by three primary strategies which describe how vacant parcels can be treated. These strategies are ordered by the intensity of change/investment required ("spiciness"--see Chapter 3). Under each strategy, typical SLUP categories are listed which might support the strategy. Next, a list of Enhancement/Redevelopment Idea Classes are shown which also support the strategy. Figure 1.4.3 expounds upon these idea classes by listing typical issues/questions, and providing specific treatment ideas and implemented examples.

Step 4 – Option Evaluation: After one or more Vacant Parcel Type-to-Idea matches have been made, each option is evaluated against 11 criteria. This step involves much eventual dialogue between various stakeholders, particularly for Strategies 2 & 3 which might involve resident/business relocation, parcel clearing, and more intensive investment/development. From the PDA's perspective, this evaluation is partially made through the lens of the Strategic Land Use Plan (SLUP) in terms of SLUP category compatibility, potential category modification, or resolving categories into finer levels of detail. This evaluation process also considers timeframes, projected metrics, and community input/discussion.

Step 5 – Preferred Option: This step is simply the outcome of Steps 1-4 (with possible Step 6 influence).

Step 6 – Implementation Strategies: This step explores all the strategies related to idea implementation. Some of the strategy issues might be considered earlier in the Option Evaluation (Step 4) because of potential influence in deriving a preferred option. This could be a sensitive social, cultural or political issue that could significantly propel an idea forward or pose a severe limitation.

VACANCY EVALUATION FRAMEWORK (Conceptual) v2.5

Figure 1.4.2a *(Hahn 2015)*

1

Baseline Vacancy Assessment

Vacancy Progression

Threatened Bldgs

Ownership (dB)
Location (dB)
Foreclosure status (?)
Tax rears (dB)

Vacancy Mapping

Vacant Buildings

GIS	*dB*	*FC*	*Data Field or Classification*
✓	✓		Ownership
✓			Location
		✓	Type (C)
		✓	Condition (C)
			Size (sf, # units, #floors) (C)
			Parcel coverage %
			Historic designation?
			Unauthorized occupant status
✓	✓		Current assessed value

Decisions: Hold, demolish, or sell for re-use/rehab

Data Status Codes:
GIS = GIS format: Geo-located+ associated data table;, new data could be interpreted/ processed through analysis or aerial imagery

dB = In Database, but not GIS linked/mapped

FC = Field collection needed ("App Potential")

✓= City to check status of various GIS, database, and field collection needs

Vacant Parcels (at Individual Parcel Scale)

GIS	*dB*	*FC*	*Data Field or Classification*
			Ownership
			Location
			Site conditions (C)
			Size/configuration (C)
			Utility provision
			Street frontage
			Access
			Current assessed value

Decisions: Maintain, sell individual parcels, change land use designation (if large parcel), remediate

Generally more important for Types 1-2

Vacancy Patterns

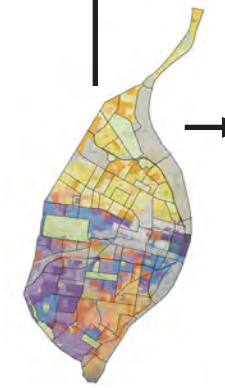
(at Block, Neighborhood, or Dist.Scale)

GIS	*dB*	*FC*	*Classification & Thresholds*
?		?	Vacancy density (C)
?		?	Vacancy distribution (C)

Decisions: Consolidate, relocate remaining residents (by various approaches), change land use designation, sell as aggregated parcels, remediate

Generally more important for Types 3-5

Cross-check



Current Market Value Analysis (MVA Map)

+

Location Evaluation (Filter)

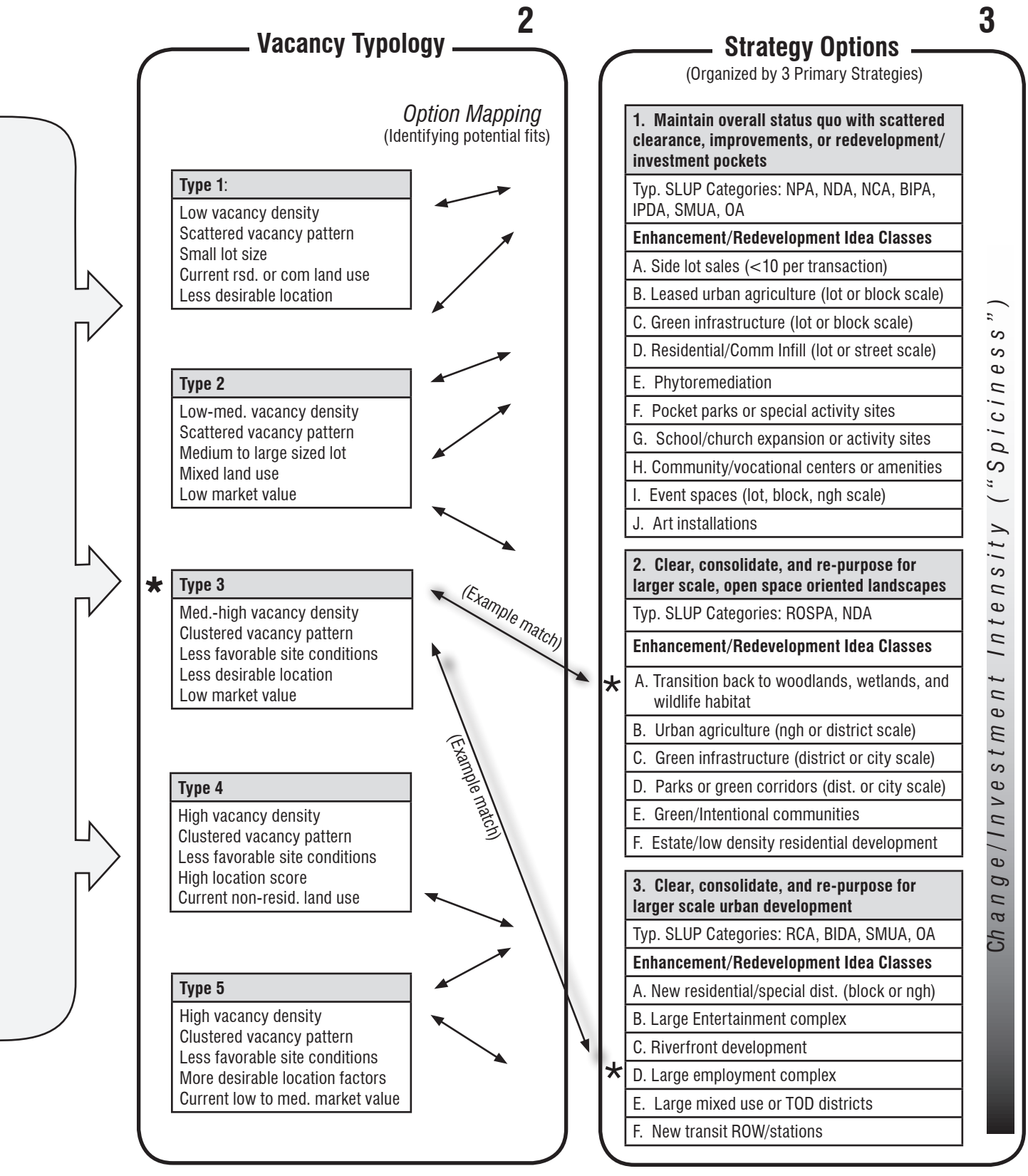
Context
Land use/zoning
Topog./landscape setting (+/-)
Crime (-)
Hist. District designation (+/-)
Demographics (age, diversity)
Infrastructure age (+/-)

Adjacency
High market value uses (+)
Natural amenities (+)
Recreational amenities (+)
Nuisance/disruptive feat. (-)

Proximity
Schools (+)
Employment centers (+)
Transp. infrastructure (+/-)
Utilities infrastructure (+/-)
Emerging Districts (+)
Potential TOD (+)

=

Redevelopment Potential


2
Vacancy Typology
Option Mapping
(Identifying potential fits)
Type 1:
Low vacancy density
Scattered vacancy pattern
Small lot size
Current rsd. or com land use
Less desirable location
Type 2
Low-med. vacancy density
Scattered vacancy pattern
Medium to large sized lot
Mixed land use
Low market value
*
Type 3
Med.-high vacancy density
Clustered vacancy pattern
Less favorable site conditions
Less desirable location
Low market value
Type 4
High vacancy density
Clustered vacancy pattern
Less favorable site conditions
High location score
Current non-resid. land use
Type 5
High vacancy density
Clustered vacancy pattern
Less favorable site conditions
More desirable location factors
Current low to med. market value
(Example match)
(Example match)
3
Strategy Options
(Organized by 3 Primary Strategies)
1. Maintain overall status quo with scattered clearance, improvements, or redevelopment/ investment pockets
Typ. SLUP Categories: NPA, NDA, NCA, BIPA, IPDA, SMUA, OA
Enhancement/Redevelopment Idea Classes
A. Side lot sales (<10 per transaction)
B. Leased urban agriculture (lot or block scale)
C. Green infrastructure (lot or block scale)
D. Residential/Comm Infill (lot or street scale)
E. Phytoremediation
F. Pocket parks or special activity sites
G. School/church expansion or activity sites
H. Community/vocational centers or amenities
I. Event spaces (lot, block, ngh scale)
J. Art installations
2. Clear, consolidate, and re-purpose for larger scale, open space oriented landscapes
Typ. SLUP Categories: ROSPA, NDA
Enhancement/Redevelopment Idea Classes
*
A. Transition back to woodlands, wetlands, and wildlife habitat
B. Urban agriculture (ngh or district scale)
C. Green infrastructure (district or city scale)
D. Parks or green corridors (dist. or city scale)
E. Green/Intentional communities
F. Estate/low density residential development
3. Clear, consolidate, and re-purpose for larger scale urban development
Typ. SLUP Categories: RCA, BIDA, SMUA, OA
Enhancement/Redevelopment Idea Classes
A. New residential/special dist. (block or ngh)
B. Large Entertainment complex
C. Riverfront development
*
D. Large employment complex
E. Large mixed use or TOD districts
F. New transit ROW/stations
Change/Investment Intensity ("Spiciness")

(Hahn 2015)

VACANCY EVALUATION FRAMEWORK - continued (Conceptual) v2.5

Figure 1.4.2b *(Hahn 2015)*

4

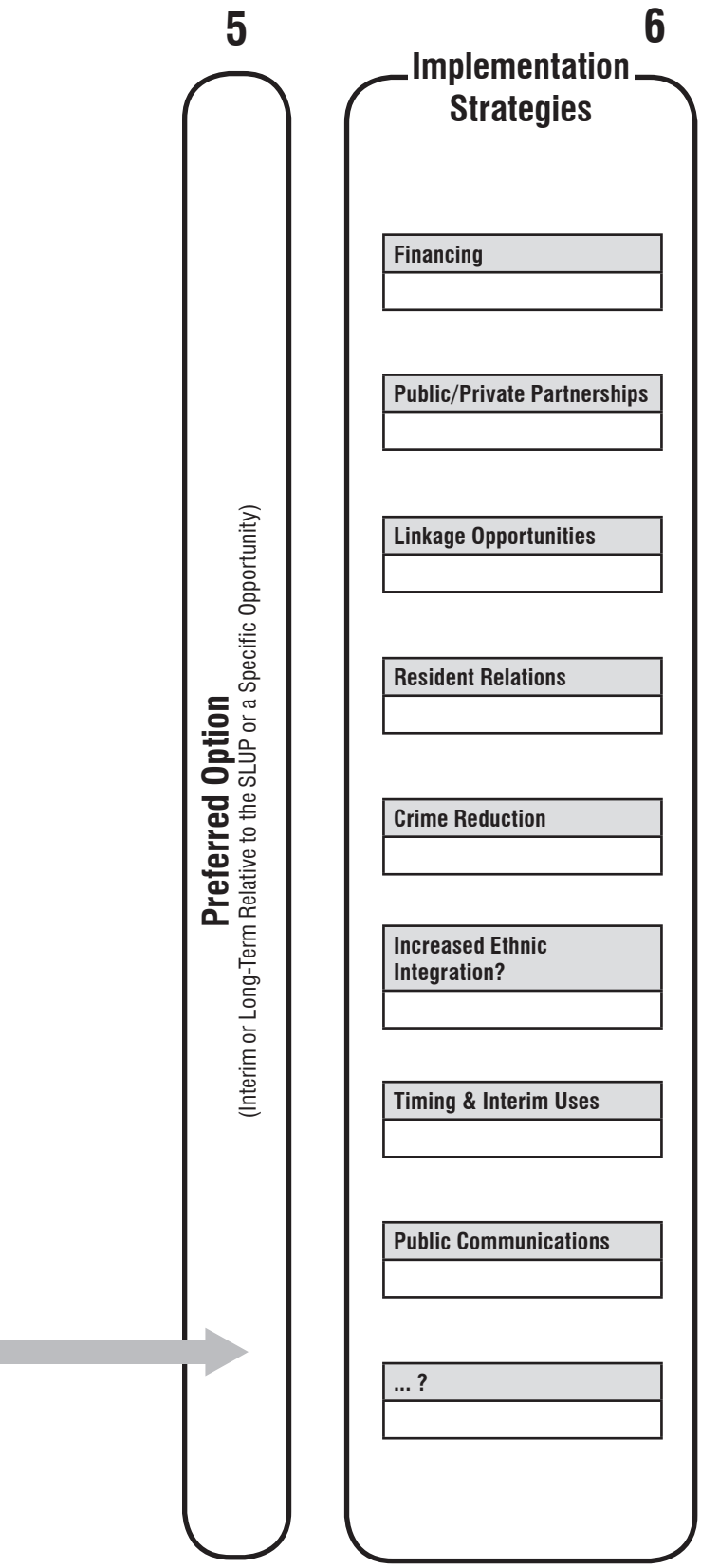
Option Evaluation

(Relative to Timeframe, Current SLUP, or Alternate Scenarios)

City Agencies/Departments + Community Input + Projective Metrics

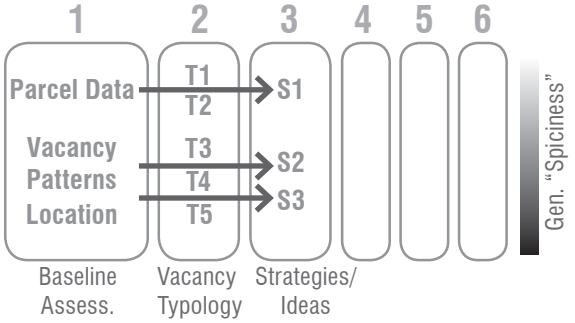
	Strategic Land Use Plan (SLUP) EVALUATION CRITERIA	Crime mitigation	Employmnet potential	Revenue potential	Enhance quality of life	Ecosystem support	Social/cultural accept.	Investment required	Political benefit	Scale/change magnitude	Replication potential	Timeframe required
	1. Maintain overall status quo with scattered clearance, improvements, or redevelopment/investment pockets											
	Idea Options (matched to parcel typology)											
	2. Clear, consolidate, and re-purpose for large scale,"green" landscapes											
	Idea Options (matched to parcel typology)											
*	A. Transition back to woodlands, wetlands, and wildlife habitat	H	L	M	M	H	M	M	M	H	M	MT
	3. Clear, consolidate, and re-purpose for large scale urban development											
	Idea Options (matched to parcel typology)											
*	D. Large employment complex	M	H	H	H	L	H	H	H	H	L	LT

* = Examples of narrowed ideas (or idea classes) that have been matched to a parcel type (or specific parcel) being evaluated under different strategies to arrive at a preferred idea option

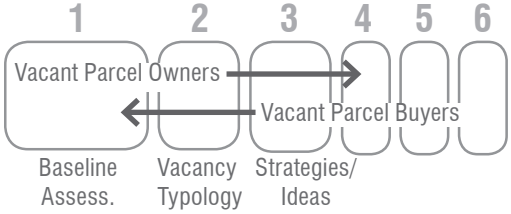


Notes

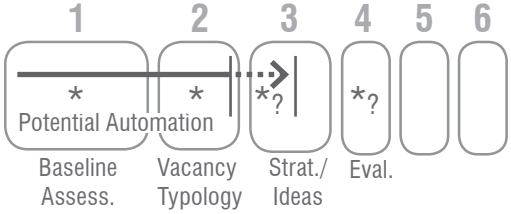
Horizontal Relationship: In *general*, when determining vacant parcel types and matching types to strategies/ideas, there is a horizontal relationship. Individual parcel data is most relevant to parcel Types 1 & 2, and mild strategies (S1) which represent minimal overall change from existing conditions. As more vacant parcels are considered, then vacancy pattern and location become increasingly important since potential land use change and higher investments may be required ("spicier" strategies).



Process Direction: In *general*, vacant parcel owners (LRA and private) seeking potential buyers work forward through the process (matching vacant parcel types to potential strategies/ ideas). In *general*, potential buyers of vacant parcels (at various scales) may work the process backwards seeking parcels that might be a best fit for an intended enhancement or redevelopment idea.



Potential Automation: To manage and "match" a large inventory of existing vacant parcels, parts of the evaluation process could be automated (Steps 1 & 2). Perhaps a first pass of the Step 2 to 3 matching process might be possible. Steps 4-6 which involve a smaller number of parcels under actual consideration and require much stakeholder dialogue/ evaluation would not be automated. An exception might be automated metrics provided for Step 4 (Evaluation) relative to SLUP scenarios.



(Hahn 2015)

Relationship between Strategies, Idea Classes and Ideas

Figure 1.4.3 *(Hahn 2015)*

Strategy Option 1. Maintain overall status quo with scattered clearance, improvement interventions, or redevelopment/ investment pockets

Strategy Summary: Follow existing practices of maintenance/service provision. Maximize neighborhood self determination. Where opportunities arise, introduce targeted interventions and investment to improve the quality of life or provide new opportunities.

Rationale

- Outside resources are limited compared to the extent of current conditions and context factors.
- Vacancy is a symption of stresses on the urban poor, however many high vacancy areas still offer a measure of affordability
- Parcels will be cleared if a safety/liability issue. To the extent possible, vacant parcels will be matched to potential buyers
- Where opportunities arise, improvements/investments can improve the quality of life or catalyze improvements in small areas

Overall Benefits

- Most sensitive to residents/business owners who have strong social/cultural ties and may not wish to see major changes
- Empowers individuals and neighborhood groups to constructively exert more influence
- Improvements are generally less expensive, less complicated, and can be implemented in a more immediate timeframe
- LRA owns and controls of large number of individual parcels that are available if buyers can be matched
- Fewer resident relocations and emphasis on self-determination within resource constraints

Overall Challenges (mostly related to context and attracting parcel/structure buyers)

- Unless underlying factors are addressed, neighbhorhoods will continue to vacate.
- Infrastructure replacement/maintenance costs will continue to increase as service life nears
- Conditions deter outside investors, discourages newcomers, and quality of life remains difficult for remaining residents
- Contributes to de facto segregation based on housing affordability
- How to transition from/mitigate current high crime areas?
- Underground economy is difficult to dislodge and replace

IDEA CLASSES (General groups of ideas supporting strategies)	**Notes, typical issues/questions**	**IDEAS & EXAMPLES** (specific ideas for area enhancement/redevelopment)
A. Side lot sales/leases (<10 per transaction)	• Opportunities for consolidation? • Focus on adjacent parcel owners?	
B. Leased urban agriculture (lot or block scale)	• Improve communications for garden plot availability? • Generally 1-4 vacant parcel configurations per lease?	Residential lot food gardens
C. Green infrastructure (lot or block scale)	• Consolidate vacant parcels to support above ground drainage and water detention features • Locate in areas requiring stormwater pipe replacements	Bioswales, rain gardens, detention areas; Example: MSD Project Clear/Cortex
D. Residential/Commercial Infill (lot or street scale)	• Re(build) on vacant parcel(s) or acquire to expand existing buildings or yards. Special incentive financing?	Residential/commercial building infill; Example: Old North
E. Phytoremediation	• Best plant choices for remediation? Who maintains? • On-going water requirements/costs? • What types of contamination and threshold levels?	Ex: Old North sunflower lot (Wash. Univ Landlab), hybrid poplars (Jeffco Landfill), etc.
F. Pocket parks or special activity sites	• What features/activities would be most popular/used? • Who is responsible for maintenance?	Sitting garden, small playground, etc.
G. School/church expansion or activity sites	• How could adjacent parcels support/extend outreach? • Donation of parcel if prior demonstration of ngh impact?	School playground, church parking, etc.
H. Community/vocational centers or amenities	• Community center: what types of spaces? access? • Vocational center: what types of training? location? • Parking? Proximity to public transportation? • Construction/operational financing? Who staffs?	St. Louis Agency on Training and Employment (SLATE) or UrbanForce: remote workshop centers?
I. Event spaces (lot, block, ngh scale)	• Types of events anticipated? Season? How frequent? • Commercial sales?	Small concerts, food festivals, etc.
J. Art installations	• Temporary/permanent? Artist selection process?	

Strategy Option 2. Clear, consolidate, and re-purpose for larger scale, open-space oriented landscapes (where appropriate)

Strategy Summary: Incentivize remaining residents to relocate in nearby areas of similar affordabilty, consolidate vacant parcels, change land use designation, and put land into ag production or transition back to natural areas requiring little maintenance.

Rationale

- If confirmed by infrastructure investment and maintenance records, continued provision of city services in some areas may not be financially sustainable per number of residents served
- Extent and quality of remaining parcel infrastructure and/or buildings may have reached service life
- Quality of life and safety has deteriorated to the point where it is difficult to attract investors
- The holding timeframe may be too long or unpredictable. The land needs to generate net income.
- Degree and type of impact (positive or negative) depends on the scale and location being considered. However, this option provides opportunity for large scale "game changers" for reducing parcel inventory under right circumstances

Overall Benefits

- LRA owns and has control of large land acreages making parcel assemblage easier/affordable
- Lower infrastructure upgrade/maintenance costs as some areas taken "offline"
- Vacant land is put into income-producing uses (net $ gain?)
- Areas are cleared of potential safety and liability issues
- Opportunity to process/sell recycled materials?

Overall Challenges

- Unless private funding leads/assists with agricultural uses, the costs of other open space options are borne by public monies
- Building clearance cost in St. Louis is relatively expensive (avg. $10.3K/bldg.) Can economies of scale be achieved?
- Potential remediation required
- Political and financial costs to relocate residents to consolidated neighborhoods of similar affordability
- Even vacated/lower intensity land uses have holding costs (what is $/acre cost for yearly maintenance?)
- How to transition/mitigate current high crime areas?

IDEA CLASSES (General groups of ideas supporting strategies)	**Notes, typical issues/questions**	**IDEAS & EXAMPLES** (for area enhancement/ redevelopment)
A. Transition back to woodlands, wetlands, and wildlife habitat	• Cost/timeframe to clear? • Cost/frequency of management? • Successional timeframe? • Access/security/encampment issues? • Eventual transfer of ownership from LRA?	Example: Urban Regeneration: Reforesting Vacancy in Philadephia (http://scenariojournal.com/article/urban-regeneration/
B. Urban agriculture (neighborhood or dist. scale)	• Is minor automation required? At what cost? • Is dust/spray (if used) compatible with surrounding urban land uses? • Independent operations or neighborhood involvement? • Cost competitive produce compared to rural agriculture? • Distribution/food access/"specialty" advantages? • Most appropriate crops, orchard types?	*City Seeds Urban Farm*, STL (http://www.gatewaygreening.org/grow/gardens/city-seeds-urban-farm/); *Growing Home*, Chicago (http://growinghomeinc.org/about-us/);
C. Green infrastructure (district or city scale)	• Size requirements per green infrastructure type? • Vacant parcel promixity to natural drainage pattern? • Useful if located away from developed areas? • At this scale/option, emphasis is on changing impervious cover across large areas	MSD Project Clear stormwater projects
D. Parks or green corridors (district or city scale)	Parks: What types of parks are needed? What size? Green Corridors: • Where might green corridors connect adj. land uses? • What types of habitat could be provided? • What types of green infrastructure could be supported?	Concept: "The Plexis Spine of North Philly" (http://www.asla.org/2014studentawards/337.html

Strategy 2 Idea Classes - continued

IDEA CLASSES (General groups of ideas supporting strategies)	**Notes, typical issues/questions**	**IDEAS & EXAMPLES** (specific ideas for area enhancement/redevelopment)
E. Green/Intentional communities (Residential enclaves integrated with productive land uses/ microbusinesses)	• Offer lifestyle options; may integrate co-housing • May give hope & self-sufficiency to distressed neighborhoods • Maintain/reserve affordable sections to avoid gentrification? • Degree of involvement by residents in eco-village production/activities? • Hybrids between mainstream/"fringe" lifestyles? • If diverse income levels/culture among residents, potential for conflict?	• Co-housing (Metro Cohousing,STL; Heartwood, Bayfield, CO) • Eco-villages (Culver Way, etc.) • Conservation communities (Prairie Crossing, IL)
F. Estate/low density residential development (New construction or rehabilitation of noteworthy/historic structures; large expanses of surrounding open space)	• Could lead to gentrification? • Secured perimeter? • Search for compatible context	

Strategy Option 3. Clear, consolidate, and re-purpose for larger scale urban redevelopment (where appropriate)

Strategy Summary: Incentivize remaining residents to relocate outside the area, consolidate vacant parcels, change land use designation, and redevelop land to support major industrial, commercial, or entertainment complexes.

Rationale

- Looking to repurpose large amounts of vacant parcel/building inventory to support incoming employment and revenue opportunities at larger-scale
- Leveraging available, city-owned land to entice major economic drivers to catalyze ancillary development, makes the city attractive to new residents, and increases tax base

Overall Benefits

- LRA owns and has control of large land acreages making parcel assemblage easier/affordable
- Opportunity to grow city and offset losses incurred through the decades
- Opportunity to provide mix of employment, living, and transportation options
- Opportunity to spatially plan for equitable distribution and integrated systems

Overall Challenges

- Attracting "major players" is a multi-faceted, long term effort
- Large investment costs; extensive financing strategy involved
- Clearance could force crime into adjacent areas
- Vacancy is scattered at this scale and requires major consolidation
- Financial and political costs of relocating remaining residents in high vacancy areas

IDEA CLASSES (General groups of ideas supporting strategies)	**Notes, typical issues/questions**	**IDEAS & EXAMPLES** (for area enhancement/ redevelopment)
A. New residential/special dist. (block, neighborhood, district)	• May be centered around theme • Typ. centered around commercial/entertainment activity • Typically neighborhood scaled • May target specific user group/demographic	New Residential Streets/blocks: Old North New Commerical Districts: Del Mar Loop, The Grove, Central West End
B. Large Entertainment complex	• How much should be publically financed? • Where is the optimum location? • What catalyzing effects are anticipated?	Proposed Rams Stadium. MLS stadium,
C. Riverfront development	• How can visual and physical access be provided to river? • What are floodplain restrictions and mitigations? • What recreational amenities can be integrated? • What connections to ancillary development are provided?	STL North Riverfront Commerce Corridor
D. Large employment complex	• Opportunities for re-purposing large vacant buildings? • What adjacent land uses such as commercial districts or recreational amenities could support a large concentration of workers? • What close-by housing options would be attractive and entice a reduction in commuting? • What site size, configuration, and linkages are required?	National Geospatial-Intelligence Agency, Washington University Medical Complex, Cortex Innovation District
E. Large mixed use/TOD districts	• What types of transit is being considered? • Based on local market conditions, what types of associated development could be supported?	Delmar Loop and Forest Park-DeBaliviere TODs
F. New transit ROW/stations	• Density required for support? • What forms are most cost effective, flexible, and catalytic for the location/context being considered? • What are optimum routes? Where might cross-linkages exist with other transit forms?	Grand Metrolink Station

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Figure 1.4.3
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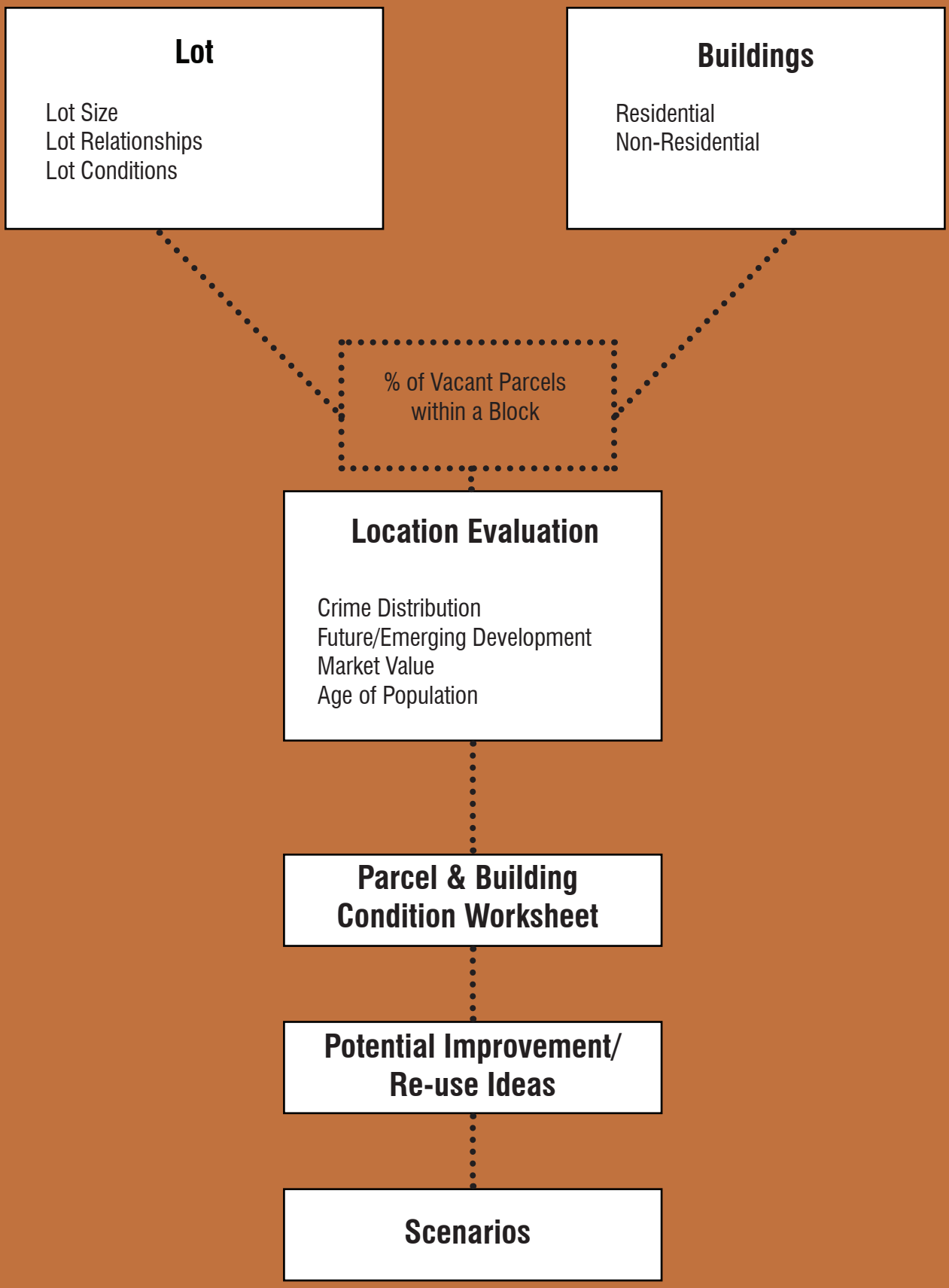
BIKE ROUTE
APPLY TODAY
K-2ND & 5TH-8TH GRADES
Work hard. Be nice.

2

VACANCY TYPOLOGY


Lot
Lot Size
Lot Relationships
Lot Conditions
Buildings
Residential
Non-Residential
% of Vacant Parcels within a Block
Location Evaluation
Crime Distribution
Future/Emerging Development
Market Value
Age of Population
Parcel & Building Condition Worksheet
Potential Improvement/ Re-use Ideas
Scenarios

CHAPTER INTRODUCTION

In this chapter you will be introduced to a system of classifications that will be blended into "types" to be matched to potential strategies. These classifications have been created to be used as a tool to characterize vacant land by the City of St. Louis or individual property owners. This typology tool will allow the City, potential developers, and current property owners a method of understanding what conditions are present, and what could hinder development. This will allow property owners and developers to begin to formulate a strategy for the redevelopment of the lot. To formulate a strategy, developers must know what land is available, lot characteristics, and surrounding factors of influence.

The classifications included in this chapter are divided into three groups; Parcel, Buildings, and Location Evaluation. The Parcel group contains site specific conditions, and how the vacant parcel relates to its immediate surroundings. The Buildings group relates to the size and type of existing structure. Finally, the Location Evaluation group includes characteristics that may affect the parcel, but are viewed at a much larger scale. Each of these classifications can influence the suitability of the lot for future development.

Once the classification tool has been used to assess the conditions of available parcels, the final section of this chapter discusses how parcel conditions may be used to form vacant parcel "types". Five parcel types have been defined. These types can then be used with the Vacancy Evaluation Framework , provided in Section 1.4, to match a set of strategies presented in Chapter 3.

Vacancy Condition Worksheet:

The following worksheet is designed to be used by community members, neighborhood leaders, city staff, small-scale developers, and anyone else interested in improving a vacant parcel. This worksheet is not all-encompassing, but provides a baseline assessment for evaluating parcel conditions. We recommend the data be collected by on-site observations, supplemented with the location evaluation maps in Section 2.3. Findings from this worksheet will connect parcel conditions to viable strategies.

Site Condition Classifications

(with or without a building)

See Section 2.1 for Examples

What are the parcel relationships? See Figure 2.1.3 & 2.1.4	What amount of vacant parcels are next to each other?	
	What is the pattern and scale of nearby vacancy parcels?	
What are the vegetation conditions? See Figure 2.1.5		
How sunny is the parcel? See Figure 2.1.6		
Is there any dumping? See Figure 2.1.7	Are there abandoned vehicles?	
	Any garbage or trash on site?	
	Any building material?	
	Any other forms of dumping?	
	No Dumping	
What is the soil health like? See Figure 2.1.8		
What types of water are avalible? See Figure 2.1.9 & 2.1.11	Does the site have access to city water?	
	Does the site contain surface water?	
Is the parcel level with the street? See Figure 2.1.10		
What is the parcel size?		
Overall, is there evidence of care?		

Observed Conditions

	Low	Medium	High	
	District/Neighborhood-based	Block-Based	Street-based	Parcel-based
	Overgrown	Heavily Vegetated	Lightly Vegetated	Maintained
	Low (0-30% Exposure)	Medium (30-60% Exposure)	High (60%+ Exposure)	
	Yes	No		
	Yes	No		
	Yes	No		
	Yes	No		
	Contaminated	At Risk of Contamination	No Contamination	Nutrient Rich
	Present, Working	Present, Not Working	Not Present	
	Yes	No		
	Parcel is above street	Parcel is level with street	Parcel is below street	
	Small (ex. typical residential)	Medium (ex. retail, apartment complex)	Large (ex. industrial, large commercial)	
	Well Cared For	Some Evidence of Care	Neglected	

Vacant Building Conditions

See Section 2.2 for Examples	**What was the building's former use?** See Figure 2.2.1 & 2.2.2	Residential use?	
		Non-Residential use?	
		No Building	
	What is the Building Coverage on site? See Figure 2.2.3		
	In general, what is the overall building condition?		
	Building comments:		

Location Evaluation

	What is the market value of the parcel? See Figure 2.3.4	
See Section 2.3 for Examples	**What is the crime rate of the area?** See Figure 2.3.5	
	Are there a lot of kids nearby? Are there a lot of senior citizens nearby? See Figure 2.3.6 & 2.3.7	
	Is the site near a Future/Emerging Development ? See Figure 2.3.8 & 2.3.10	
	Is the site near a school? See Figure 2.3.8	
	Is the site near the employment centers? See Figure 2.3.8	
	Is the site near public transportation stops? See Figure 2.3.9 & 2.3.11	
	Is the site near a religious institution? See Figure 2.3.9	
	Adjacency to what types of roadway? See Figure 2.3.12	

	Single Family Attached	Single Family Detached	House Converted to Apartments	Apartment Buildings
	Churches	Schools	Retail	Offices
	Industrial	Healthcare		
	Minimal (0-30%)	Moderate (30-60%)	Large (60-100%)	
	Poor	Average	Good	

Observed Conditions

	0-15,000	15,001-30,000	30,001-85,000	85,001+
	High Density	Medium Density	Low Density	
	A Lot of Kids	A Lot of Senior Citizens		
	Within 1/4 mile	Within 1/2 mile Radius	1 mile radius	
	Within 1/4 mile	Within 1/2 mile Radius	3/4 mile Radius	
	5 mile Radius	10 mile Radius	15 mile Radius	
	Within 1/2 mile	Outside 1/2 Mile		
	Within 1/2 mile	Outside 1/2 Mile		
	Along Interstate	Along Arterial	Intersection of Two Arterials	Along Local Road
	At Intersection of Two Local Roads	At Intersection of Local and Arterial Roads		

2.1

VACANCY CLASSIFICATION: PARCELS

A parcel, or a defined plot of land, can be classified through multiple characteristics that exist on site. We have developed a variety of classifications according to these site specific characteristics. These parcel classifications address parcel size, parcel context, and parcel conditions. These subcategories are used to help break down and understand the impact and influence of each classification.

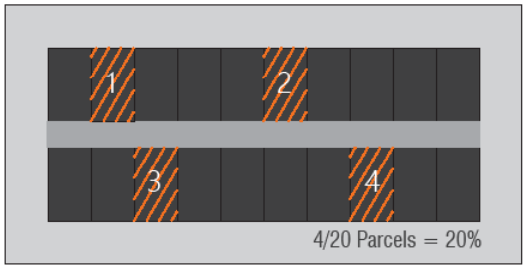
Each subcategory contains basic factors that play a role in shaping the current, and future use, of a parcel. Parcel size examines the size of the vacant parcel and its relationship to a building. Parcel context addresses how the surrounding parcels and block affect current and potential future land uses.

CONTEXT VACANCY

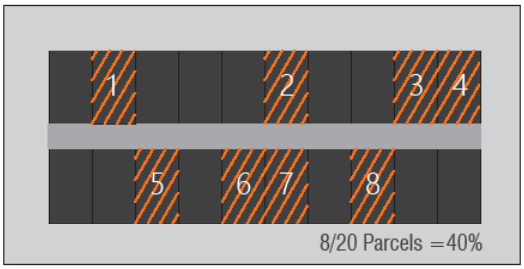
Parcel Context vacancy

= One Vacant Parcel
(with or without building)

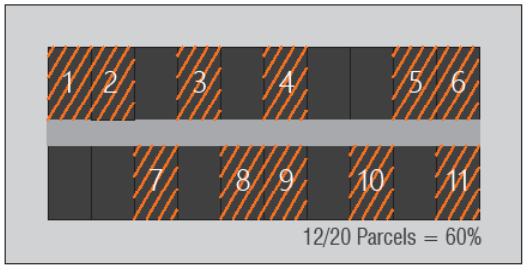
Low — Blocks with Vacancy between 0-25%



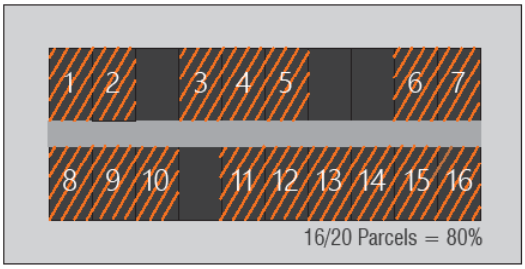
Moderate — Blocks with Vacancy between 26-50%



High — Blocks with Vacancy between 51-75%



Extreme — Blocks with Vacancy higher than 76%



Block Context Vacancy

Understanding the surrounding blocks' vacancy levels may influence the use of the site. The selected strategy should be able to fit well within its surroundings.

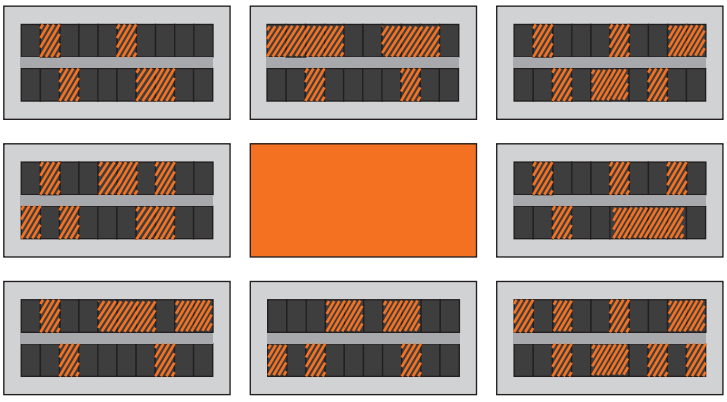


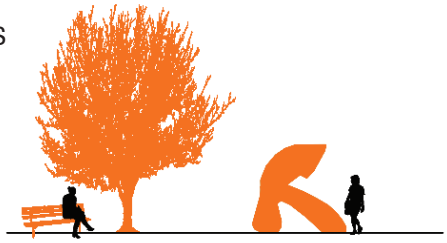
Figure 2.1.2: Block Context (Right) Block context should be taken into consideration when determining the appropriate strategy. *(Kellams 2015)*

Strategy Examples:

Restoration/Revitalization

Mixed Use Development

Installations/Parks



Large Natural Systems

Figure 2.1.1: Parcel Context Application (Above) Parcel context greatly effects the potential strategies. Parcels range between developed and more natural, which effects what could be used on the site. *(Bernal & Kellams 2015)*

VACANCY PATTERN CLASSIFICATIONS

Consolidation of Vacant Area within Block

These diagrams show blocks that have been further divided into parcels. A purple parcel represents one that is vacant. Some blocks may have small and few vacant parcels; this would be in the 'low' category. As more vacancies are present, there is a higher chance that they are consolidated to look like it is one large parcel.

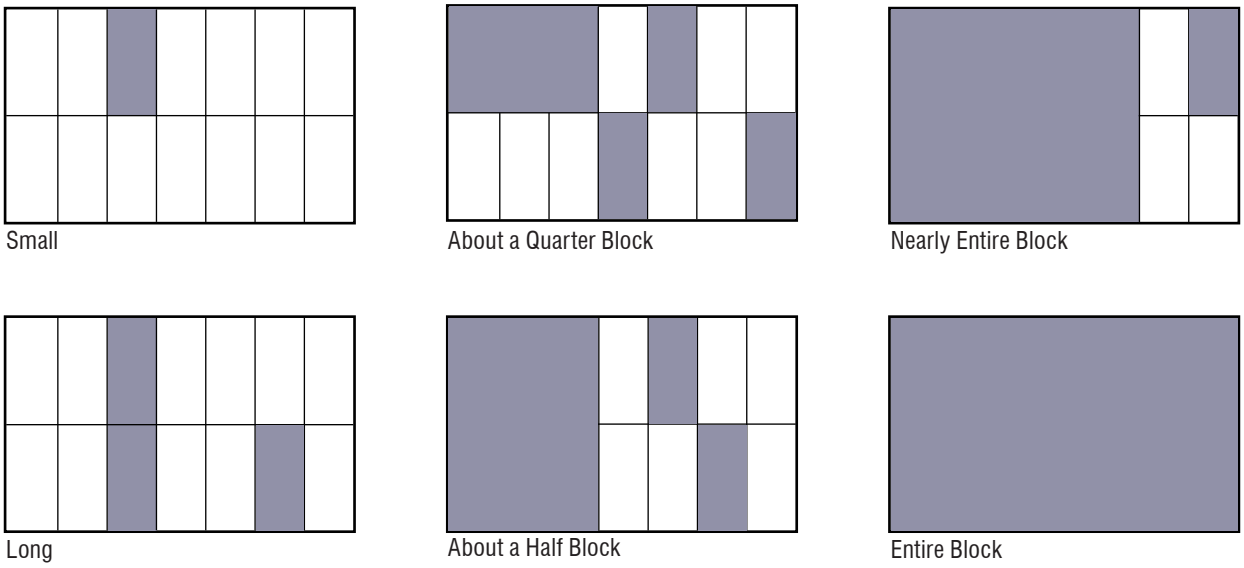


Figure 2.1.3: Vacany Consolidation Depending on the block, vacancies may occur sparse and spread out or dense and consolidated *(Allen 2015)*

Potential Improvement/Re-use Ideas

Art installations
Bocce ball court
Berry patch

Petting zoo
Skate park
Fall destination

Residential redevelopment
Stadium arena/complex
Urban vineyard

VACANCY PATTERN CLASSIFICATIONS

Vacant Parcel Assessment Scales & Context

Depending on the amount, size, and groupings of vacant parcels in a given area, the surrounding blocks can be assessed to see if there are any other large-scale patterns. These patterns can help when determining large or small scale improvements and re-use ideas.

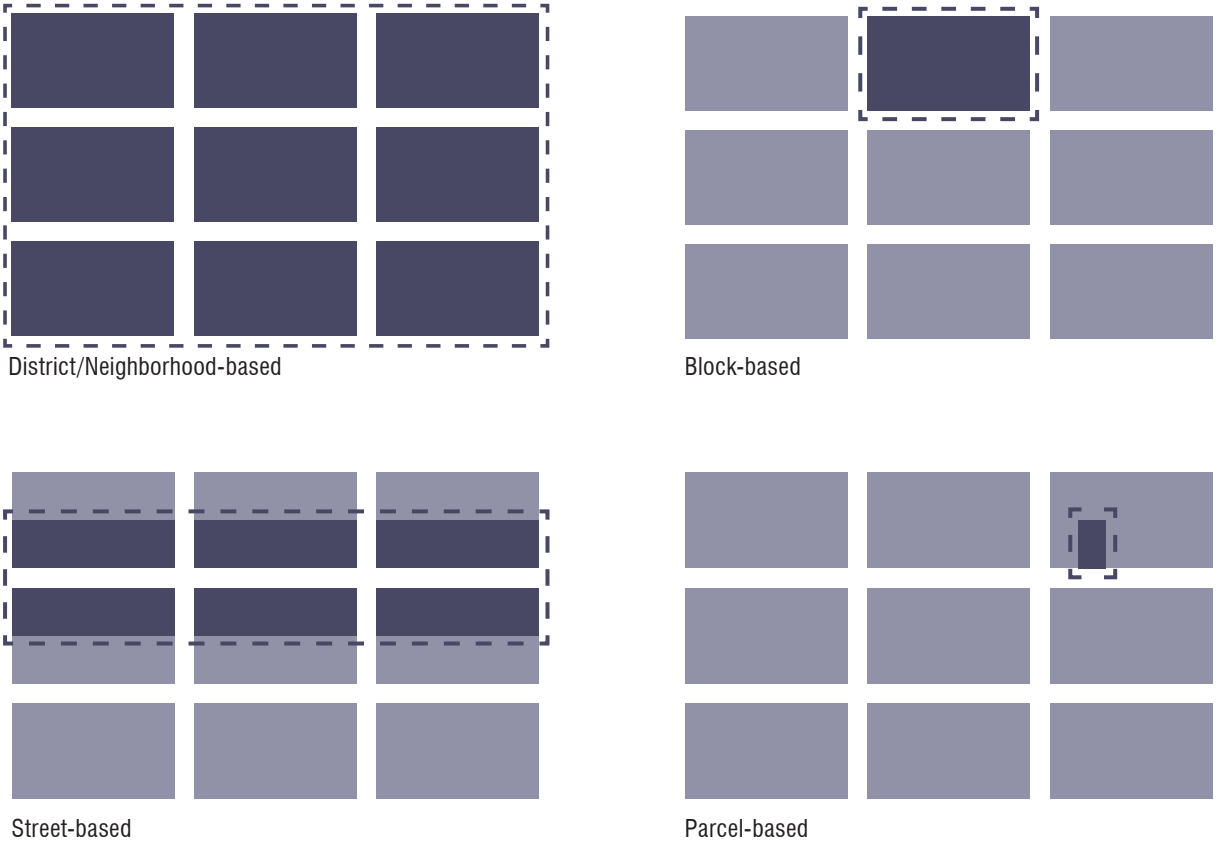


Figure 2.1.4: Vacancy Assessment Scales Once vacant parcels are located, the surrounding blocks should be assessed. This can provide opportunities for varying strategy scales *(Allen 2015)*

Potential Improvement/Re-use Ideas

Shooting range
Urban campground
Side lots

Urban play district
Mixed us district
Greenway extension

Daylighting Streams
Fishing network
Urban wetland

SITE CONDITION CLASSIFICATIONS

Vegetation

Vegetation can help and/or hinder the use of a site

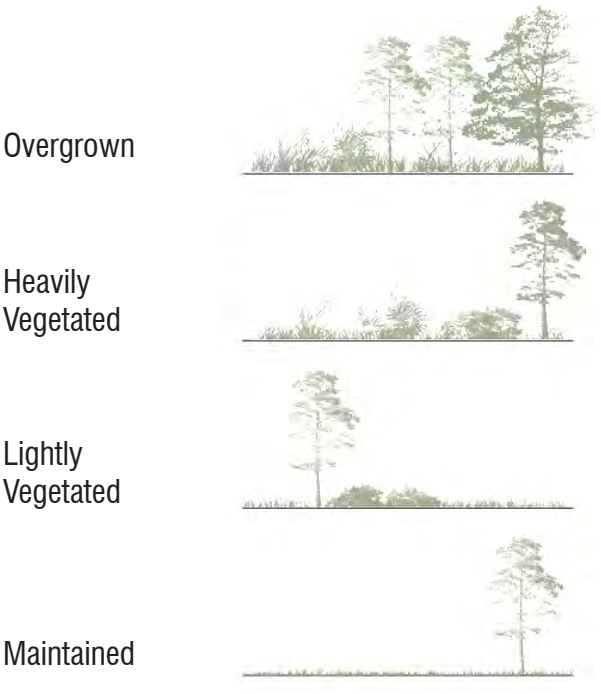


Figure 2.1.5: Vegetation Present planting conditions may change the use of the site. Maintenance of the site may be costly. *(Kellams 2015)*

Sun Exposure

Shade may be created by vegetation or built structures

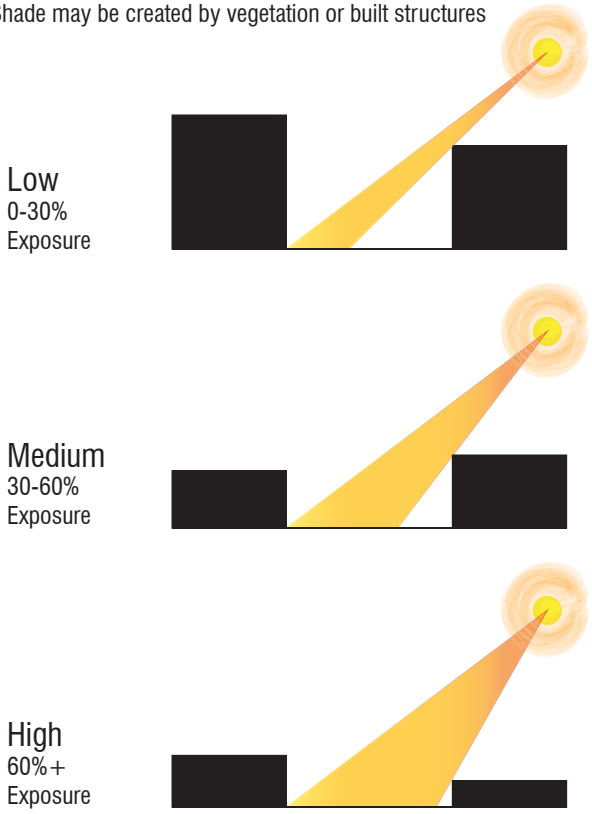


Figure 2.1.6: Sun Exposure Sun exposure may make or break a strategy, such as a urban vineyard. *(Kellams 2015)*

Potential Improvement/Re-use Ideas

Berry Patch
Coimmunity gardens
Hammock park

Alternative energy fields
Treehouse park
Greenway extension

Black walnut forest
Daylighting streams
Urban vineyard

SITE CONDITION CLASSIFICATIONS

Dumping on Site

Cleanup costs are generally influenced by dumping on site

Abandoned Vehicles

Trash/ Garbage

Building Material

Other

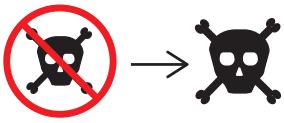
No Dumping

Soil Health*

Some soils may contain harmful chemicals. Soil contamination testing should be performed.

Contaminated

At Risk of Contamination



No Contamination

Nutrient Rich

*Evidence of contamination may be stains, abnormal coloring, and odors. Former land uses such as a gas stations, laundrymats, and junk yards are prone to soil contamination. The use of lead paint, typically around building footprints, should be taken into account.

Figure 2.1.7: Dumping on Site (Left) Dumping may influence the cost of clean up. Knowing the site's dumping condition may impact the decision to develop the site. *(Kellams 2015)*

Figure 2.1.8: Soil Health (Above) It is important to test the sites soil. Harmful chemicals may exist. *(Kellams 2015)*

Potential Improvement/Re-use Ideas

Phytoremediation
Junk playground
Design-build sites

Conservation community
Skate park
Urban play districts

Residential redevelopment

SITE CONDITION CLASSIFICATIONS

Water Access
Water may or may not be available and accessed on site

Present, Working

Present, Not Working

Not Present

Street to Parcel Level
Street level relation with parcel may influence its purpose

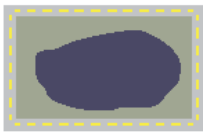
Parcel Above Street

Parcel Level with Street

Parcel Below Street

Water on Site
Water on site will influence the use of the site

Yes



No

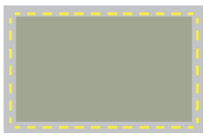


Figure 2.1.9: Water Access (Above Left) Water access can greatly influence the use of site. Water access will be important for virtually any build structure and/or plantings on site. *(Kellams 2015)*

Figure 2.1.10: Street to Parcel Level (Above) The relationship between the street and parcel can shape the use of the site. One possible example could be the creation of a bio swale that treats stormwater. *(Kellams 2015)*

Figure 2.1.11:Water on Site (Left) If water is present on site, a variety of unique strategies may be used. *(Kellams 2015)*

Potential Improvement/Re-use Ideas

Urban nursery
Team building/obstacle course
Dog park

Water park
Greenway extension
Ecological exploration

Urban wetland
Large-scale urban agriculture
Fishing network

2.2

VACANCY CLASSIFICATION: BUILDINGS

The classifications presented in this chapter defined abandoned buildings by size and former use. Conditions of these abandoned buildings will require collection of field data. In most cases this is a task yet to be done by the City. Chapter 4 presents some methods to facilitate this data collection. Building condition assessment will dictate whether abandoned buildings can be rehabilitated for future use or demolished.

Knowing more about abandoned building characteristics and condition will influence parcel redevelopment. As an example, could an abandoned commerical building be repurposed for residential lofts? These building classifications will help the City and potential developers analyze potential redevelopment options.

VACANT BUILDING CLASSIFICATIONS

Residential Buildings

Single Family Attached

Small
Medium
Large

Single Family Detached

Small
Medium
Large

Multi-Family

Small
Medium
Large

Apartment Buildings

Small
Medium
Large

Figure 2.2.1: Residential Buildings Exhisting structures should be taken into consideration because of potential resale value, opportunities to renovate, and other strategies requiring a structure. Building size and type will affect the potential use. *(Taylor 2015)*

Potential Improvement/Re-use Ideas

Art block
Vertical garden

Eco-village
Residential redevelopment

VACANT BUILDING CLASSIFICATIONS

Non-Residential Buildings

Places of Worship
Small
Medium
Large

Healthcare
Small
Medium
Large

Schools
Small
Medium
Large

Offices
Small
Medium
Large

Retail
Small
Medium
Large

Industrial
Small
Medium
Large

Figure 2.2.2: Non-Residential Buildings Different buildings with varying spatial organization and ammenities that affect their potential future uses. *(Allen 2015)*

Potential Improvement/Re-use Ideas

Art block
Vertical garden
Team building/obstacle course

Co-housing
Outdoor climbing gym

VACANT BUILDING CLASSIFICATIONS

Building Coverage on Parcel

=Building

Minimal Coverage
0-30%

Moderate Coverage
30%-60%

Large Coverage
60%-100%

Contex of vacant buildings should be taken into consideration. For example, if a large office building takes up the majority of its parcel and is in a dense urban setting, there would be no room for a parking lot. However, if a church or school occupies less than half of its parcel, there is opportunity for activity space in the lawn. In this case, one would assume that the vacant school or church would be fixed so that it becomes a usable building again.

Figure 2.2.3: Building Coverage Diagrams show relative size of the building in relationship to the parcel. *(Allen 2015)*

Potential Improvement/Re-use Ideas

Recreational sport complex
Art installations
Church events

Park or green space
Skate park
Co-housing

Mixed use development
Large scale urban agriculture
Riverfront development extension

2.3

VACANCY CLASSIFICATION: LOCATION EVALUATION

The surrounding context of a vacant parcel is highly influential to the condition of a parcel and possible development. In this chapter we break down the parcel context into individual factors. These factors can help or hinder possible strategies for redevelopment. Some of the location evaluation classifications include market value, crime rates, and roadway adjacency. Location factors should be assessed before the formulation of any redevelopment option.

CONTEXT CONSIDERATION

Land Ownership

A High Percentage of Land is Owned by the LRA and McEagle Development

Figure 2.3.1: Private Property (Above)
(Champion-america.com 2015)

Private

Parcels of land in the St. Louis area under private ownership are maintained and operated by individual property owners. These properties can be redeveloped on a site-by-site basis by the land owner. If redevelopment cannot be completed due to neglect or abandonment, the land may be acquired by the LRA or other ownership.

Figure 2.3.2: Seal of St. Louis (Above) *(Stlouis-mo.gov 2015)*

LRA

St. Louis' Land Reutilization Authority is the city land bank authority. The LRA acquires properties through donation and title claims on neglected or abandoned properties. Properties in this category are city owned and cost the city money in ownership and maintenance. These properties should be sold for redevelopment.

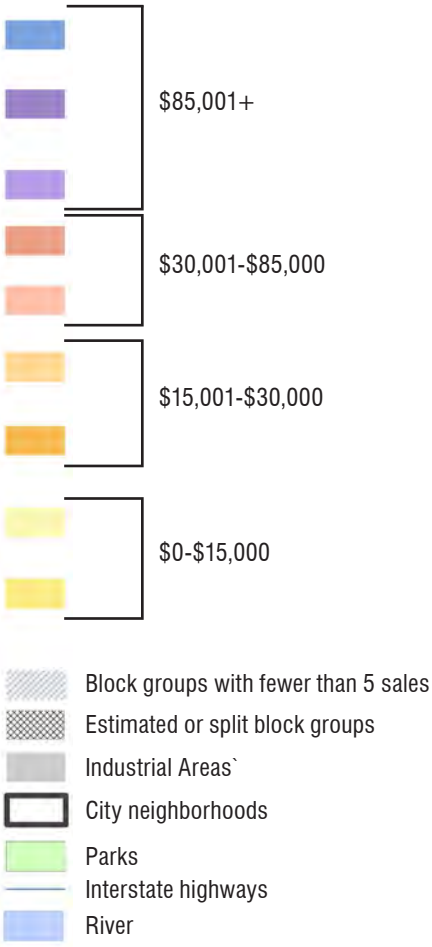
Figure 2.3.3: McEagle Development (Above) *(McEagle 2015)*

McEagle

McEagle is a real estate development company that has acquired several tracts of land in the St. Louis area. These properties can be redeveloped into mixed-use development, or other city center development to promote development near McKee owned property.

CONTEXT CONSIDERATION

Residential Market Value



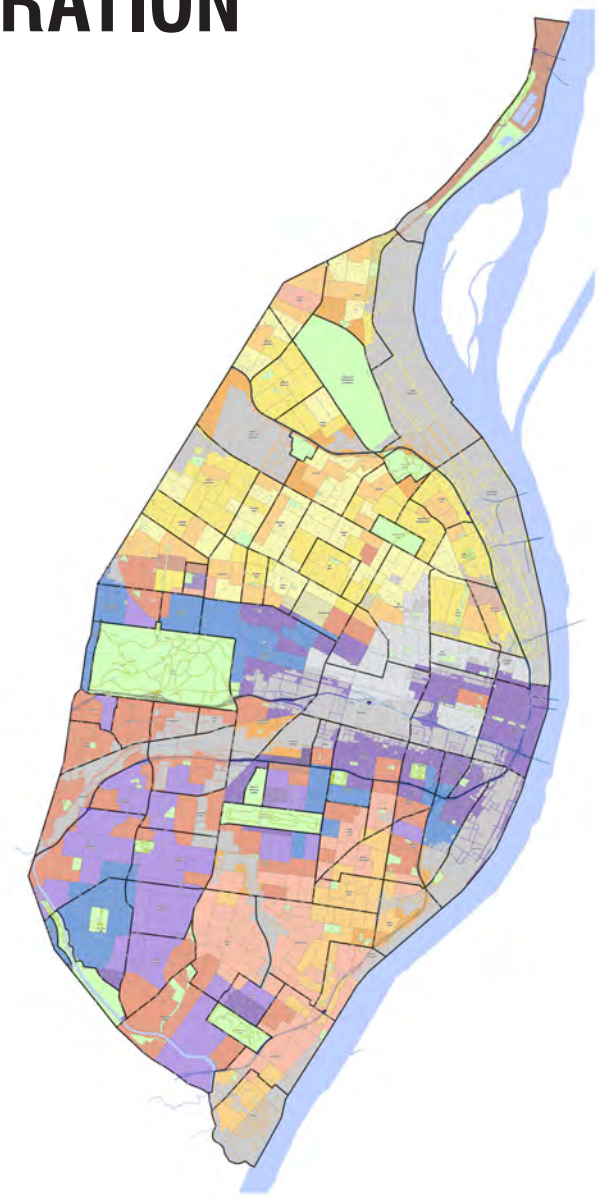


Figure 2.3.4: Residential Market Value
(City of St. Louis Planning and Urban Design Agency, 2014)

Potential Improvement/Re-use Ideas

Art block
Cleanup projects
Apiary (bee yard)

Incentivized development in lower market value areas
Co-housing concentrated living in mixed use buildings in high market value areas

Urban wetland
Stadium/arena complex
Riverfront development extension

CONTEXT CONSIDERATION

Crime Distribution

Crime Reported Per 4000 Residents

Figure 2.3.5: Crime Density Map Graphically shows density of crime in St. Louis *(Arcgis.com 2015)*

Potential Improvement/Re-use Ideas

Cleanup projects
Community garden
Recreational sport complex

Park or green space
Urban play district
Incentivized development

Black walnut forest
Residential redevelopment
Urban vineyard

CONTEXT CONSIDERATION

Concentrated Areas of Children and Senior Citizens

Age of population is important to consider when taking in the different needs of different ages.

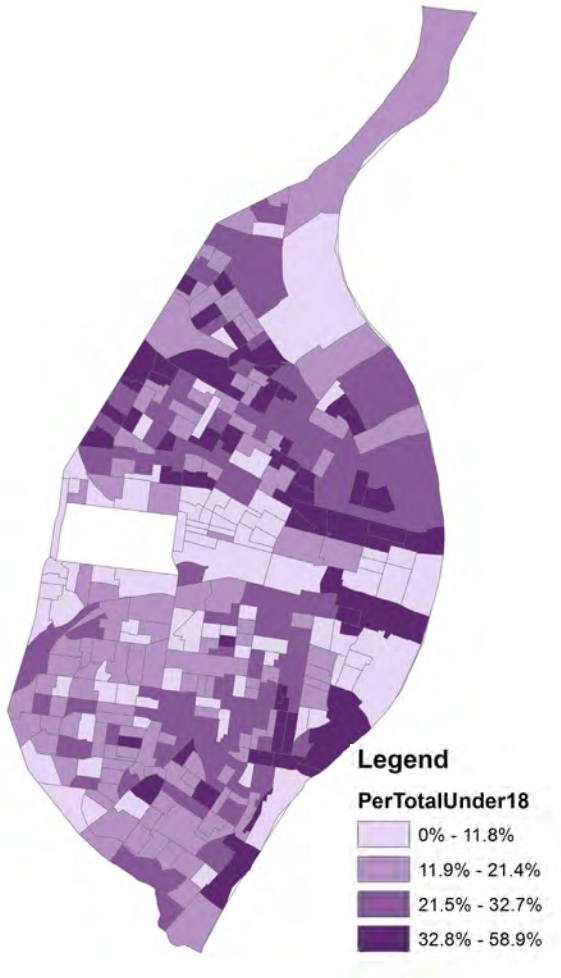


Figure 2.3.7: Age of Population Under 18 (Above)
Percent of the population under 18 *(GIS 2015)*

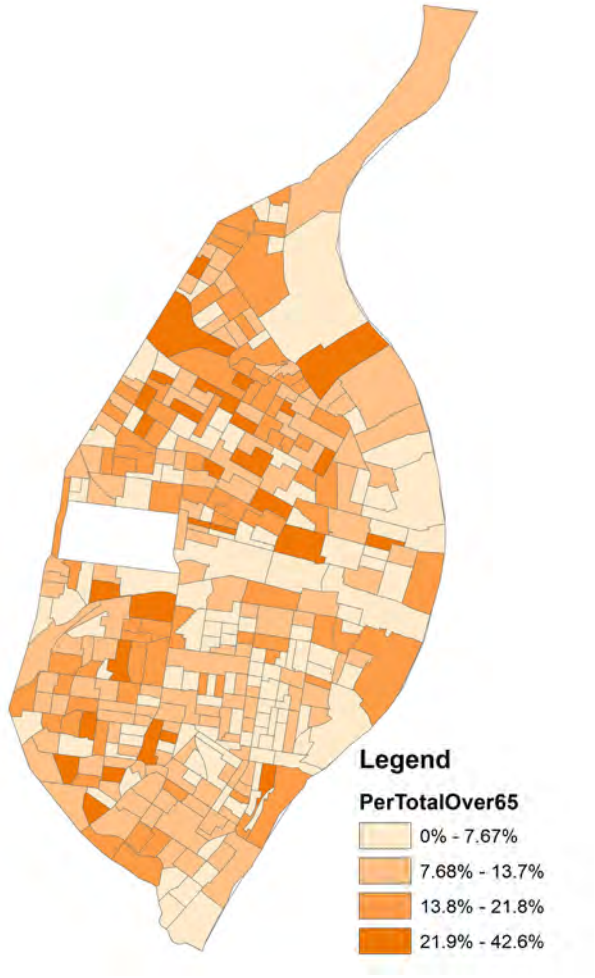


Figure 2.3.6: Age of Population Over 65 (Above)
Percent of the population over 65 *(GIS 2015)*

Potential Improvement/Re-use Ideas

Educational programs
Dog parks
Community gardens

Treehouse park
Mixed use district
Residential redevelopment

Outdoor climbing gym
State park
Urban play district

PROXIMITY CONSIDERATION

Proximity to Future or Emerging Development

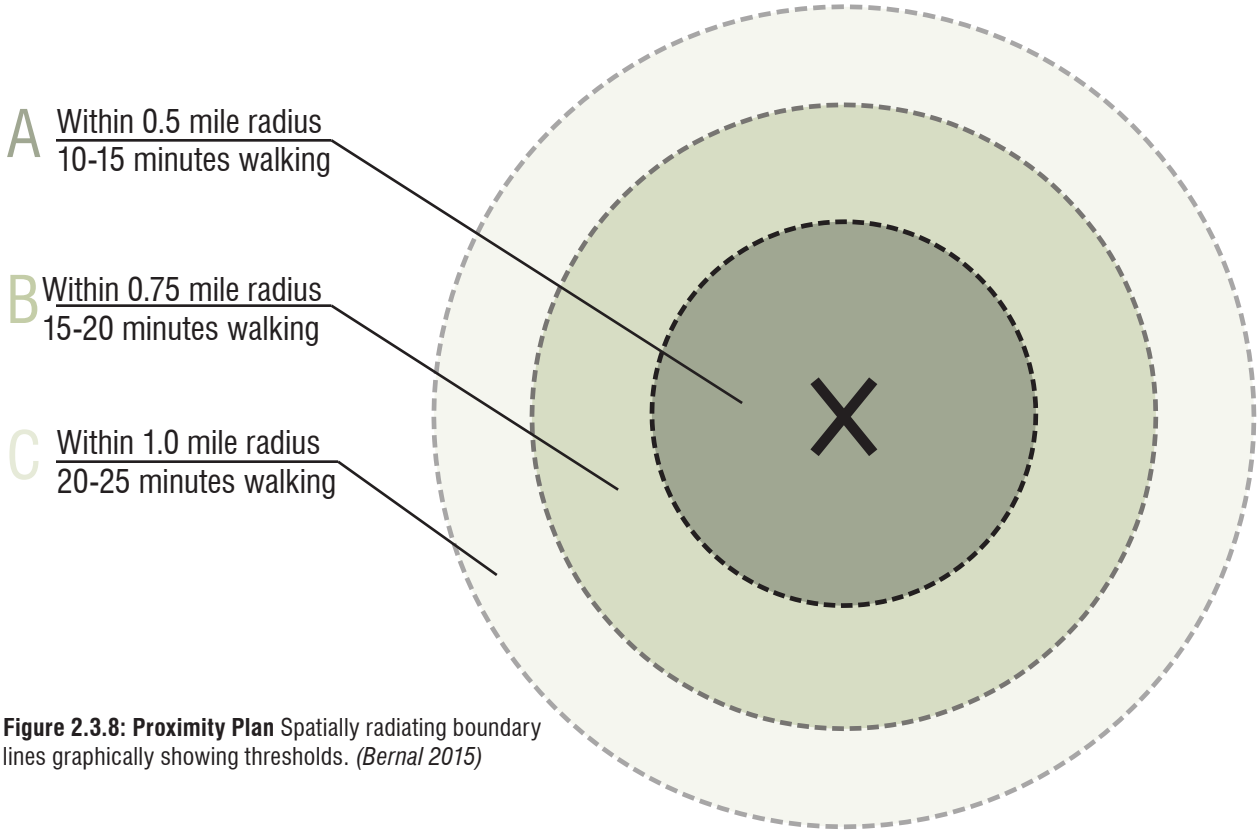


Figure 2.3.8: Proximity Plan Spatially radiating boundary lines graphically showing thresholds. *(Bernal 2015)*

Schools

A Within .25 mile radius

B Within .5 mile radius

C Within .75 mile radius

Employment Centers

A Within 5 miles radius

B Within 10 miles radius

C Within 15 miles radius

Potential Improvement/Re-use Ideas

Bike share locations
Design-build sites
Educational programs in close proximity to schools

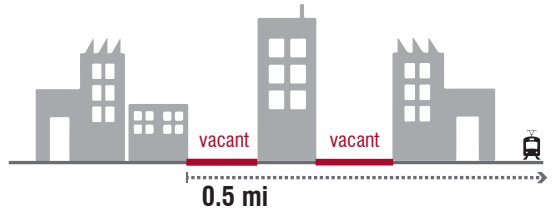
Efficient public transit
Efficient bike lanes and pedestrian paths
Co-housing concentrated living in mixed use buildings

Large Scale Residential Redevelopment

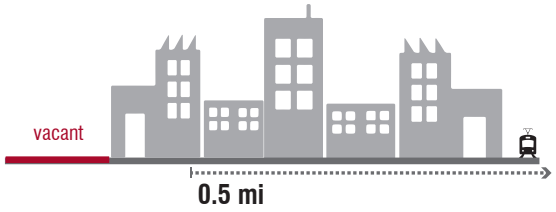
PROXIMITY CONSIDERATION

Proximity to Transportation Hub

Within 1/2 mile (walking distance) of Existing and Proposed MetroLink station

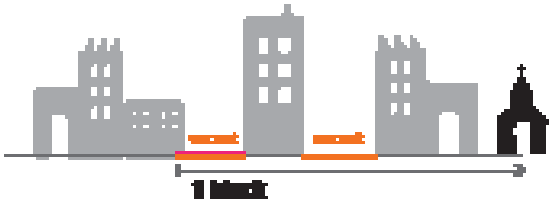


Not within 1/2 mile (walking distance) of Proposed MetroLink station



Proximity to Religious Institutions

Within 1 block (walking distance) of successful religious institute



Not within 1 block (walking distance) of successful religious institute

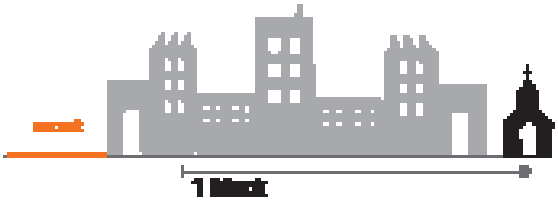


Figure 2.3.9: Proximity Section Views Vacant lots within the threshold should acquire a higher priority for development. *(Knight 2015)*

Potential Improvement/Re-use Ideas

Church events
Community gardens

Car share lots
Mixed use district
Complete streets

PROXIMITY CONSIDERATION

Proximity to Future or Emerging Development

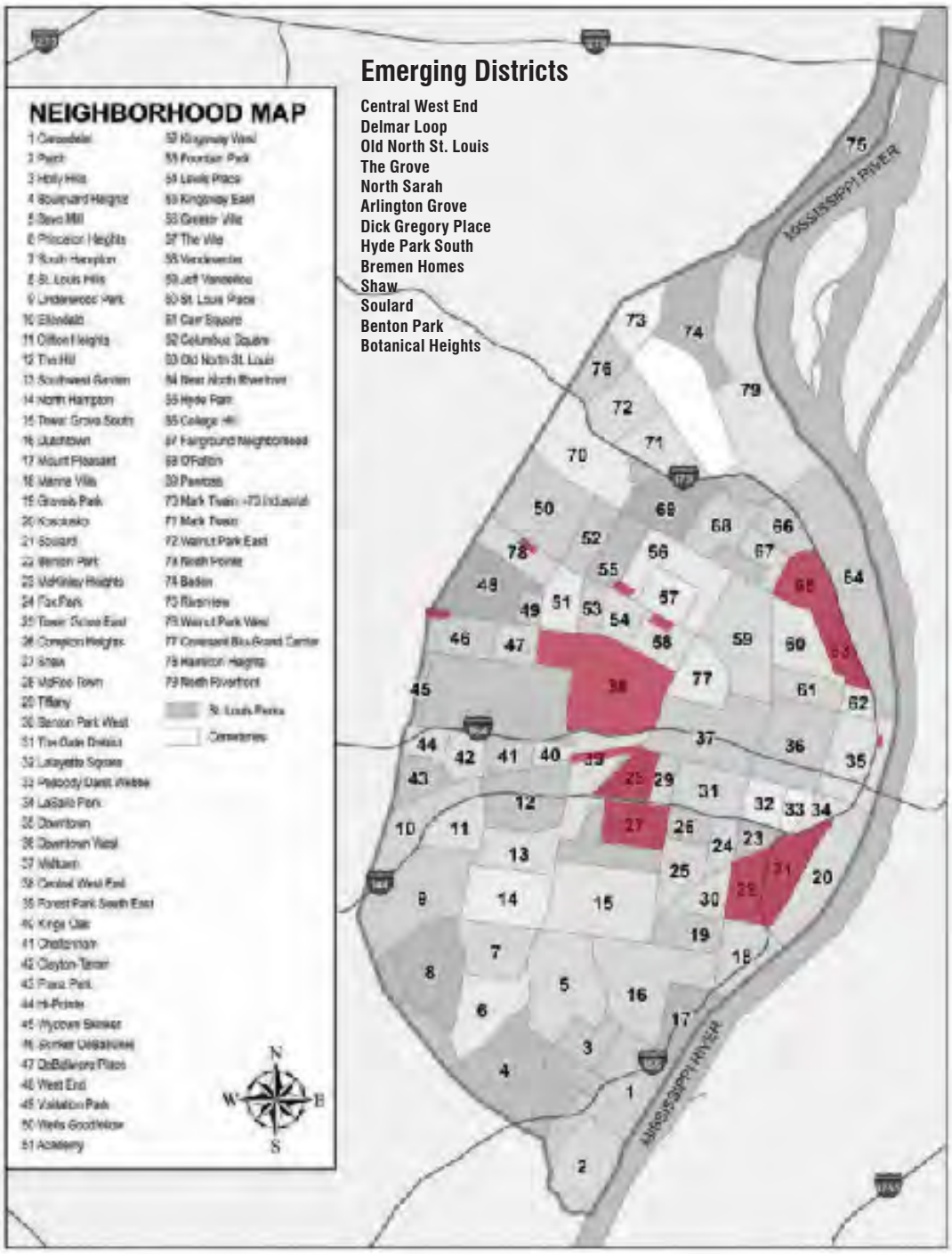


Figure 2.3.10: Proximity to Future or Emerging Development
(Bernal, adapted from *City of St. Louis Planning and Urban Design Agency 2014)*

PROXIMITY CONSIDERATION

Proximity to Transportation Hub

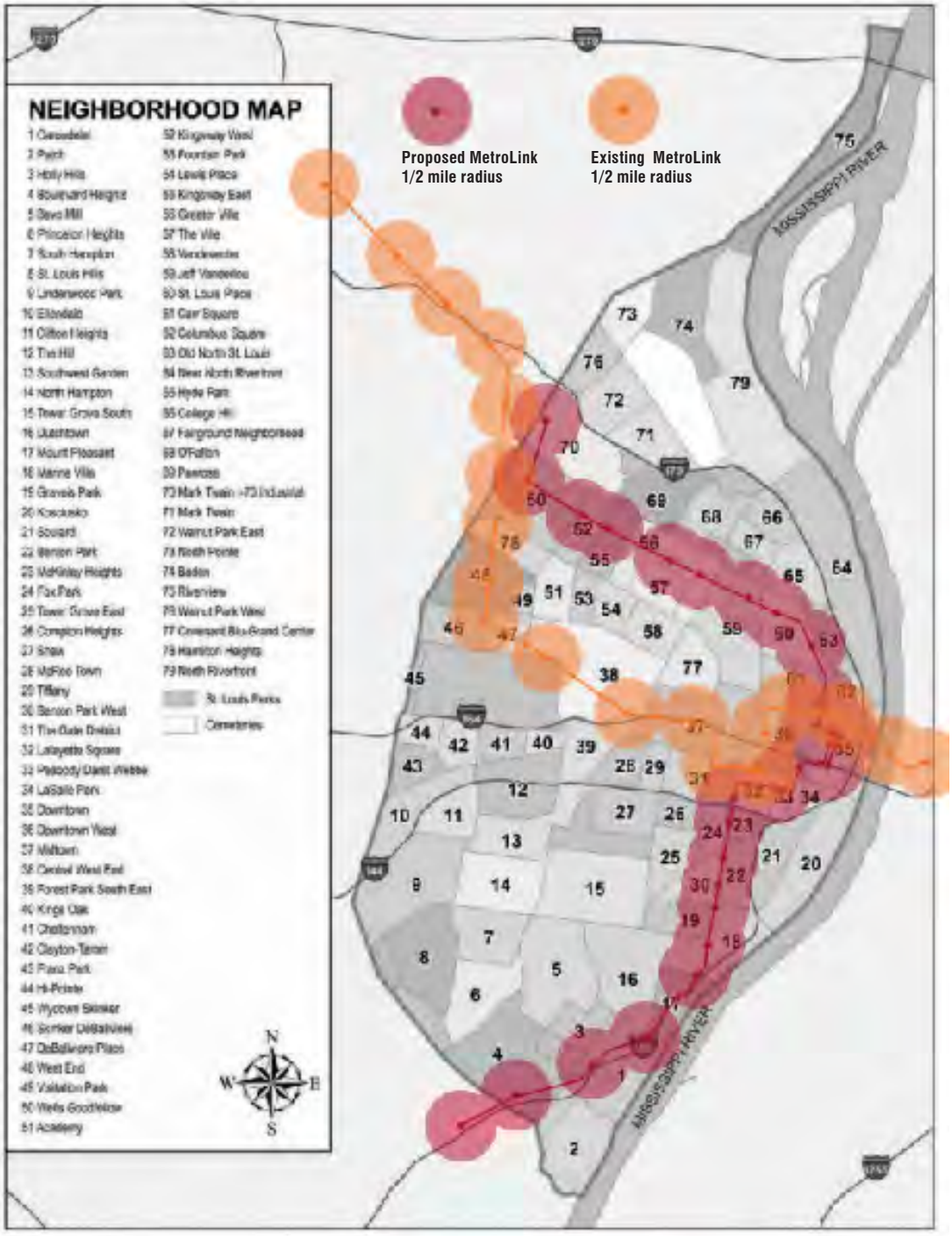


Figure 2.3.11: Proximity to Transportation Hub
(Bernal, adapted from *City of St. Louis Planning and Urban Design Agency 2014)*

PROXIMITY CONSIDERATION

Adjacency to Type of Roadway

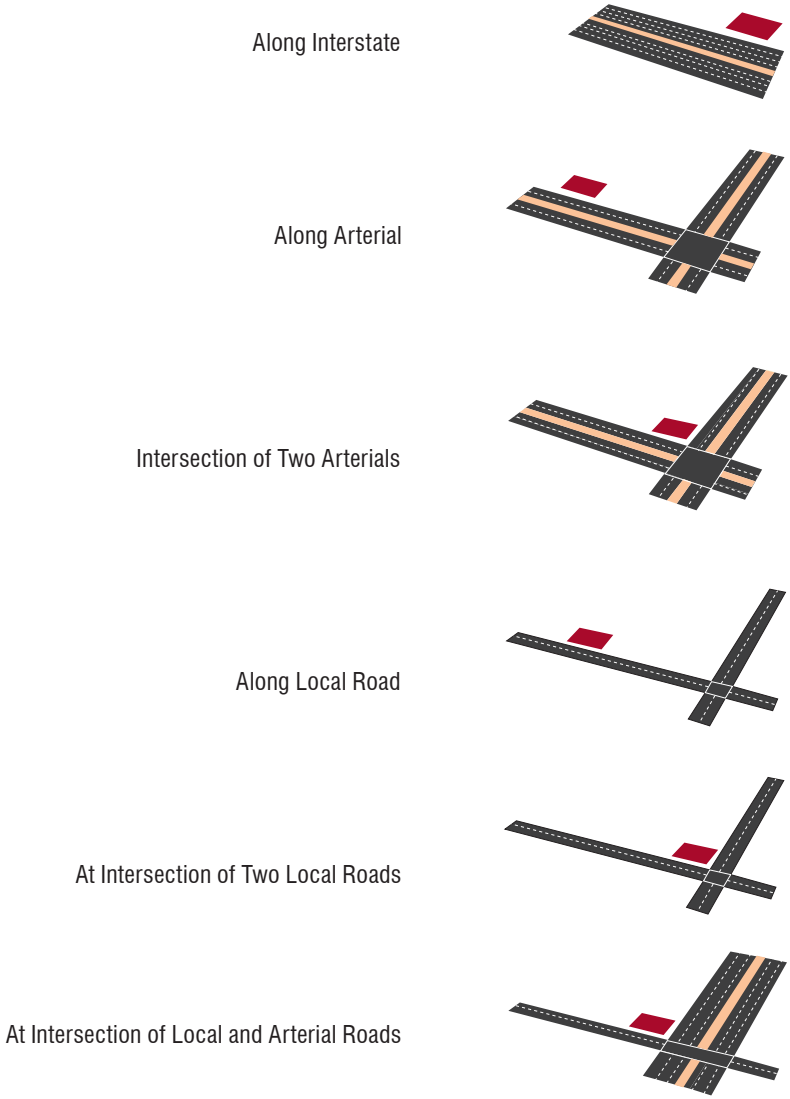


Figure 2.3.12: Adjacency to Road Types. A graphic illustrating the various locations of a vacant lot in relations to road types. *(Knight 2015)*

Potential Improvement/Re-use Ideas

Smaller/residential scaled strategies Located along local roads

Medium scaled strategies located along arterial roads

Larger/industrial scaled strategies located along interstate

2.4

VACANCY TYPOLOGY: PARCEL TYPES

In the Vacancy Evaluation Framework (Section 1.4), vacancy is divided into five defined types. These types consider vacant parcel site conditions, proximity, abandoned buildings, and location factors to arrive at a synthesized and simpler vacant parcel description to be matched to potential enhancement, or redevelopment options. The Vacancy Evaluation Framework may also be used by property developers in reverse process order. Using these “types”, a developer will be able to determine what vacant parcel is most suitable for a desired development project.

VACANT PARCEL TYPES

Parcel types represent a synthesis and simplification of the many parcel classification schemes that were used to characterize empty lots, abandoned buildings, and existing site conditions. This simplification allows the vacant parcel inventory to be considered in broad groupings which can be more easily matched to classes of ideas for re-purposing vacant parcels. The long-range goal of this typology is to computer automate the first portion of the Vacancy Evaluation Framework to handle thousands of vacant parcels in order to match "types" with potential "strategies" to arrive at preferred repurposing options. This will be done relative to the Strategic Land Use Plan (SLUP) and considers community input during the evaluation step.

These vacant parcel "types" represent a first pass at selecting and prioritizing what vacant parcel characteristics might be most important to begin grouping vacant parcels for similar treatment strategies. Several questions exist: Did the criteria defining "types" lead to the most appropriate synthesis? Should the criteria be standardized across "types" or be more specific to each? How easy will it be to adapt this criteria to computerized processes leading to the generation of metrics and forecasting?

Additionally, more thinking and evaluation is required to ascertain if this is the best or most efficient approach to dealing with thousands of vacant parcels related to specific goals (most of which are centered around trying to locate interested buyers to reduce the inventory and carrying costs). A series of vacant lots in various locations needs to be tested to see how well the typology works or where it needs to be modified. Additionally, collection of field data is required to better document parcel conditions. This is most important for vacant parcel Types 1-3.

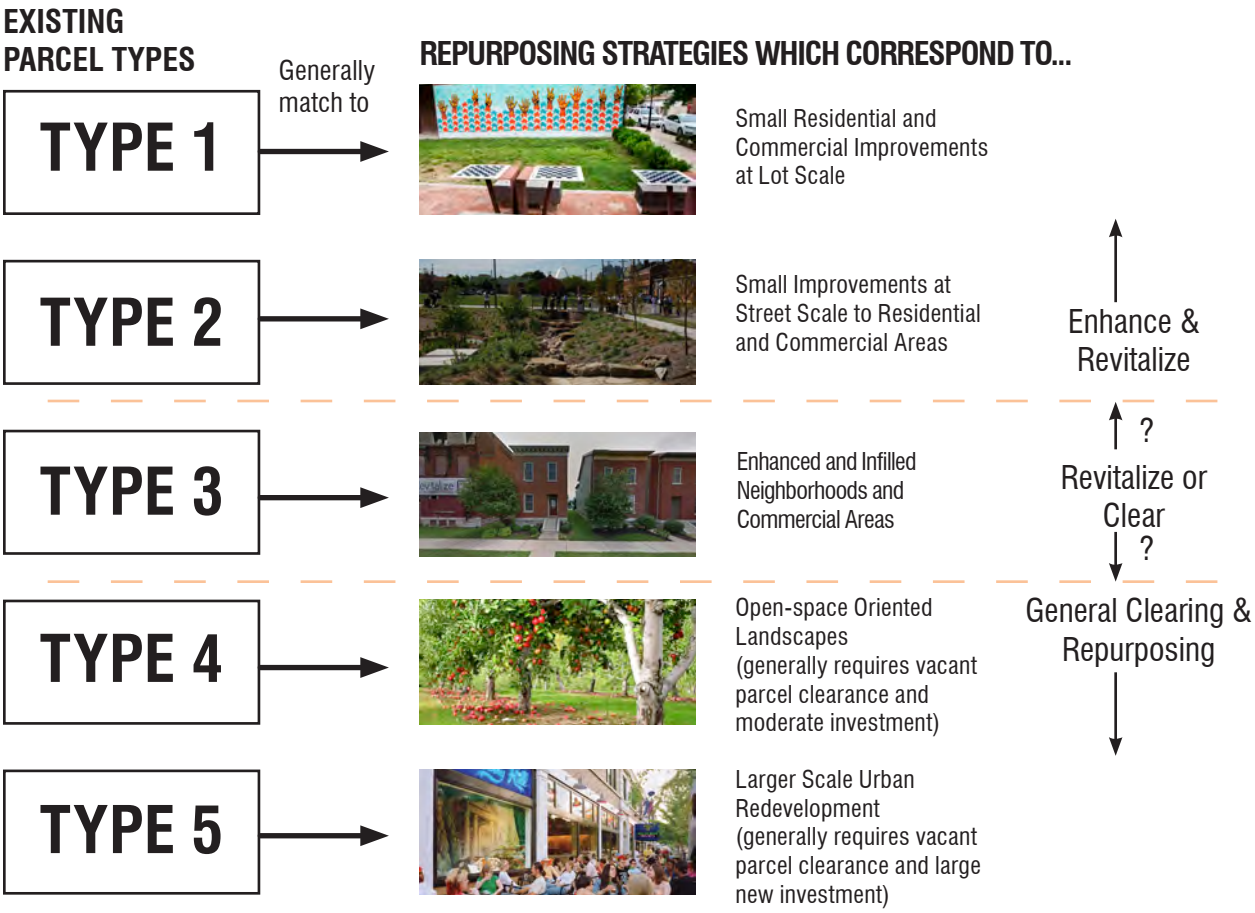


Figure 2.4.1: General Type Examples *(Allen & Kellams 2015)*

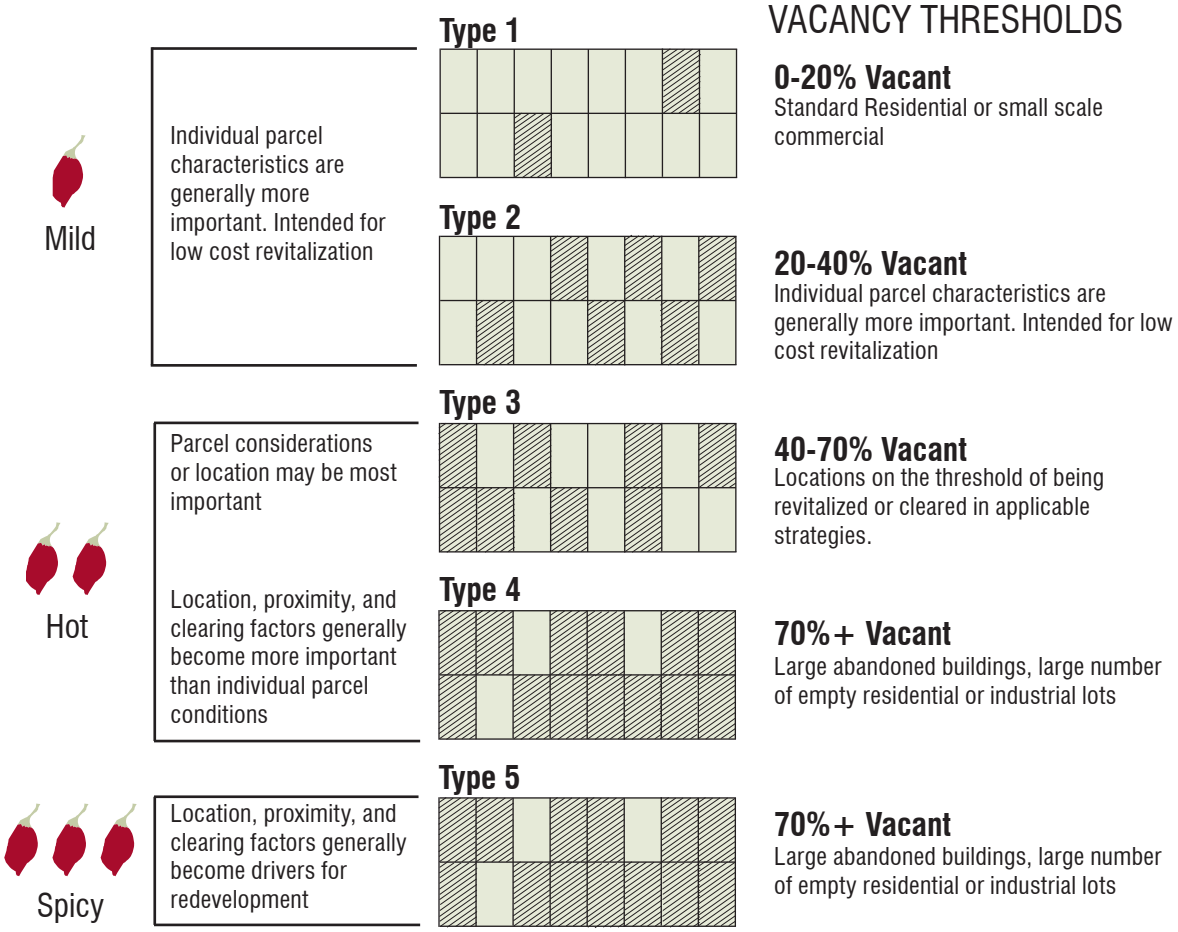


Figure 2.4.2: Vacancy Threshold *(Taylor 2015,* adapted from *Hahn 2015)*

TYPE 1

Description: Characterized by a few scattered empty lots or abandoned buildings where the overall block is still intact.
Goal: Prevent further decline and improve the quality of life for remaining residents, through short term low cost revitalization.

Low Vacancy Density
0-20% block vacancy

Scattered Vacancy Pattern
Vacant parcels are generally scattered or isolated

Small Lot Size
Small residential or small commercial lot

Current Residential or Commercial Land Use
Surrounded by similar land use

Less Desirable Location Factors
Parcel is in an undesirable location based on context and proximity factors

Figure 2.4.3: Type 1 *(Taylor 2015)*

TYPE 2

Description: Characterized by moderate scattering of empty lots or abandoned building, where the overall block is moderately intact.
Goal: Prevent further decline and continue improving the quality of life for remaining residents, through short to midterm time frame and low to medium cost for revitalization.

Low to Medium Vacancy Density
20-40% block vacancy

Scattered Vacancy Pattern
Vacant parcels are generally scattered or isolated

Medium to Large Sized Lot
Medium-Large sized residential or non-residential lot

Mixed Land Use
Occupied or surrounded by residential/commercial development

Low Market Value
Resale value of parcel is low

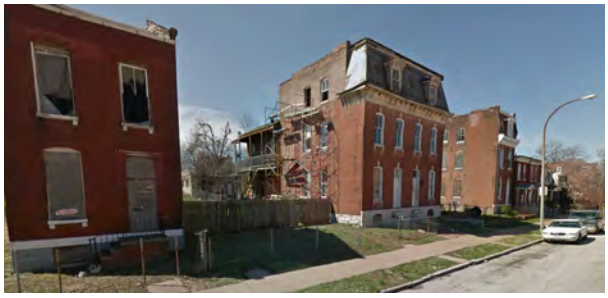


Figure 2.4.4: Type 2 *(Allen 2015)*

TYPE 3

Description: Characterized by moderate scattering of empty lots or abandoned buildings, where the overall block is moderately intact.
Goal: Assess the likelihood that the area can be significantly improved or requires clearing to support other beneficial land uses.

Medium to High Vacancy Density
40-70% block vacancy

Clustered Vacancy Pattern
Vacant parcels are clustered in multiple groups

Less Favorable Site Conditions
Parcel has inadequate utilities, potential contaminated soil, and overgrown vegetation

Less Desirable Location Factors
Parcel resides in a less desirable location based on context and proximity factors

Low Market Value
Low resale value of parcel

Figure 2.4.5: Type 3 *(Taylor 2015)*

TYPE 4

Description: Characterized by a high density of empty lots or abandoned buildings, where the overall block is deteriorated to the point where long sustainability is questionable.
Goal: Consider widespread clearing and consolidation to transition toward natural landscapes, which may support large scale green infrastructure or productive uses.

High Vacancy Density
70%+block vacancy

Clustered Vacancy Pattern
Vacant parcels are clustered in multiple groups

Less Favorable Site Conditions
Parcel has inadequate utilities, potential contaminated soil, and overgrown vegetation

Less Desirable Location Factors
Parcel resides in a less desirable location based on context and proximity factors

Current Non-Residential Land Uses
Lot is occupied or surrounded by institutional, industrial, and commercial development

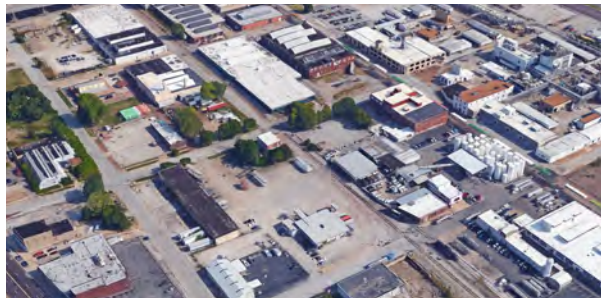


Figure 2.4.6: Type 4 *(Bernal 2015)*

TYPE 5

Description: Characterized by a high density of empty lots or abandoned buildings, where the overall block is deteriorated to the point where long sustainability is questionable.
Goal: Consider widespread clearing and consolidation to transition the land toward more urban development at a district scale.

High Vacancy Density
70%+ block vacancy

Clustered Vacancy Pattern
Vacant parcels are clustered in multiple groups

Less Favorable Site Conditions
Parcel has inadequate utilities, potential contaminated soil, and overgrown vegetation

More Desirable Location Factors
Parcel resides in a more desirable location based on context and proximity factors (adjacent to an high investment node, etc)

Current Low to Medium Market Value
High resale value of parcel may be achieved once intervention has occured

Figure 2.4.7: Type 5 (*Bernal 2015*)

CHAPTER 2: VACANCY TYPOLOGY CONCLUSIONS

This chapter introduced a system of classifications intended to be used as a tool to characterize vacant parcels owned by the City of St. Louis or private entities. These classifications are merged into a simplified typology scheme. Vacant parcel "types" can then be matched to general categories of enhancement or redevelopment options. The typology criteria are an initial attempt meant to be reviewed, tested, and modified by the St. Louis Planning and Urban Design Agency. This part of the larger Vacancy Evaluation Framework (Section 1.4) has the potential of being computer automated to handle thousands of vacant parcels.

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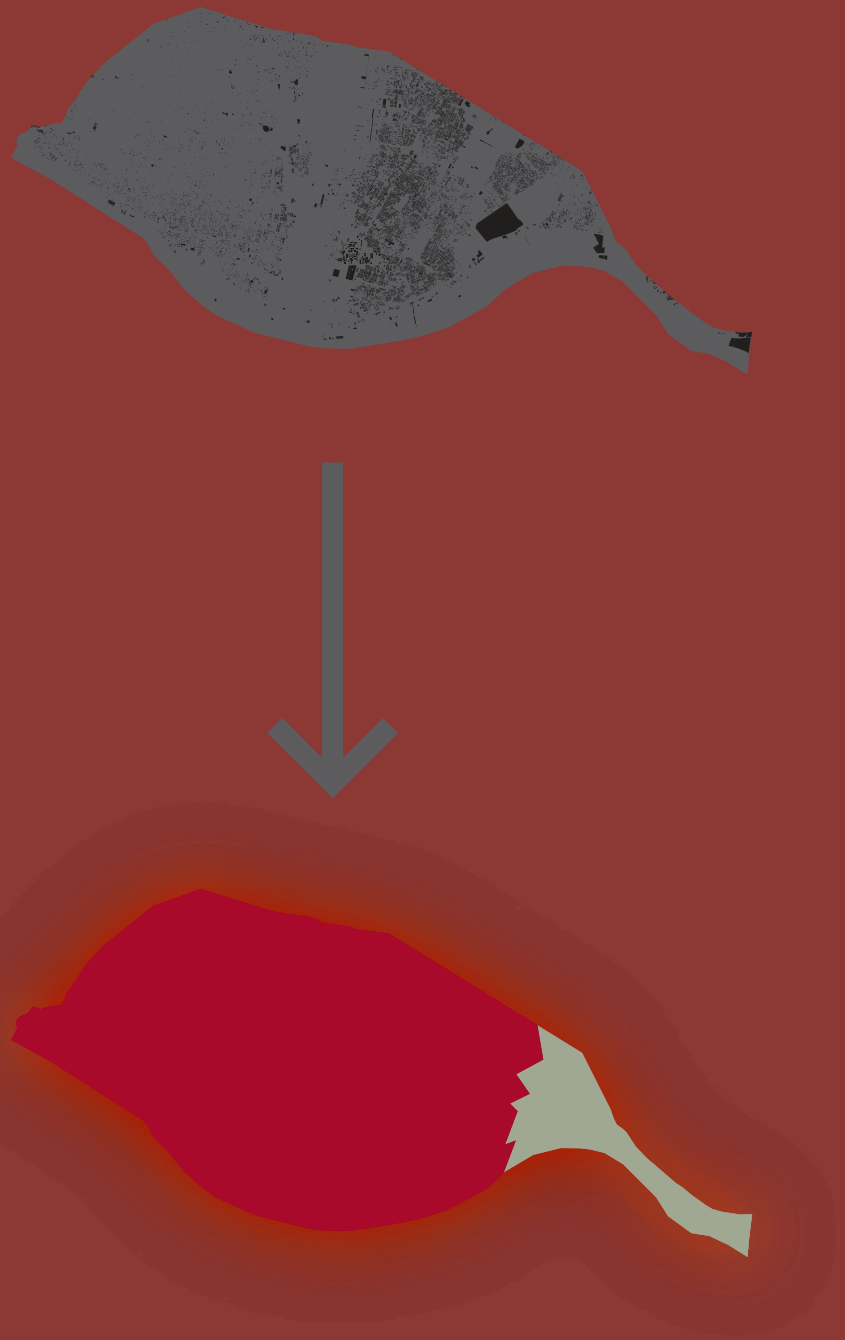
3

REPURPOSING VACANT PARCELS



CHAPTER INTRODUCTION

This section outlines strategies and ideas for repurposing vacant parcels. Community leaders, alderpeople, city officials, community groups, and individual citizens are to be inspired and challenged by these strategies. How can St. Louis repurpose vacant parcels to create community assets? Where should investment be located? What current community assets can be utilized? Ideas considered were strengthened by relating them to community goals, aspirations, dilemmas, and opportunities as identified through research, critical mapping, and workshop participants (see Section 1.3). The highest-rated idea in the workshop was to "change the mindset." These ideas were created to help instigate that change. Instead of viewing high levels of vacancy in St. Louis as a liability, we chose to see it as an opportunity—an opportunity for new forms of recreation, entertainment, job opportunities, and transportation options.

Ideas developed by the group as a whole were synthesized, prioritized, and hybridized to create six detailed strategies. Each of the six strategies carefully considers how the strategy will payoff for the people/community. In addition to these six strategies, an encyclopedia of ideas was created to provide quick examples of creative options and help interested groups or individuals think about the possibilities and define their own strategies for vacant lots.

3.1

REPURPOSING VACANT PARCELS: OVERVIEW

This subchapter outlines the scale used to organize strategies and ideas. Within this chapter are over 60 ideas on how to address the issue of vacancy and abandonment in St. Louis. These ideas are organized on the Spice Scale, ranging from Mild to Hot to Spicy. Each different spice category has different requirements and factors related to idea compatibility. More detail regarding the Spice Scale can be found in the following pages.

This scale is intended to be used to provide a better understanding of the different range of projects and ideas that can be implemented to address vacancy. It shows that even the smallest ideas can make a difference, and that anyone - community members, alderpersons, councilmembers, or others can band together and begin to make changes within their own city.

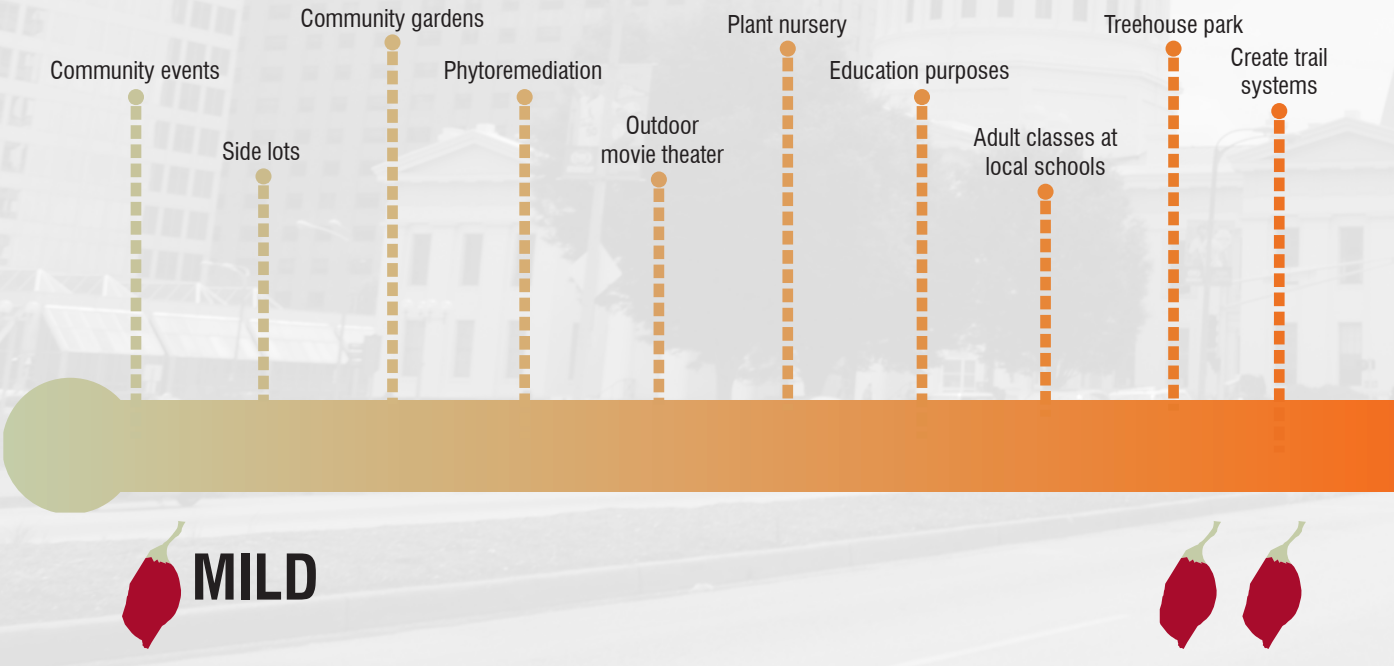
SPICE SCALE OF IDEAS

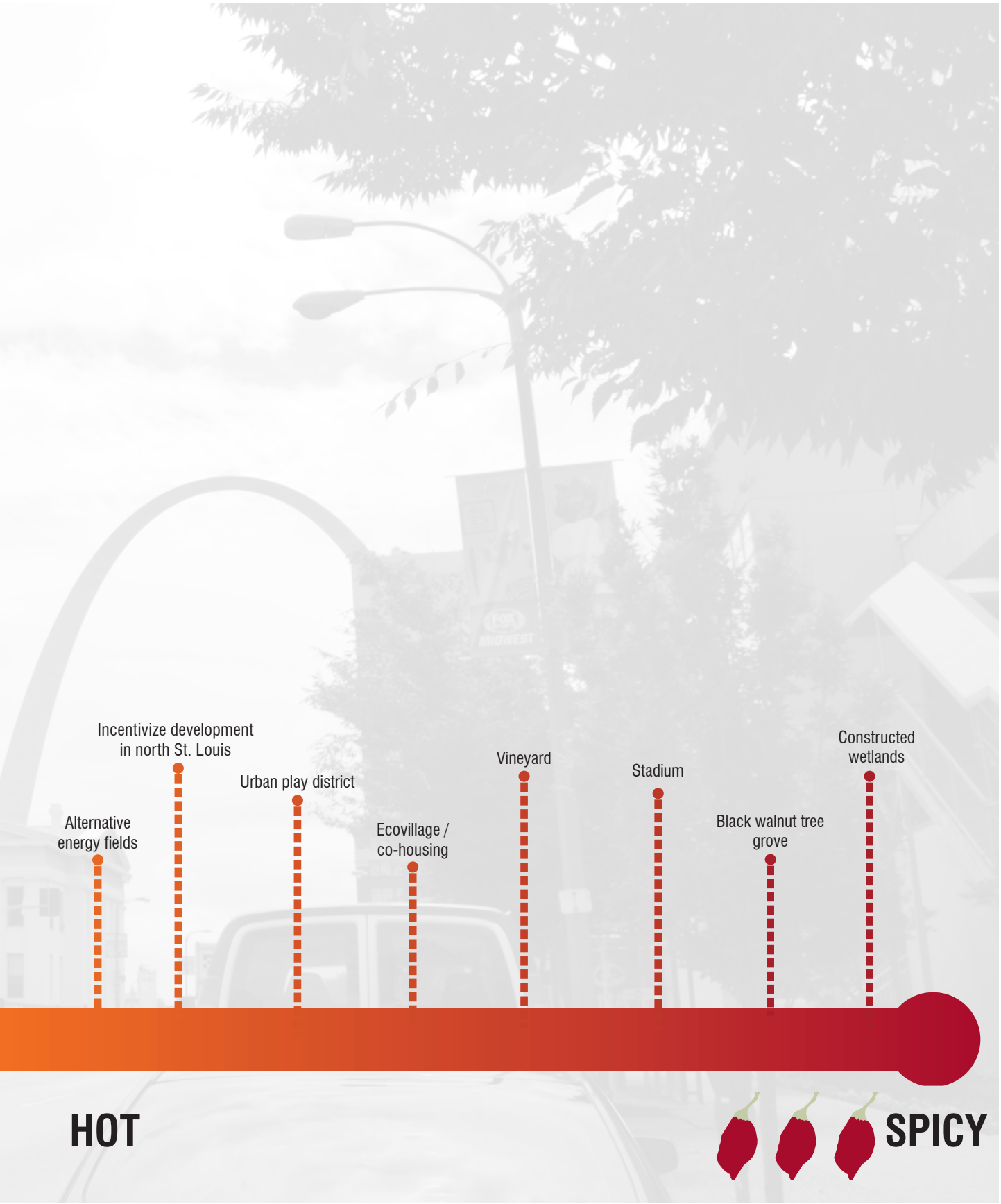
In order to create a hierarchy of ideas for vacant parcels, we created a spice scale that divides the ideas into three categories; mild, hot, and spicy. This idea originates from the shape of the city of St. Louis which resembles a chili pepper.

Mild ideas designate land use and are quick and easily implemented. Ideas operate at grassroots and overall have very few resistance factors. Little or no policy change is needed for mild ideas.

Hot ideas evaluate vacant parcels on a block scale or larger. Strategies in this category often involve public and private partnership. They take more time and planning to implement compared to mild strategies.

Spicy ideas are the most ambitious of the presented ideas and include long term solutions. Development opportunities for spicy ideas are found on parcels presenting consecutive vacancies and my involve relocation incentives.




Alternative energy fields
Incentivize development in north St. Louis
Urban play district
Ecovillage / co-housing
Vineyard
Stadium
Black walnut tree grove
Constructed wetlands
HOT
SPICY

3.2

REPURPOSING VACANT PARCELS: EXAMPLE STRATEGIES

The pages in the following subsection show a more in-depth look at six ideas to address vacancy and blight in the City of St. Louis: Community Events, Churches, Urban Play Districts, Black Walnut Grove, Alternative Energy, and Constructed Urban Wetlands. These ideas range from mild to hot to spicy on the Spice Scale, and provide a more detailed explanation as to how each method can be applied to the city and what benefits are offered.

In addition to the goals and benefits of each idea, within each method there is an Opportunities Matrix, supporting images, as well as relating the idea or strategy back to Chapter 2: Vacancy Typology. The vacant lot types from the previous chapter help organize and single-out parcels with specific qualities that are best suited for specific strategies or ideas.

COMMUNITY EVENTS

Figure 3.2.1: Food Truck Park. Community events such as food truck parks can be used to spark economic activity and create a destination within a neighborhood. *(Fiala 2015)*

GOALS:

- Create strong sense of community
- Encourage participation in neighborhood events
- Attract people to new areas of the city
- Increase economic activity
- Change in perception of neighborhoods with high vacancy

BENEFITS

There are a wide variety of events ranging from larger-scale activities such as concerts and festivals to small-scale activities like an outdoor yoga class or small farmer's market. Examples of community events include, but are not limited to 5k Fun Run/Walks, concerts, pop-up shops, church events, cleanup projects, and more.

For example, in the image pictured above, a food truck park is shown. On a small to medium sized vacant parcel, local businesses are able to drive their food trucks onto the parcel and open them for business in a community that may have never tried that particular restaurant before. This creates new business for the restaurant while also creating economic activity in an area that has little retail. These food trucks may also attract visitors from other nearby neighborhoods as well as the rest of the city. This can be implemented at a relatively low cost by recycling found materials as furniture, such as mismatched chairs and cable spool tables. Inexpensive string lights can be used as lighting on the site, and gravel can be used as the ground material.

Figure 3.2.2: Vacancy Requirements for Community Events. Conditions required for community events in vacant parcels can be found in many neighborhoods including the O'Fallon neighborhood. *(Knight 2015)*

These kind of grassroots community events are important because part of regenerating a community is instilling a sense of ownership and pride in one's neighborhood, according to Andrew Smith in "Events and Urban Regeneration: the Strategic Use of Events to Revitalize Cities." Smith also states that community participation is the key to success and should start at the very beginning stage of planning the event to the execution of the event itself *(Smith 2012).*

Figure 3.2.3: Boxpark, London. Shipping containers can be used to create pop-up retail parks. *(La Citta Vita 2013)*

Figure 3.2.4: Go! St. Louis Marathon. Creating a 5k route that runs through areas with high vacancy raises awareness. *(Herholz 2008)*

RUN FOR REVITALIZATION

Neighborhoods with a high percentage of vacancy often have little opportunity for outdoor recreation such as running trails and bike paths. By organizing a 5k run or walk in these areas, not only is the event providing an opportunity for a healthy lifestyle within the community, but it is also inviting running enthusiasts from the surrounding area to become more aware of the conditions within these neighborhoods, educating them, and making them more willing to help revitalize the area.

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support	Social Impact	Time	Investment	Citizen Involvement	Typology
Community Events	-	-	Opportunities for fundraising.	Provide more entertainment and recreation opportunities.	-	By increasing visitor traffic in vacant areas, more people will associate a positive image with vacant neighborhoods and foster investment	Can be implemented almost immediately	Private investing of funds and supplies	Opportunities for community involvement and neighborhood planning groups to come up with creative solutions	Crime, Age of Population, Parcel Size, Context Vacancy, Size of Open Space, Ownership

Figure 3.2.5: Opportunity Matrix.. Visualizing opportunities addressed by vacancy strategies. *(Jackman 2008)*

OPPORTUNITIES

Scheduling community events, whether through grassroots efforts, through local organizations, or through local government, creates lots of opportunity for neighborhood revitalization. In addition to revenue potential through food trucks and pop-up retail, having events where families within the community can gather and recreate provides an improved quality of life. This improved quality of life within the neighborhood then affects the rest of the area socially, transforming the area into one with a more positive image rather than letting them be defined by vacancy. These events can be planned by the community, giving them a sense of pride and involvement in their own neighborhoods.

PLACES OF WORSHIP CATALYSTS

Figure 3.2.6 Places of Worship Catalysts Vacant parcels adjacent to churches can help catalyze change. (*Knight 2015*)

GOALS

- Utilize vacant parcels near or adjacent to places of worship.
- Capitalize on strength of existing cultural communities.
- Create outdoor spaces for worship, community gatherings, weddings, and other activities.

BENEFITS

Cultural strengths should be harnessed whenever possible when reinventing vacant parcels. Places of worship represent one such cultural strength.

Places of worship are often the epicenter of African American community culture and the "blueprint for civic life in the neighborhood" (Patillo-McCoy 1998). Eighty-seven percent of African-Americans in the US report affiliation with a particular religious group (Soaries, Jr. 2010).

Catalyzing places of worship means boosting their chance of creating positive change in the community and recognizing them for their ability to gather caring and passionate people, create events, and create community.

Vacant parcels can be utilized in several ways each benefiting places of worship as well as the greater community:

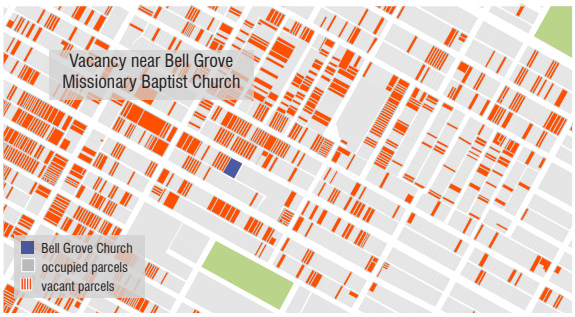


Figure 3.2.7 Vacant Parcels and Places of Worship Sites Vacant parcels can be used for outdoor activities near this church in the Greater Ville neighborhood. *(Knight 2015)*

- Congregation community gardens
- Sermon/worship areas
- Outdoor wedding venues
- Meditation/prayer gardens
- Facility expansions

Neighborhood places of worship can grow their influence even more in the community by utilizing vacant parcels. Utilizing vacant parcels for facility programming can be an effective use of vacant land and expand cultural capital.

Figure 3.2.8 Community garden next to places of worship. *(Editor5807 2011)*

Figure 3.2.9 Church amphitheater for baptizing. (*"whywhynot" 2004*)

Figure 3.2.10 Reflective wooded area and path. (*Scott 2005*)

PRECEDENTS The photos above show existing examples of how places of worship have been able to use the landscape. Gardens, wooded areas, and amphitheaters are three design elements worth considering for the development of vacant parcels adjacent to worship facilities.

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support	Social Impact	Time	Investment	Citizen Involvement	Typology
Fostering Community Involvement Through Religious Organizations	Youth programs, womens' shelters, outreach programs and others help reduce the number of individuals who turn to crime.	Maintaining lots, program workers, project managers, etc.	Places of worship can use lands to grow food and provide job training. .consumables for sale	Shelters, food pantries, community gardens, and alternated community programs provide aid and care for persons in need	--	By giving religious organizations resources to help individuals in need, many people will receive aid and opportunities to succeed	1-5 years to acquire and develop lands and allocate resources	Private, grants investors, tax providers, donations	Citizens and neighborhoods can vote to give resources to their personal religious organization	Crime, age of population, lot size, block vacancy, context vacancy

Figure 3.2.11 Opportunities for empty lots A short-term solution to create positive community momentum. (Jackman 2015)

OPPORTUNITIES Places of worship represent one of the best opportunities to reinvigorate the community and vacant parcels because they are one of the biggest assets remaining in neighborhoods with high vacancy.

URBAN PLAY

Figure 3.2.12: Hardcore Parkour Vacant lots can be turned into places for paintball, parkour, and other extreme sport activities. *(Stucki 2015)*

GOALS

- Utilize areas of vacant land and vacant buildings.
- Create places for fun, physical activities.
- Create business opportunities within vacant buildings.
- Utilize on-site or recycled materials
- Promotes sense of excitement and adventure

BENEFITS

This strategy will expand community interactions and physical health by providing fun unique areas where outdoor play and socialization can take place.

These urban play developments present opportunities for more unconventional types of activities such as parkour, paintball, skateboarding, and BMX biking.

Urban play activities can use both vacant lots and vacant buildings with minimal intervention. Lots can be cleared and simple structures can be implemented to provide places to run, jump, bike, and skate. Empty buildings can be the setting for events like paintball or laser tag, which would require minimal building maintenance.

Urban play developments can be implemented relatively quickly and can utilize recyclable materials found on vacant parcels to build obstacle courses or playgrounds.

Figure 3.2.13: Areas of Opportunity Contiguous parcels in the North Riverfront neighborhood provide opportunities for urban play developments. *(Knight 2015)*

Many of these amenities could be open and free for public use. Other activities (such as the paintball and laser tag) could provide business opportunities for locals.

This type of development promotes the physical health of the community, while also allowing people of the community to bond over a shared interest.

Figure 3.2.14: Tire Slide Earth filled tires are used to construct playground equipment in Leipzig, Germany. *(Belanger 2010)*

RECYCLED MATERIALS

Structures for urban play developments can be built out of a variety of recyclable materials. Tires can form playground amenities, walls can be built with glass bottles and cans, recycled wood or plastic can be turned into benches. Communities of St. Louis can utilize unused brick and concrete, as well as materials like glass bottles, cans, and tires to create unique, interesting structures for urban play. The activity of building these structures can also serve as a community bonding activity.

Figure 3.2.15: Recycled Walls Earthship structures in New Mexico are built of cans, bottles, tires, and concrete. *(Parkins 2015)*

Figure 3.2.16: Upcycled Benches Phones can be reformed into park benches. Reclaimed wood can also be used for benches. *(4Eleven Images 2011)*

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support	Social Impact	Time	Investment	Citizen Involvement	Typology
Extreme Urban Play Developments	Occupied land and assigning purpose to vacant areas will remove vacant areas used for criminal activity	Owners and workers for urban play establishments	Tax and commercial revenue	Exercise opportunities	--	Creates bonding opportunities for teammates and players	A few months to a couple years to renovate abandoned structures	Private investors	--	Non-Residential Building, Market Values, Age of Population, Size of Building

Figure 3.2.17: Opportunities for Urban Play This strategy provides opportunities for community health and well-being through play and physical activities *(Jackman 2015)*

OPPORTUNITIES

Urban play developments contain several opportunities and benefits to communities experiencing to solve vacancy problems. These are outlined above. This strategy centers around the opportunities for fun and unique physical activities. The chart above addresses several typologies that could utilize this strategy.

SOLAR FIELDS

Figure 3.2.18 Creating New Economy Vacant parcels are opportunity for new economy and new energy source. (*Knight 2015*)

GOALS

- Utilize moderate-to-high areas of contiguous vacancy.
- Develop new industry and economic opportunities.
- Create a spectrum of blue collar to white collar jobs.
- Reduce fossil fuel consumption and source energy locally.
- Capitalize on 200 days of full or partial sun per year.

BENEFITS

Utilizing solar energy farms on vacant parcels provides a variety of benefits. Solar panels are a visible and tangible industry where people can walk, bike, or drive by and see investment and redevelopment.

Wind power is aesthetically and environmentally controversial because they are large structures which can obstruct views or be seen as an "eyesore." Wind turbines can also disrupt wildlife habitat. In contrast, solar panels have minimal environmental impact, no moving parts, and are totally silent. (Wright 2013; energymatters.com.au 2015)

Solar panel leases can be finite (Curwin 2012). This leaves flexible options for future development open if markets and requirements change. Depending on the extent of panel coverage, concurrent land uses might also be possible.

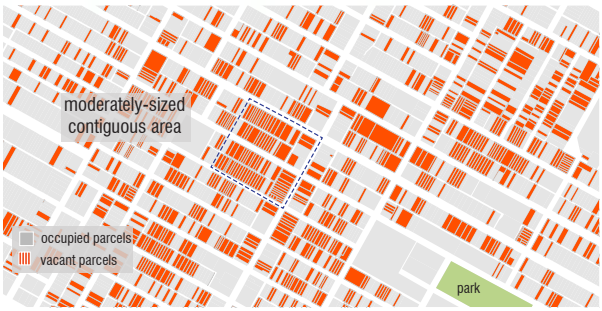


Figure 3.2.19 Contiguous parcels in The Ville represent opportunity for solar fields. (*Knight 2015*)

Solar panels would be a new industry in St. Louis. Thousands of jobs could be created from blue collar to white collar: solar panels require land acquisition, construction, battery designers, component manufacturing, and ongoing maintenance.

Opportunities to train the local workforce to work on solar farms may already exist. Technical high schools in St. Louis could begin integrating solar industry curriculum. Other "mild" vacancy strategies around the schools could provide hands-on, design-build opportunities to learn the solar industry.

Solar development could be integrated with other strategies including meadows, hiking trails (in/around the fields), or even productive landscapes in areas in transition to a solar field.

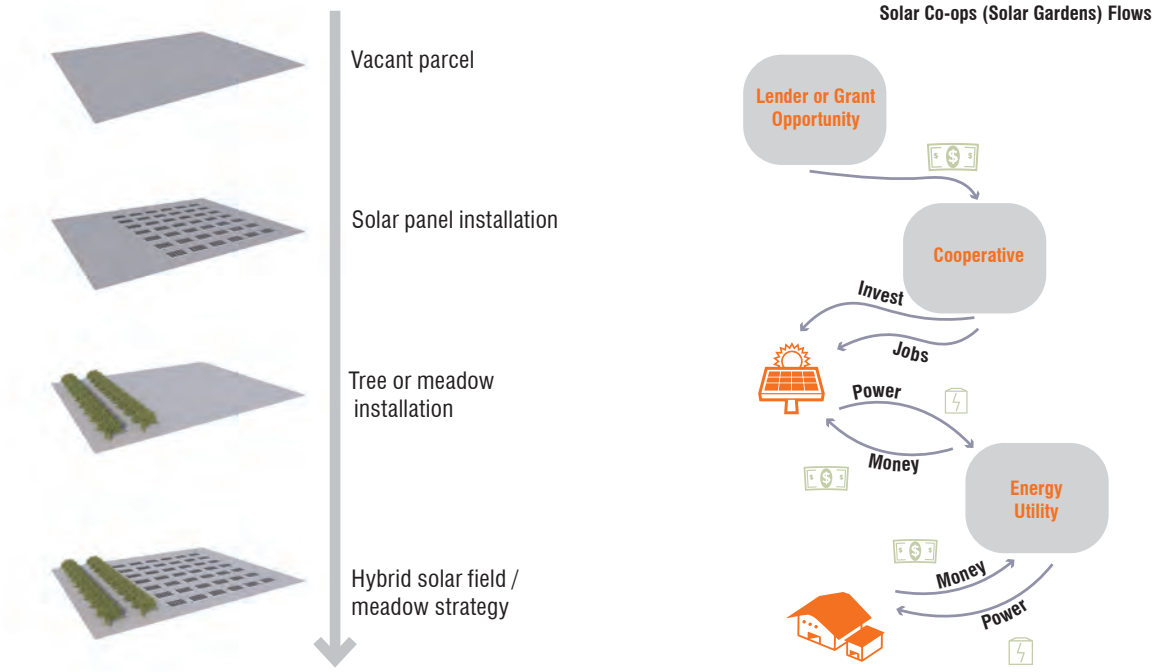


Figure 3.2.20 Alternative Energy Process How alternative energy can work in St. Louis. *(Knight 2015)*

CREATING ECONOMY

Productive meadows--useful for growing, phytoremediation or aesthetics--accent solar fields in land once vacant in St. Louis. Solar fields would produce a new industry in St. Louis providing a variety of blue- and white-collar jobs. Nature trails or other paths could be utilized in the development of the solar fields to create hybrid strategies and overlapping uses. A co-op setup could be used to create the solar fields.

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support	Social Impact	Time	Investment	Citizen Involvement	Typology
Alternative Energy Fields	Lands used for alternative energy fields will be monitored and secure.	Job opportunities in maintenance, management, engineering, mechanics, and more.	Reduce cost of energy consumption, save money.	Hybrid strategies combined with solar panels can provide quality of life benefits.	Alternative energy reduces the need for carbon-emitting power plants.	--	20+ years of preparation and implementation.	Grants, Private Funding, Lender	--	Parcel Size, Block Vacancy, Context Vacancy, Sun Exposure

Figure 3.2.21 Alternative Energy Opportunities Alternative energy is a long-term solution for employment. *(Knight 2015)*

OPPORTUNITIES

The solar field strategy contain several opportunities and benefits to communities trying to solve vacancy problems. These are outlined above. Employment potential is one key opportunity contained within this strategy. Several typologies are addressed with this strategy.

BLACK WALNUT GROVE

Figure 3.2.23 Idea for Black Walnut Tree Grove Vacant parcels transformed into a Black Walnut grove (*Vallo 2015)*

GOALS

- Use vacant lots to create unique identity for city of STL
- Create jobs
- Urban agriculture and food production
- Sequester carbon
- Reduce urban heat island effect

BENEFITS

This strategy uses vacant parcels to create a strong identity within the city of St. Louis. Creating a black walnut tree grove is a “spicy idea” that utilizes unique urban agriculture opportunity to strengthen the sense of place and meaning in the city.

Black walnut trees are one of the most commercially valuable tree species in the country (Pennsylvania State University 2013). A mature stand of black walnut trees can bring in about $100,000 per acre in timber value alone (Thompson in Wallin 2015). Creating a black walnut tree grove will increase the job demand in north St. Louis. Employees will be needed to maintain, harvest, and distribute the walnuts. Black Walnut trees have a high density which allows them to sequester more carbon even when they are young (Jacobs 2014).

Designated land use would help reduce crime rate in these areas as they would be occupied for other uses.

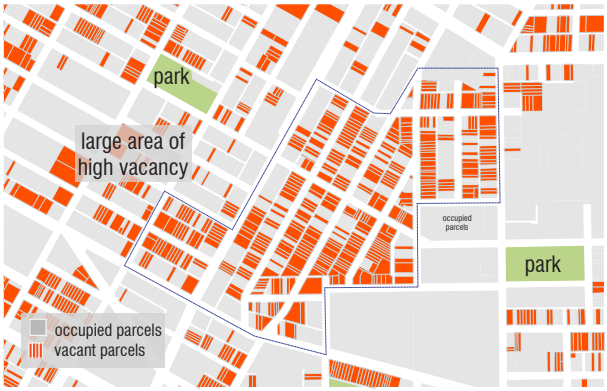


Figure 3.2.23 Walnut Grove Large area of contiguous parcels in the Jeff Vanderlou neighborhood could be one area for a Black Walnut forest. (*Knight 2015)*

Reduction in urban heat island effect would allow the city of St. Louis to become more energy efficient which will reduce cost of heating and cooling expenditure.

Revenue opportunities in harvesting and selling walnuts from the grove. Additionally, this strategy would draw in private investors and tax opportunities.

Promotes local food production which is also a major contributor toward environmental sustainability.

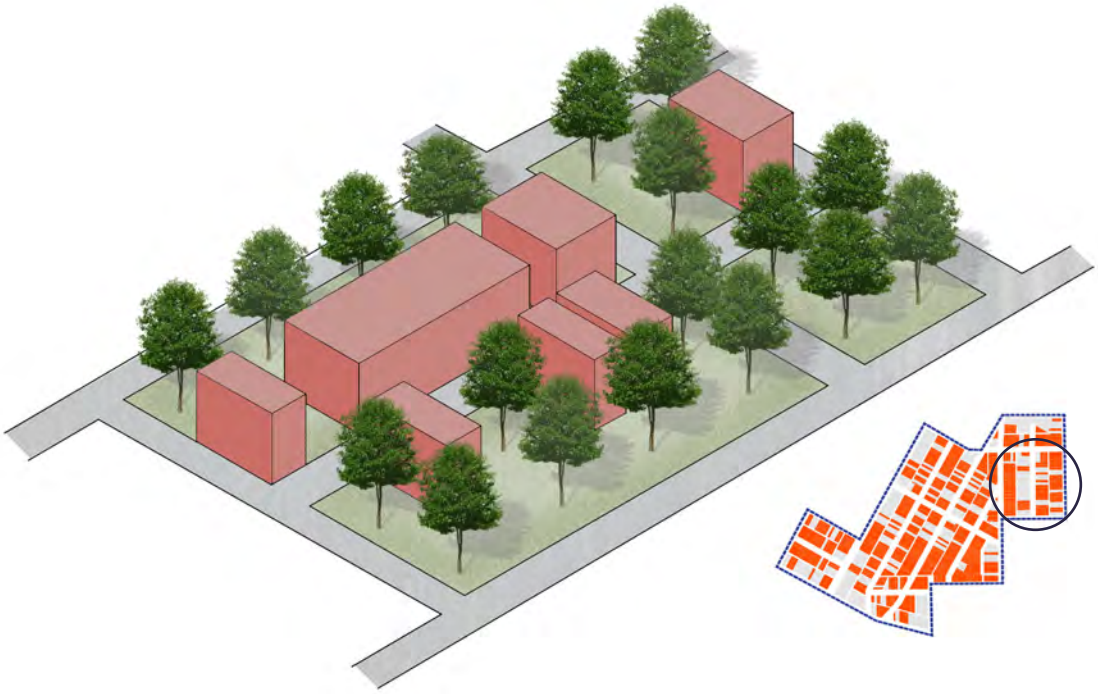


Figure 3.2.24 Strategy Diagram Current neighborhood conditions with future black walnut tree grove (*Vallo* 2015).

PROPOSED GROVE

Example of what an existing parcels in St. Louis would look like after walnut trees are planted in the vacant lots. Overtime, relocation incentives would be provided for non-vacant lots. As such a large neighborhood, this design would promote identity and provide jobs.

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of	Ecosystem Support	Social Impact	Time	Investment	Citizen Involvement	Typology
Large-Scale Urban Agriculture	Lands used for urban agriculture will be monitored and unavailable for criminal use	Maintenance, harvest, horticultural, geological, equipment maintenance	Profit opportunities for exporting goods	--	Reduce urban heat island effect, sequester carbon, decrease runoff	--	20+ years of preparation and implementation	Private investors and tax providers	--	Parcel Size, Block Vacancy, Context Vacancy, Sun Exposure

Figure 3.2.25 Walnut Forest Opportunities Matrix for black walnut tree grove *(Jackman 2015)*

OPPORTUNITIES

The black walnut tree grove is a long term strategy that would take more than twenty years to implement. This strategy provides great employment potential, providing jobs in a number of different areas. Additional opportunities include decreased crime rate, urban heat island reduction, and identity in the city of St. Louis.

URBAN WETLANDS

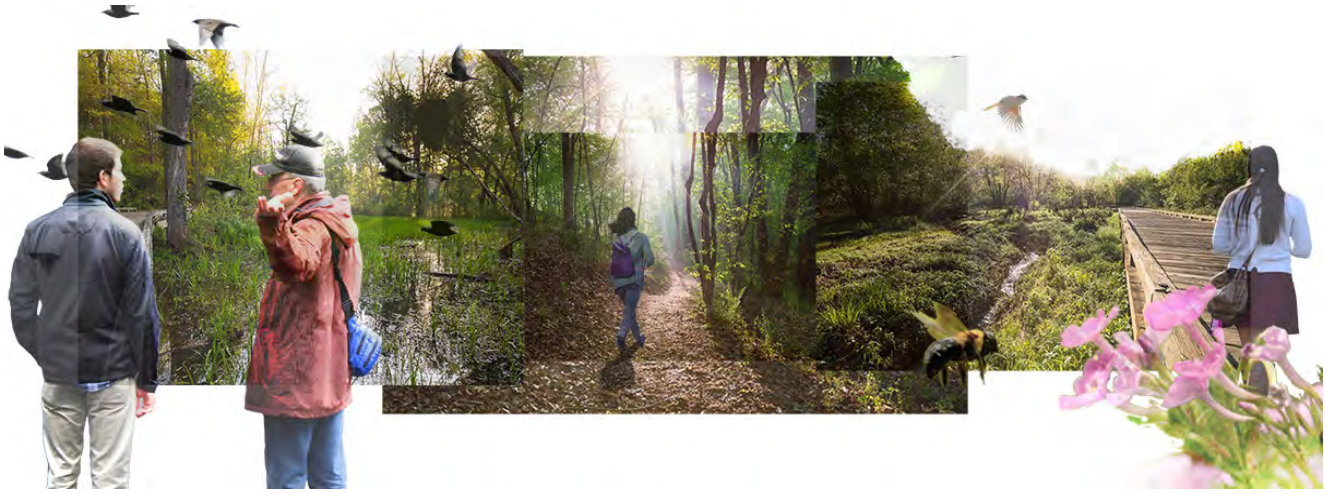


Figure 3.2.26 Photo montage of Urban Wetlands A conceptual illustration of what an urban wetlands could look like and the amenities it could offer. *(Jackman 2015)*

GOALS

- Consolidate density to areas of high activity in order to clear large areas of vacancy
- Provide wildlife education opportunities
- Sequester and filter air pollution
- Provide recreation opportunities
- Provide an identifying feature for the city of St. Louis

BENEFITS

Primarily, urban wetlands would serve a number of massive ecological functions. Wetlands provide wildlife habitats for native species of Missouri and create connectivity and refuge for migrating species according to USDA Forest Service (fs.fed.us). Healthy urban ecosystems prevent species die-off, preserve natural resources, create sanctuary for migrating species, and generally improve community and environmental health. A single tree can sequester 48 pounds of carbon and pollutants in a year (Americanforests.org). Multiple acres of trees could filter a significant portion of the pollutants released by cars and industrial sites.

Creating an urban forest and wetlands implements a riparian and forested buffer that will “physically protect and separate a ... wetland from future disturbance” and “can provide storm water management” (epa.gov). This reduces the pressure and load on storm water management systems in the city and prevents pollutant runoff into the river.

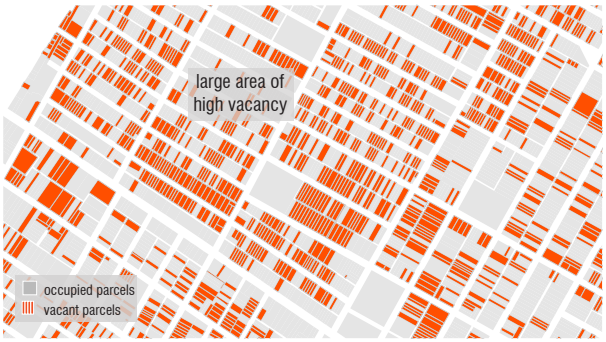


Figure 3.2.27: Figure-Ground of Vacancy Neighborhoods with a high density of vacancy could potentially be Wetlands in the future. *(Knight 2015)*

Once the wetlands are in place, boardwalks, cycle paths, hiking trails, and other recreational amenities can be implemented. These amenities open up opportunities for citizens of St. Louis to take small vacations or day trips to get away from any stress or pressures of the normal city life.

St. Louis is a river city that is woefully disconnected from its river. Implementing an urban wetlands would give the citizens of St. Louis a natural feature to identify with.

Figure 3.2.28 City of Trees This rendering shows how an urban wetland or forest could be a potential amenity for St. Louis. *(Jackman 2015).*

CITY OF TREES

Urban forests and wetlands provide a relaxing and refreshing escape from the typical strains of urban living. A chance to take a breath and enjoy the forested and aquatic scenery while jogging, biking, having a picnic, or people watching.

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support	Social Impact	Time	Investment	Citizen Involvement	Typology
Urban Wetlands Project	--	Park rangers, wildlife conservationist, educator opportunities	--	Recreation opportunities, clean air	Carbon sequestration, habitat preservation, urban heat island reduction, wildlife habitat formation	--	20+ years of preparation and implementation	Tax payers	Helping decide locations for wetlands, preliminary design feedback	Ownership, Size of Open Space, Block Vacancy, Context Vacancy, Soil Health

Figure 3.2.29 Opportunities Matrix for Urban Wetlands A qualitative analysis of the benefits of implementing an urban wetland. *(Jackman 2015)*

OPPORTUNITIES

Implementing urban wetlands could provide opportunities in education, ecosystem care and maintenance, research opportunities, and so much more. There are recreation amenities to improve physical health, and the natural plantings will filter pollutants that also have a positive impact on the heath of the city. Citizens can get involved with the decision making process and determine where an urban wetland would be best utilized to create connection with the whole city.

3.3

REPURPOSING VACANT PARCELS: ENCYCLOPEDIA OF IDEAS

The following pages are an encyclopedia of 65 different ideas to spark regeneration in vacant and blighted communities. These ideas range from easily implementable, low-cost methods to large-scale, long-term projects. Arranged on the Spice Scale from mild to spicy, this encyclopedia provides a wide range of different ideas that may reshape St. Louis. Each specific idea is explained briefly and simply, and is followed by the benefits or goals of that specific idea.

These ideas can be combined and changed in any way in order to suit the specific needs of a neighborhood or community. It is our studio's hope that this encyclopedia will be used as a guide for generating new, creative, and unique ideas to incite change and contribute to the revitalization of struggling areas. We hope that in addition to the ideas presented in this section, communities can collaborate and create strategies of their own, take the first step, and help lead the City of St. Louis in a new direction when it comes to addressing issues of vacancy and abandonment.

MILD IDEAS 

MILD IDEAS

Mild ideas address issues on a community level and provide opportunities for community involvement, education and economic improvement through low-cost projects and grassroots efforts that can be implemented quicly with little resistance.

APIARY (BEE YARD)

Idea: Build an apiary (also called a bee yard) and maintain it in partnership with local beekeeping organizations
Goal: Provide pollination to local gardens and urban agricultural productions, build community through beekeeping organizations, provide educational opportunities, and provide potential economic benefit through honey production

ART BLOCK

Idea: Select a block with a high percentage of vacancy and designate areas where artists can display their work in the form of a sculpture, installation, or gallery space in a vacant building or on the walls of a vacant building.
Goal: This block would become part of a larger art district, giving artists an opportunity to showcase their talents and attract art enthusiasts from the surrounding area as well as creating a sense of identity as a block

ART INSTALLATIONS

Idea: Use vacant parcels as opportunities to display local artists' work
Goal: Art installations will attract people from all over the city of St. Louis who wish to view the work and will provide a temporary use for vacant parcels that is aesthetically pleasing

BIKE SHARE LOCATIONS

Idea: Implement bike share stations on residential neighborhoods with vacancy and abandonment issues on small parcels
Goal: Create a more accessible city, provide opportunities for families without cars, encourage a healthy lifestyle, and connect neighborhoods to transit stops and greenways.

BERRY PATCH

Idea: Convert vacant parcel into a berry patch for whichever berry is best suited for site and regional conditions
Goal: Create alternate local food source, educational opportunities, community building opportunities through patch maintenance, and potential economic benefit by selling at local farmers' markets

BLOCK BRIDGING

Idea: Host a block party in which people who used to live in neighborhoods that are now struggling can come back and remain a part of their old community, much like a city-county exchange event.
Goal: Reconnect people with their roots, establish a sense of community without boundaries, and lessen the city/county divide

BOCCE BALL COURT

Idea: Transform smaller vacant parcels into bocce ball courts for the community to form leagues and use recreationally
Goal: Build community, provide a temporary or permanent use for vacant parcels, and provide recreational opportunities outdoors

CHURCH EVENTS

Idea: Churches located in areas of high vacancy can use those vacant parcels to hold events such as carnivals or rummage sales, or alternatively, use those parcels to construct prayer gardens or labyrinths
Goal: Activate the community by focusing on institutions with large and active congregations and improve their surrounding neighborhood

CLEANUP PROJECTS

Idea: Host community cleanup projects in which community members help improve the conditions of their own neighborhood by mowing, collecting litter, planting flowers, painting, and other simple aesthetic improvements
Goal: Create a sense of community in a neighborhood, instill a desire to create change in a community, improve the overall aesthetic of blocks within a neighborhood, and provide opportunity for service

MILD IDEAS

COMMUNITY GARDENS

Idea: Convert vacant parcels into a community garden
Goal: Provide a healthy and natural food source for the community as well as educational opportunities, opportunities for community-building activity, and potential economic activity in the form of a farmers' market or produce stand

Figure 3.3.1: Community Gardens
Photomontage of a community garden. *(Vallo 2015)*

DISC GOLF

Idea: Install a disc golf course in a neighborhood and on vacant parcels in an area
Goal: Provide recreational opportunities for people of all ages, encourage a healthy lifestyle, provide a permanent or temporary use for vacant parcels, and attract disc golf enthusiasts from all over the city into the neighborhood

DOG PARK

Idea: Utilize consecutive vacant parcels to create a dog park
Goal: Provide a recreational space that encourages outdoor activity and promotes a sense of friendship and community while also improving the air quality of a space as well as remediating any contamination on the site

DESIGN-BUILD SITES

Idea: Donate vacant parcels to trade schools or technical programs as sites for students to implement their own projects
Goal: Educational opportunities, temporary or permanent, and create a sense of community building neighborhood projects

EDUCATIONAL PROGRAMS

Idea: Hold events at local schools such as night classes or GED classes for adults, and after-school clubs and extracurricular programs that encourage community outreach, gardening, design-build, etc. for students
Goal: Activate the community, make schools a neighborhood center, encourage education, and create a sense of community

Figure 3.3.2: Educational Programs . Vacant parcels can be used as outdoor classrooms. *(Jackman 2015)*

FOOD TRUCK PARKS

Idea: Dedicate a parcel to food trucks and invite local vendors to park their trucks in the space for lunch, dinner, late-night snacks, while reusing and recycling cable spools and furniture as tables and seating
Goal: Increase economic activity, create a community gathering space. temporary or permanent use, and is implementable at relatively low cost

Figure 3.3.3: Food Truck Park Community events can spark economic activity. *(Fiala 2015)*

GRILLING COMPETITION

Idea: Host a grilling/barbeque competition on a larger vacant parcel and invite the surrounding neighborhoods and communities to participate in cooking contests and competitions
Goal: Create a sense of community through healthy competition, provide opportunity for local restaurants/cooks to showcase their talents, and attract attendees and participants from all over the city and into a new area

HAMMOCK PARK

Idea: Create a small public space with hammocks as seating for the community to relax in
Goal: Provide a small park space that is relaxing for a relatively low cost, provide opportunity for recreation, create a community gathering space, and temporary or permanent use of parcel

MILD IDEAS

Mild ideas address issues on a community level and provide opportunities for community involvement, education and economic improvement through low-cost projects and grassroots efforts that can be implemented quicly with little resistance.

JUNK PLAYGROUND

Idea: Create a play space out of found objects such as tires, tubes, pipes, nets, tunnels, etc.
Goal: Provide a space where children can play and discover at a low cost and with few specific land requirements, and provide a temporary or permanent use

LIVE-WORK STUDIOS

Idea: Offer combination housing and retail/studio spaces available at a variety of sizes and affordable for a range of incomes
Goal: Provide opportunities to local business owners and artists, provide economic opportunity, spark retail development/mixed use development, and create a sense of community through local businesses

Figure 3.3.4 Live-Work Studios Affordable living space above retail or studio space *(Knight 2015)*

MURAL "TOUR"

Idea: Invite local artists to paint a mural on the outer wall of the abandoned building of their choosing in a neighborhood and feature each mural as part of a "mural tour" of St. Louis.
Goal: provide a temporary, aesthetically pleasing, low-cost way of improving an area visually while providing opportunity to local artists to showcase their talent and attracting art enthusiasts from the surrounding area

OUTDOOR CONCERT

Idea: Use a larger vacant parcels or consecutive vacant parcels to host an outdoor concert featuring local or other musicians
Goal: Create a sense of community within neighborhoods, attract people to the area, provide economic opportunity, provide local musicians with chance to showcase their talents, and reduce crime by providing structured events to attend

OUTDOOR MOVIE SCREEN

Idea: use a small vacant parcel adjacent to a vacant building as an opportunity to host outdoor movies by projecting the film onto the building walls
Goal: Provide opportunity for community to gather and form strong connections while utilizing vacant space

OUTDOOR YOGA

Idea: Use vacant parcels as a location for outdoor yoga classes for the community
Goal: Provide opportunity for a healthier lifestyle, build community through events and activities, provide a temporary use for vacant parcels, and create a relaxing environment for neighborhood

PHYTOREMEDIATION

Idea: Use specific plants to remediate contamination from the soils; different plants will remove different contaminants
Goal: Improve the quality of brownfield sites and remove contaminants from the earth in a way that is also aesthetically pleasing. (Example: Washington University's Sustainable Land Lab Sunflower+ Project)

POP-UP RETAIL PARK

Idea: Designate a vacant parcel for pop-up shops and restaurants inside shipping containers, therefore easily portable and small enough to fit on one parcel
Goal: Increase economic activity, provide opportunity for local businesses to advertise, create a destination in the area, opportunity to build community by creating a gathering space, and attract visitors from all over the city. (Example: Bistro Box concept from Washington University in St. Louis Sustainable Land Lab competition)

MILD IDEAS

RECREATIONAL SPORT COMPLEX

Idea: Use large areas of vacancy as fields for various recreational sports such as soccer, baseball, softball, tennis, basketball, and football; form youth and adult leagues
Goal: Reduce crime by providing a positive outlet for youth, build community, provide opportunity for a healthy lifestyle, and absorb large amounts of vacancy

SIDE LOTS

Idea: Allow homeowners to purchase vacant parcels adjacent to their property to expand their yards
Goal: Increase property value of homes by increasing the amount of greenspace on homeowner's property

SHOOTING RANGE

Idea: Create an outdoor shooting range available to the public for target practice , gun safety programs, etc, can be temporary or permanent
Goal: Reduce gun-related crime through education, and provide recreation and education opportunities

TEAM BUILDING/OBSTACLE COURSE

Idea: Use areas of abandoned buildings and vacancy to create a team building course or challenge course with both high and low-ropes options such as walls, poles, cables, and zip lines as well as the opportunity for nationally recognized challenge courses such as the Warrior Dash or Tough Mudder races
Goal: Create a destination within the city for citizens and toursits, provide opportunity for recreation, and provide a temporary use of vacant parcels at a relatively low cost

URBAN CAMPGROUND

Idea: Use vacant parcels as campgrounds for families, scout troops, camping enthusiasts, etc.
Goal: Bring people into a new area of the city, provide opportunity for recreation, and provide temporary use of vacant parcels

URBAN NURSERY

Idea: Use vacant parcels as an opportunity to grow trees, perennials, shrubs, and annuals to sell for profit
Goal: Provide jobs, increase economic activity, and help remediate any contaminates that may be found in the soil of a site as well as improve air quality in the area

VERTICAL GARDEN

Idea: Improve the aesthetic of abandoned buildilngs by creating vertical gardens on the sides of buildlings
Goal: Improve the appearance of abandoned buildings and surrounding vacant parcels, build community through gardening opportunities, and create environmental benefits

5K WALK/RUN

Idea: Organize a 5k Walk/Run through various neighborhoods with high vacancy and feature educational facts about vacancy and abandonment in St. Louis at points throughout the run, ending in an area that has overcome vacancy and is on the road to recovery
Goal: Educate the public about the issues of vacancy and abandonment in St. Louis, encourage an active lifestyle, bring people from all over to an area they may be unfamiliar with, and create a sense of community

HOT IDEAS 

HOT IDEAS

Hot ideas address St. Louis on a slightly larger scale and focus on creating public-private partnerships as well as neighborhoods that are accessible and desirable to live in through instilling a sense of place and identity.

ALTERNATIVE ENERGY FIELDS

Idea: Use vacant parcels as fields for alternative energy sources such as solar panels or wind fields
Goal: Provide a green energy source for the City of St. Louis, reducing reliance on fossil fuels and reducing the city's carbon footprint

Figure 3.3.5 Solar Fields *(Knight 2015)*

CAR SHARE LOTS

Idea: Improve the ZipCar car sharing system that is already in St. Louis, although only at the airport, by adding lots throughout the city, especially around areas with high vacancy
Goal: Improve accessibilty, and provide opportunity for residents in areas of high vacancy

CO-HOUSING

Idea: Establish an intentional community in which residents are a part of a living organization that encourages working together
Goal: Absorb several consecutive vacant parcels to provide an ecologically friendly housing option with a strong sense of community and attract a new demographic to the City of St. Louis while increasing sustainability practices within the city through urban agriculture and alternative energy sources

COMPLETE STREETS

Idea: Incorporate more pedestrian-friendly sidewalks, bike lanes, and green space along streets in a community
Goal: Ecological benefits, creating a more accessible and well-connected city, potential for transit oriented development, and provide opportunity for economic growth

CONSERVATION COMMUNITY

Idea: Intentional community with an emphasis on conserving natural ecosystems in a community setting
Goal: Provide an opportunity for alternative living, attract people to the area, and create environmental benefits

DRIVING RANGE

Idea: Create a recreational driving range to be used by the local community and surrounding areas
Goal: Provide an amenity not currently found in the area, provide recreational opportunities, encourage a healthy lifestyle, and create potential economic opportunity

ECOLOGICAL EXPLORATION

Idea: Let nature take over a group of vacant parcels in an area and open up the area for exploration, discovery, and environmental education programs
Goal: Improve air quality and soil quality as well as rebuild ecosystems while attracting tourists and citizens to the area in search of an urban forest experience

ECOVILLAGE

Idea: Establish an intentional community that lives as part of a partnership with each other while emphasizing sustainable living practices and a green lifestyle
Goal: Provide an ecologically friendly housing option with a strong sense of community and attract a new demographic to the City of St. Louis while increasing sustainability practices within the city through urban agriculture and alternative energy sources

Figure 3.3.6 EcoVillage *(Stucki 2015)*

HOT IDEAS

FALL DESTINATION
Idea: Create a "Fall Destination" or pumpkin patch, corn maze, etc. that would provide a family-friendly activity for all ages
Goal: Provide family-friendly recreation opportunities, potential economic opportunity, alternate food source for the community, and community gathering space/event space

GREENWAY EXTENSION
Idea: Expand upon the work of Great Rivers Greenways and create an extensive trail system, connecting existing greenways with the North Riverfront development, major parks, and use vacant lots as pocket parks or guides for trail development
Goal: Create a healthier and more accessible city by creating new connections for bikes and pedestrians while utilizing several vacant parcels as space for development

INCENTIVIZED DEVELOPMENT
Idea: Provide different incentives such as tax breaks or grants to developers or potential business owners who show interest in areas of high vacancy or vacant parcels
Goal: Encourage business districts in vacant blocks, create a stronger revenue stream in vacant neighborhoods and provide services that neighborhoods may be lacking, thus encouraging people to move back to the area

MIXED USE DISTRICT
Idea: Create a new district within the city that provides a wide range of services and uses, for example buildings with first level retail, second level office space, and upper level living space
Goal: Increase economic activity, provide jobs, encourage more dense development in the area, and provide a variety of housing types in an area

OUTDOOR CLIMBING GYM
Idea: Build upon existing outer walls of abandoned buildings as base for an outdoor climbing gym/rock wall
Goal: Create an attraction in the area, attract people from all over the city, provide economic opportunity, opportunity for community building activities, and encourage a healthy lifestyle

PARK OR GREEN SPACE
Idea: Create a large park or linked green spaces with amenities for the whole community to come together and enjoy
Goal: Provide amenities the community may be lacking, provide outdoor recreation space to encourage public health, and increase overall programmed green space in the area

PETTING ZOO
Idea: Transform a block or multiple blocks into a petting zoo, either as a satellite off the St. Louis Zoo or a private entity with a focus on animal education, either exotic or more typical petting zoo animals
Goal: Provide educational opportunities for all ages, attract tourists and people from all over the city, provide economic opportunities, and create a destination for the city

RESIDENTIAL REDEVELOPMENT
Idea: Redevelop entire blocks or multi-block areas with a large amount of abandoned buildings for residential use
Goal: Create a more dense area, provide housing for a variety of incomes and demographics, improve the aesthetic of the neighborhood by removing or renovating abandoned buildings and developing vacant parcels

SKATE PARK
Idea: Use larger vacant parcel(s) to create a skate park for teens and skateboarders in the area
Goal: Provide a recreational opportunity and amenity not found in much of the city, create an area where teens can gather in a safe and productive way therefore reducing youth crime/gang violence

HOT IDEAS

Hot ideas address St. Louis on a slightly larger scale and focus on creating public-private partnerships as well as neighborhoods that are accessible and desirable to live in through instilling a sense of place and identity.

TREEHOUSE PARK

Idea: In an area of high vacancy with a large amount of supportive trees, create a treehouse park or space where treehouses can be built and enjoyed by many. Can be used as an opportunity for local developers/artists/firms to showcase their work
Goal: Provide recreational green space and opportunity for outdoor play and the opportunity for phytoremediation of soils depending on plants on site and plants chosen

TRANSIT ORIENTED DEVELOPMENT

Idea: With the development of a new MetroLink line, choose specific stations to develop transit hubs around, including mixed income housing, retail, etc.
Goal: Create a more connected and accessible city and provide potential for economic activity

URBAN PLAY DISTRICT

Idea: Develop one or several blocks with both vacant parcels and abandoned buildings and create an urban play district with opportunities for free running, parkour, paintball, laser tag, obstacle courses, and more
Goal: Create a district in the city that will become a tourist destination, provide recreational opportunities, reduce crime by having a productive and safe outlet, and attract people from all over the city and let them explore areas they may have never experienced

WATER PARK

Idea: Convert areas with a high percentage of vacancy into a water park with a variety of types for various uses (lap pool, splash park, water slides, wave pool, lazy river, hot tub)
Goal: Provide recreational opportunities for all ages, encourage a healthy lifestyle, provide potential economic opportunities, provide an amenity that is not found in many neighborhoods in the city, and provide jobs (lifeguards, etc.)

Figure 3.3.7. Urban Play Create a space that encourages urban exploration and play *(Stucki 2015)*

Figure 3.3.8 Transit Oriented Development Create a more connected St. Louis *(Fiala 2015)*

SPICY IDEAS 

SPICY IDEAS

Spicy ideas address St. Louis on a large scale and deal with projects that attempt to consolidate density, open up new areas for development, and require large amounts of support from the community as well as the city

BLACK WALNUT FOREST

Idea: Convert several blocks with adequate vacancy to a black walnut (*Juglans nigra)* urban agriculture production, both for harvesting walnuts as a short-term use, and eventually harvesting the wood. Create an entire agricultural district with tourism opportunities, restaurants, shops featuring local products

Goal: Create jobs in the area, create a unique new identity for St. Louis, consolidate density, and provide an opportunity for both tourism and revenue

Figure 3.3.9 Black Walnut Grove Black Walnut production provides economic opportunities *(Vallo 2015)*

CANNABIS AS CASH CROP (IF LEGALIZED)

Idea: Contingent upon the legalization of cannabis of either recreational or medicinal use, currently being debated in Missouri legislature, convert several blocks with adequate vacancy to a large-scale cannabis agricultural production

Goal: Decrease in drug-related crime, create jobs in the area, consolidate density in other ares of the city, and provide economic opportunity for the City of St. Louis

DAYLIGHTING STREAMS

Idea: While updating the combined sewers within St. Louis City, take the opportunity to daylight the city's streams, or in other words, bring the streams back above ground and create an urban stream network

Goal: Provide a natural aesthetic element to the city, preserve and protect St. Louis's stream system, reduce flash flooding, and reduce maintenance costs for drainage and culvert upkeep

FISHING NETWORK

Idea: Convert larger vacant parcels into ponds or small lakes that provide recreational fishing opportunities for the community and provide an amenity not found in large amounts of the city

Goal: Consolidate density in other areas of the city, encourage an active lifestyle, opportunity to link to existing greenways, and attract people from other parts of the city.

HIGHWAY DECOMMISSIONING

Idea: Remove/decommission one or more segments of highway or interstate within St. Louis city

Goal: Increase property values, create more pedestrian connections, potential space for retail and economic development, and create potential for additional green space

LARGE-SCALE URBAN AGRICULTURE

Idea: Convert every vacant lot in the city to one that is set aside specifically for agricultural purposes, both farms and ranches

Goal: Provide a new healthy food source for the area, educational opportunities for the community, and create educational opportunities for local students and adults

URBAN NATIONAL PARK

Idea: Transform several contiguous blocks of high vacancy into a large open space creating an urban national park in which visitors can watch the urban condition be taken back by nature over time

Goal: Create a tourist destination within the city, consolidate density in other surrounding areas, provide opportunities for outdoor recreation including hiking, camping, exploration, etc., and provide job opportunities

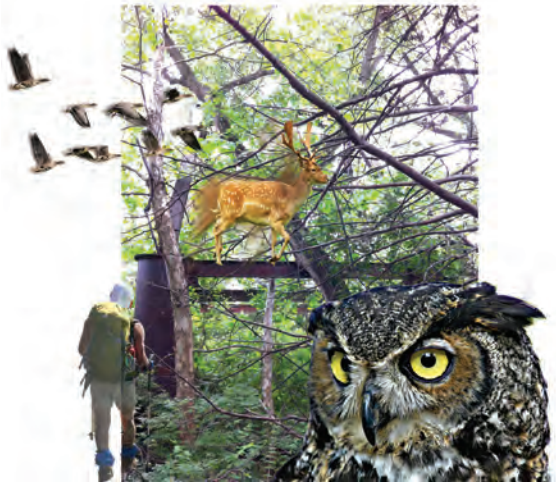


Figure 3.3.10 National Park Create an urban forest in the downtown fabric *(Knight 2015)*

SPICY IDEAS

RIVERFRONT DEVELOPMENT EXTENSION

Idea: Take the North Riverfront redevelopment even further and extend it in both directions to create a vibrant and active riverfront along the Mississippi River

Goal: Create connections between the north and south parts of the city, provide trails and opportunity for healthy lifestyles, economic opportunity, and create a tourist destination

MLS STADIUM & SOCCER COMPLEX

Idea: With the rapidly growing popularity of professional soccer, bring a Major League Soccer team to St. Louis and develop recreational soccer fields surrounding the complex similar to that in Denver at the Colorado Rapids Soccer Complex. Locate near a new MetroLink extention

Goal: Provide an amenity there is demand for in the St.Louis area, spark economic development, transit-oriented development, and increase sense of pride in STL by giving them a team to cheer for

URBAN VINEYARD

Idea: Convert several blocks within the city with high amounts of vacancy to an urban vineyard. Grapes grow well in Missouri and a one-acre vineyard can be created at a relatively low cost

Goal: Consolidate density into specific areas, provide jobs in the area, create a unique new district in the city with lots of opportunity for tourism such as a winery, tours, shops, restaurants, etc., and create economic opportunity

URBAN WETLAND

Idea: Create a network of wetland areas within the city, developing new parks and linkages to other green spaces in the area, potentially linking to the Great Rivers Greenway trail systems and more major parks

Goal: Improve both soil and air quality in the area, reduce urban heat island effect, provide outdoor recreational and educational spaces, and improve ecological health

Figure 3.3.11 Urban Wetlands Consolidate vacancy and create new wetlands *(Jackman 2015)*

WILDLIFE RESERVE

Idea: Convert areas of high vacancy into a wildlife reserve for endangered animals in Missouri; several species of birds, reptiles, fish, as well as several mammals are on the Missouri list of conservation concern

Goal: Create an environment that is safe for endangered species and an ecosystem they will thrive in, reduce urban heat island effect, create educational opportunities in the area, provide natural aesthetic in an urban environment, and consolidate density into specific areas

OPPORTUNITIES MATRIX

GOALS MATRIX

This graphic briefly explains the goals and opportunities each of the proposed strategies on the Spice Scale addresses and the typologies with which they are involved.

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support
Community Events	--	--	Opportunities for Fund-raisers, Draws consumers into business districts	Provide more entertainment and recreation opportunities	--
Implement Adult Classes and Use Vacant Lots Around Schools	--	Classes on job preparedness would improve citizen's hire-ability	Vacant lots could be turned into gardens that would produce food that could be sold for school funding	Improve education opportunities for current students and adults, foster community investment in school property, and provide classes that teach life skills	If vacant lots are used as food and rain gardens they can raise awareness of urban ecosystems and sustainability
Side Lot Utilization	Reduces amount of unclaimed property where illegal activities occur	--	Small profit from selling properties to home-owners	Gives residents the opportunity to own properties with yards to grow gardens, own pets, and have children play in.	Reduce urban heat island effect from rooftop heating and fewer energy emissions
Interest-oriented Districts	The increase in commercial development, along with occupation by public, decreases opportunities for major crime to occur	Increased commercial establishments means an increase in entry-level job positions	Tax and tourism revenue.	Districts become part of the city's character and define neighborhoods in positive ways, draw in tourism	--

MILD IDEAS

Social Impact	Potential Investment	Citizen Involvement	Typologies Considered
Increasing visitor traffic in vacant areas will associate a positive image with vacant neighborhoods and foster investment	Private investing of funds and supplies	Opportunities for community involvement and neighborhood planning groups to come up with creative solutions	Crime, Age of Population, Parcel Size, Context Vacancy, Size of Open Space, Ownership
Community investment in education and personal growth	Money into buying vacant lots around schools and removing structures, hiring teachers for community classes	Community volunteers to teach classes, donated equipment and resources for classes	Non-Residential Buildings, Context Vacancy
––	Buy vacant lots and sell to residents	Gives citizens and non-profit groups opportunities to create meaningful spaces	Building, Market Values, Parcel Size, Block Vacancy, Context Vacancy, Size of Open Space
Create neutral zones that allow mingling and interaction between different districts from around the city	Private investors	Vote on what sort of interests a district should be based around (music, international foods, art, etc.)	Crime, Market Values, Block Vacancy, Context Vacancy

GOALS MATRIX

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support
Live-Work Studios	Occupy vacant buildings so they can no longer be used for illegal activity	Reduces the cost of starting a small business, so creates incentive to start one	Tax revenue	Provides jobs and living for small-business owners, artists, and other self-employed residents	--
Community Gardens	Assigns purpose to potentially dangerous vacant lots, community involvement could foster youth programs to prevent early crime	Working in community gardens could proved a wage, or be a volunteer opportunity	--	Increase community involvement, provide healthy food options for neighborhoods with no healthy food providers	Reduce heat island effect, increase water infiltration to reduce runoff, provide pollinator and small animal habitats, raise ecosystem awareness and sustainability awareness
Phytoremediation	Assign use to vacant lots in order to reduce crime locations	Lot maintenance	--	--	Draws contaminants out of the soil, purifies soil for future development,
Transportation Redevelopment	--	Development working, transit positions	--	Creates connectivity across the city, provides transportation despite economic means	Reduces emissions due to cars, efficiently ties in connectivity, allows for opportunity to create wildlife crossings

MILD/HOT IDEAS

Social Impact	Potential Investment	Citizen Involvement	Typologies Considered
Fosters investment in neighborhoods since residents work and live in the same location	Renovate old structures to accommodate new use, can be done by private investors	Determine in public meetings which neighborhoods would be the most benefited by these sorts of developments	Building Type, Market Values, Age of Populations, Context Vacancy, Size of Building, Ownership
Increase community involvement in neighborhoods	Initial startup costs	Highly involved citizens and non-profit organizations, neighborhood organizations	Crime, Parcel Size, Block Vacancy, Context Vacancy, Size of Open Space, Water Access, Sun Exposure, Soil Health
––	Initial startup costs	Possibly maintained by volunteer citizens	Parcel Size of Open Space, Water Access, Sun Exposure, Soil Health, Dumping, Vegetation
Increases connectivity and integration between neighborhoods and districts	Government budget would need to be considered	Voting on where to make significant transit stops, crucial connections, and other important decisions	Block Vacancy, Market Values, Context Vacancy, Ownership, Street Proximity

GOALS MATRIX

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support
Foster Commercial Development in North St. Louis Neighborhoods	Commercial development in neighborhoods could foster a greater sense of safety	Increased commercial growth will lead to more job opportunities	Tax and retail opportunities	Creates job, retail, and diverse living styles	--
Ecovillages/Co-housing	Tight community groups keep an eye on crime	--	--	--	eco-villages focus on sustainable living and reducing energy use, and co-housing cuts back on energy consumption of multiple housing structures
Extreme Urban Play Developments	Occupied land and assigning purpose to vacant areas will remove vacant areas used for criminal activity	Owners and workers for urban play establishments	Tax and commercial revenue	Exercise opportunities	--
Urban Wetlands Project	--	Parks rangers, wildlife conservationist, educator opportunities	--	Recreation opportunities, clean air	Carbon sequestration, habitat preservation, urban heat island reduction, wildlife habitat formation

HOT/SPICY STRATEGIES

Social Impact	Potential Investment	Citizen Involvement	Typologies Considered
Diversify neighborhoods with commercial and retail attractions	Private investment and public investment in renovating buildings	Voting on locations of commercial districts	Crime, Market Values, Parcel Size, Block Vacancy, Context Vacancy, Street Proximity, Ownership
Create close community groups that care and provide for one another, and gives people from different lifestyles an opportunity to interact and live together	Private investment groups	––	Residential Buildings, Market Values, Age of Population, Block Vacancy, Context Vacancy, Size of Open Space, Size of Building
Creates bonding opportunities for teammates and players	Private investors	––	Non-Residential Building, Market Values, Age of Population, Size of Building
––	Tax payers	Helping decide locations for wetlands, preliminary design feedback	Ownership, Size of Open Space, Block Vacancy, Context Vacancy, Soil Health

GOALS MATRIX

Opportunities Addressed by Strategies

	Crime	Employment Potential	Revenue Potential	Improve Quality of Life	Ecosystem Support
Large-Scale Urban Agriculture	Lands used for urban agriculture will be monitored and unavailable for criminal use	Maintenance, harvest, horticultural, geological, equipment maintenance	Profit opportunities for exporting goods	--	Reduce urban heat island effect, sequester carbon, decrease runoff
Alternative Energy Fields	Lands used for Alternative energy fields will be monitored and secure	Job opportunities in maintenance, management, engineering, mechanics, and more	Reduce cost of energy consumption, save money	--	Alternative energy reduces the need for carbon-emitting power plants
Fostering Community Involvement Through Religious Organizations	Youth programs, Women's' Shelters, Outreach Programs and others help reduce the number of individuals who turn to crime	Maintaining lots, Program workers, project managers, etc.	Churches can use lands to grow food and provide consumables for sale	Shelters, Food Pantries, Community Gardens, and alternated community programs provide aid and care for persons in need	--

SPICY STRATEGIES

Social Impact	Potential Investment	Citizen Involvement	Typologies Considered
--	Private investors and tax providers	--	Parcel Size, Block Vacancy, Context Vacancy, Sun Exposure
--	Private investors and tax providers	--	Parcel Size, Block Vacancy, Context Vacancy, Sun Exposure
By giving churches/religious organizations resources to help individuals in need, many people will receive aid and opportunities to succeed	Private investors, tax providers, donations	Citizens and neighborhoods can vote to give resources to their personal church/religious organization	Crime, Age of Population, Parcel Size, Block Vacancy, Context Vacancy

CHAPTER CONCLUSIONS

By presenting these suggested ideas, our class hopes to inspire creativity, collaboration, and excitement for the people of St. Louis and other cities facing the same difficulties. These ideas are by no means comprehensive, but they were chosen specifically to show what steps can be taken now, and what kinds of ideas to move towards in the future; small goals, and large goals, working together to create a vision of St. Louis as the integrated, sustainable, and healthy city that it can become.

The various ideas along the Spice Scale illustrate the way that different projects can address a variety of goals and opportunities. Depending on the Typology of a vacancy, certain methods may be more advantageous than others, and some ideas may not be listed in this text. We strove to create a tool for St. Louis to use when analyzing vacancies and creating plans for the future. St. Louis is growing into an incredible city once again, and these ideas are meant to inspire even greater growth, opening up the minds of those who read this text to excite the imagination and invite creative goals for the future.

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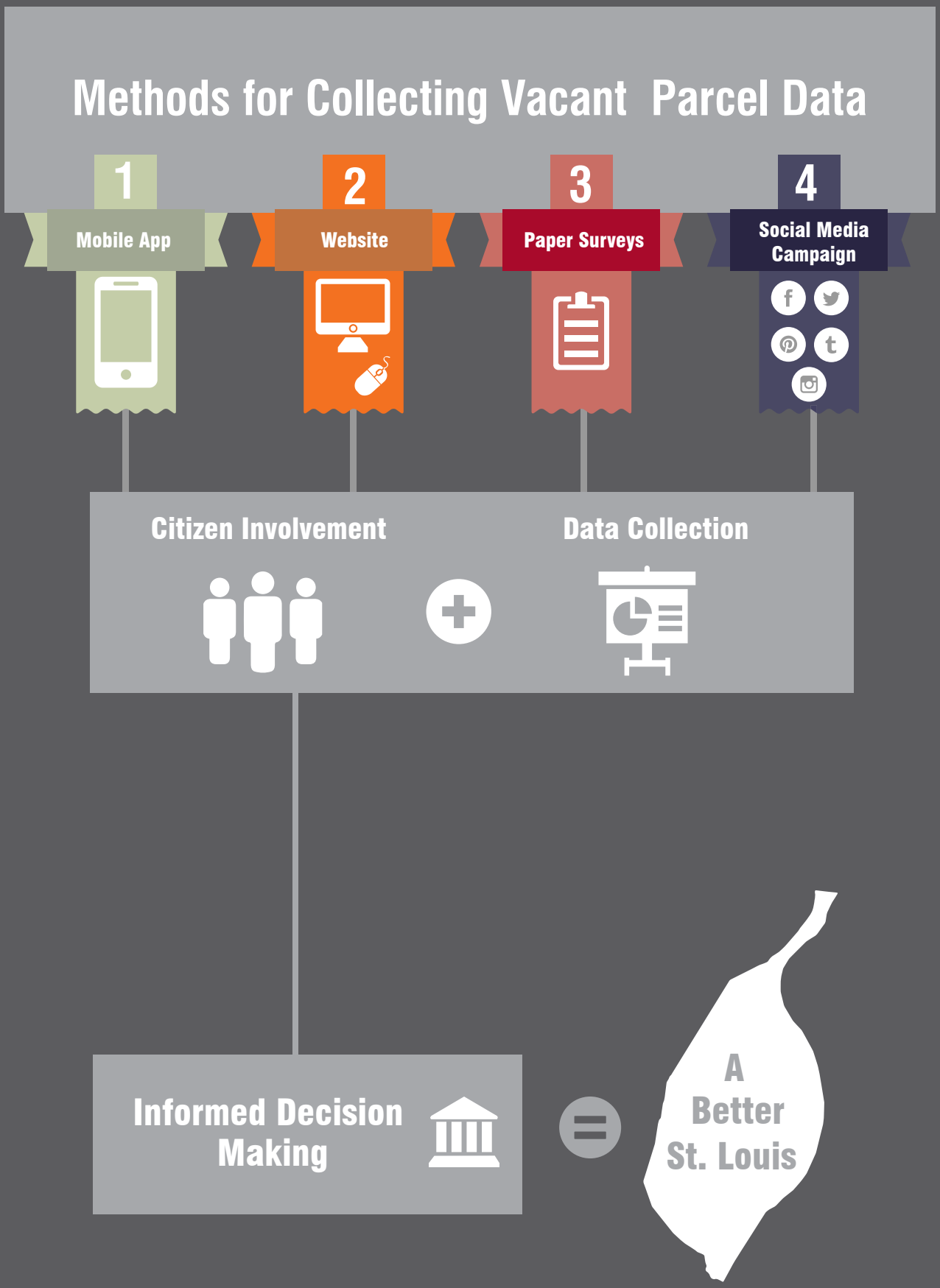
4

COLLECTION, CONNECTION, AND COMMUNICATION


Methods for Collecting Vacant Parcel Data
1
Mobile App
2
Website
3
Paper Surveys
4
Social Media Campaign
Citizen Involvement
Data Collection
Informed Decision Making
A Better St. Louis

CHAPTER INTRODUCTION

Collection, Connection and Communication is a brainstorming effort for vacant parcel inventory processes, citizen engagement, feedback approaches, and how technology could be used for both. The ideas are organized into four independent yet complementary methods. The first method addresses the task of vacant parcel data collection, and how technology such as Loveland's Site Control could be utilized. The second method is about informing and receiving citizen feedback through a website or mobile application. This website would be organized by neighborhood, and provide vacant parcel information to citizens who could share their ideas for the neighborhood through an online citizen survey. The third method is a pencil and paper approach to inventorying vacant land. Each neighborhood would be provided with a vacant parcel land map accompanied with paper surveys that citizens would use to evaluate and record each parcel. The fourth method is about engaging the public through a social media campaign. The vision is to create a consistent hashtag for the city – #ourSTL – which could be used across Facebook, Twitter, Instagram, and even Pinterest. It is important to remember that these four methods were organized so that they could stand alone and be effective. However, the more methods that are implemented together, the more beneficial they will be for St. Louis!

4.1

COLLECTION, CONNECTION, AND COMMUNICATION: MOBILE APPLICATION

One approach to a mobile application as a data collection tool is similar to what the City of Detroit, Michigan did to address their field data collection needs. Using Loveland's Site Controls technology, a trained team of surveyors would systematically collect data throughout the entire city. This approach would consist of a more technical user interface, perhaps one developed in partnership with Loveland Technologies. Because of the small user group, not as much attention needs to be given to the user experience or the graphic interface. The logistics of the app should be a simple user interface with a series of questions regarding the conditions of the vacant parcel and its surrounding context.

If the City of St. Louis is to pursue an approach that utilizes a method of crowdsourcing vacant parcel information, then the user experience and graphic interface would be an incentive for citizens to gather this data. By carefully and thoughtfully designing the user interface, the City of St. Louis could garner significant support from volunteer citizens or groups willing to spend time answering questions about parcels and neighborhoods that will allow for more informed decision making.

MOBILE APPLICATION SUPPORT OF VACANCY EVALUATION FRAMEWORK

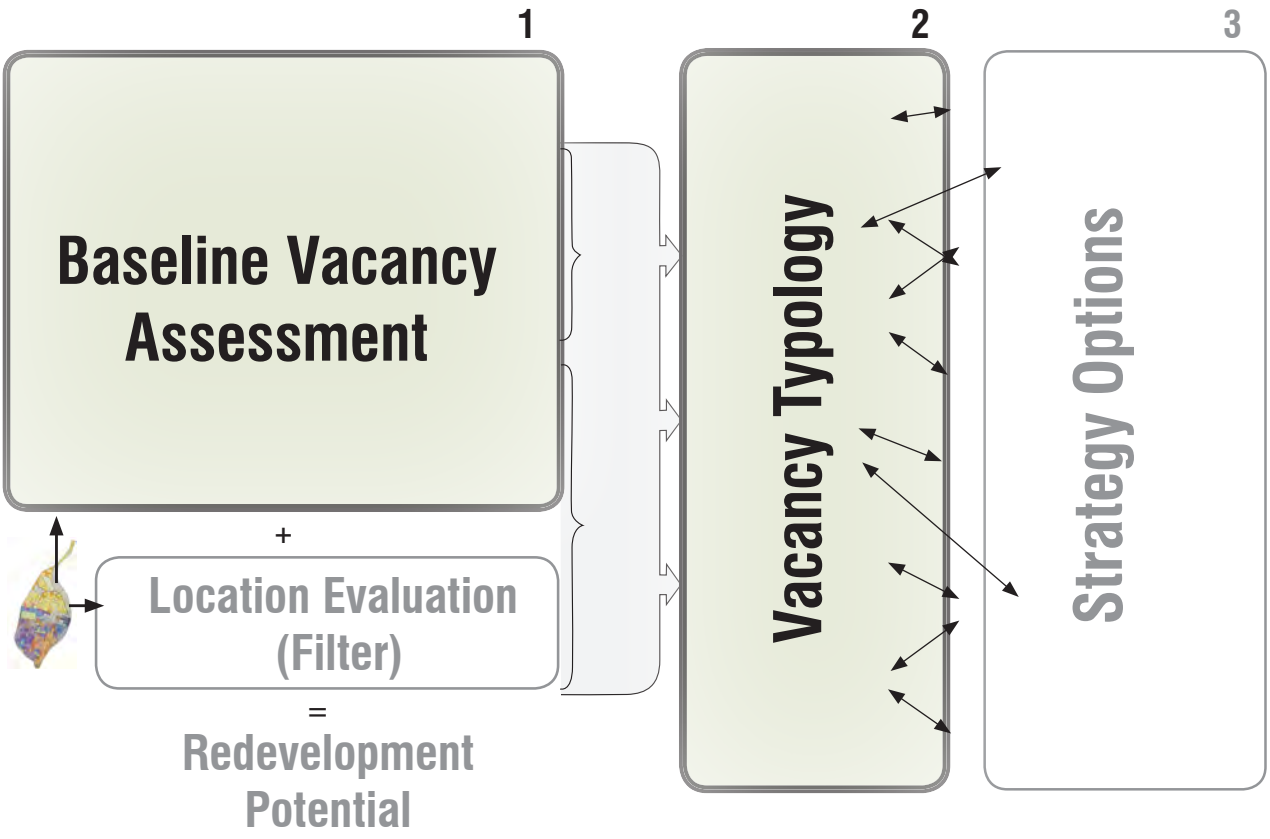
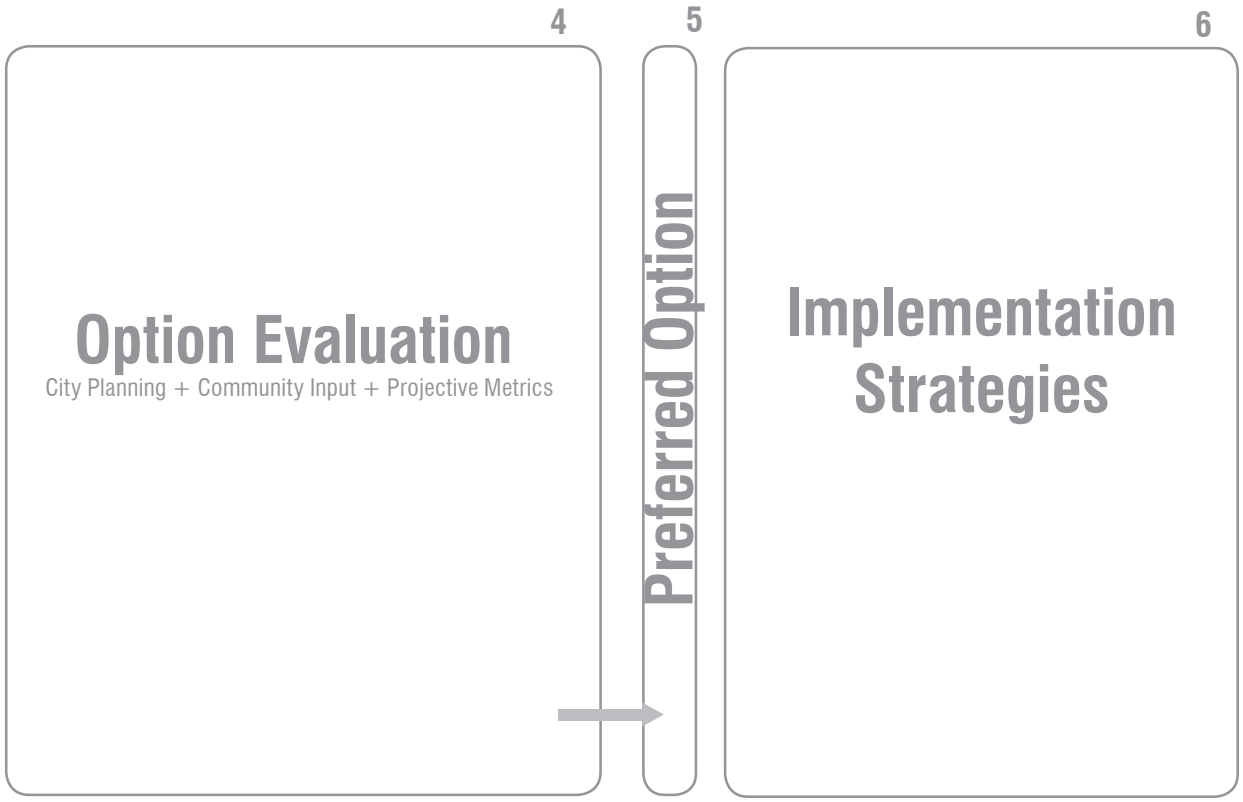


Figure 4.1.1: Mobile Application Support of Vacancy Evaluation Framework (Adapted From *Hahn 2015*) Shaded Framework steps indicate where a mobile application could be used to collect data and garner support from the public. (Rose 2015)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Option Evaluation
City Planning + Community Input + Projective Metrics
Preferred Option
Implementation Strategies

1.1 METHOD 1.1: THE DETROIT APPROACH

Mobile App

PROS

- Uniform data collection
- High degree of control
- Higher degree of reliability
- Greater speed and efficiency
- Job creation
- Utilize an existing platform (Loveland Technologies)
- Trained surveyors
- Other cities have done this

CONS

- May be higher cost
- Difficulty recruiting surveyors
- Minimal public participation
- App not customized for STL
- Data licensing contracts

Data Collection Method Evaluation Table 1.1- The Detroit Approach	
Required Personnel	Trained Surveyors
Data Integrity	High: Comprehensive
Short-Term Costs	Cost to Use Loveland App
Long-Term Costs	Ongoing Subscription Costs
User of Data:	City of St. Louis

Figure 4.1.2: Data Collection Method Evaluation Table 1.1- The Detroit Approach. *(Bruns 2015)*

Figure 4.1.3: Loveland Application Icon
App Icon. *(*Adapted from *Loveland 2015)*

The Loveland app uses Site Control Technologies to collect data systematically about parcels in North America. Cities such as Detroit have used the app to collect and map vacant parcel data. The survey questions can be customized to collect the information that St. Louis thinks is most pertinent.

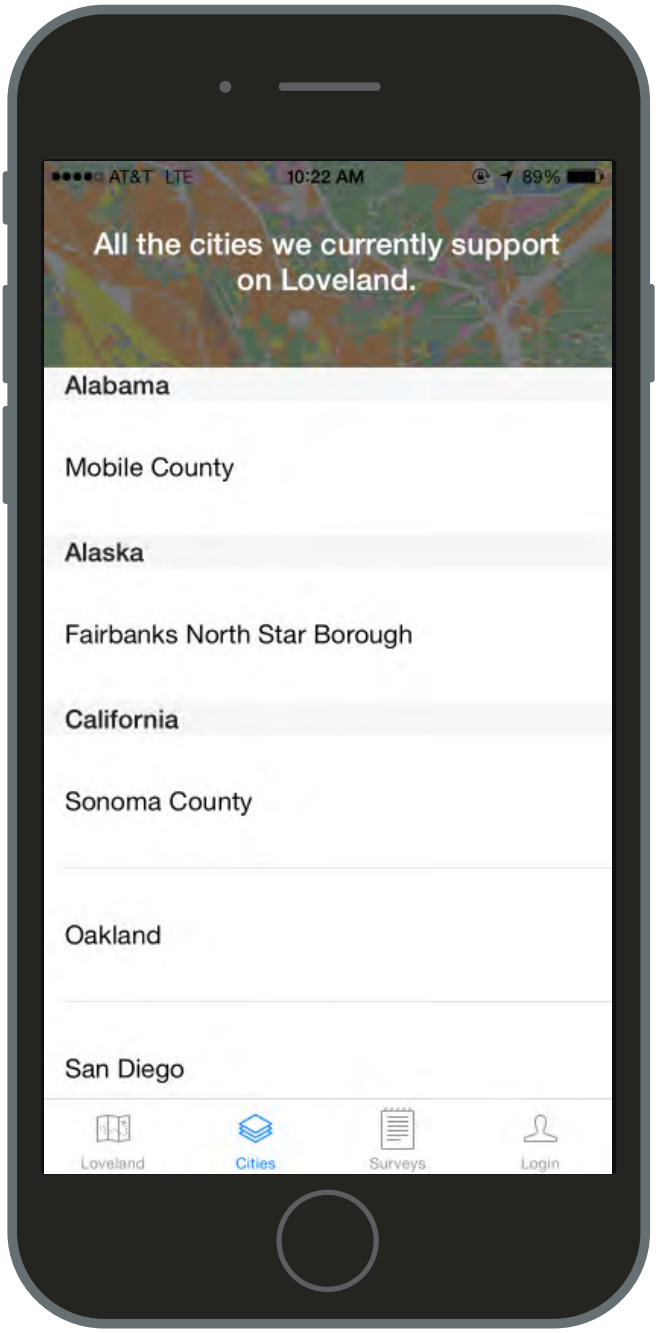


Figure 4.1.4: Loveland Application Interface Many cities are represented in Loveland's App. *(*Adapted from *Loveland 2015)*

METHOD 1.2: CROWDSOURCE DATA COLLECTION

1.2

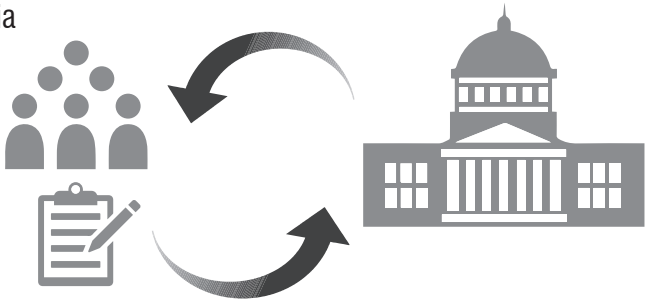
Mobile App

PROS

- Public involvement
- Engaging user interface
- Neighborhood decision-making
- Existing apps/surveys to follow
- Strengthens communication
- Customized for St. Louis
- Transparent process
- Links to social media campaign
- Links to partnering organizations

CONS

- App development costs
- Data subject to gaps and errors
- Logistics and coordination among neighborhoods needed
- Data licensing contracts



Data Collection Method Evaluation Table 1.2- The Crowdsource Approach	
Required Personnel	Neighborhood Volunteers
Data Integrity	Low: Non-Comprehensive
Short-Term Costs	Cost to Develop Survey Tool
Long-Term Costs	No Ongoing Subscription Costs
User of Data:	City of St. Louis

Figure 4.1.5: Data Collection Method Evaluation Table 1.2- Crowdsource Approach. *(Bruns 2015)*

Figure 4.1.6: St. Louis Application App Icon. *(Rose 2015)*

The ourSTL app is intended to be a valuable tool where citizens can communicate with the City of St. Louis. This would be a participatory platform where the city could crowdsource data collection with an engaging graphic interface and user experience. The city could develop ideas to incentivize users of the app to take the survey and provide their feedback and ideas. The ultimate goal of the ourSTL app is for the citizens of St. Louis and the city government to collect and organize data, and leverage this data to make more informed decisions.

App Interface:
1: User Settings/Profile
2: Information About App/Data Collection
3: Contact Information
4: Begin Survey- Linked to Parcel Survey
5: Partnership Information
6: Social Media

Figure 4.1.7: St. Louis Application Interface St. Louis' own surveying application. *(Rose 2015)*

4.2

COLLECTION, CONNECTION, AND COMMUNICATION: WEBSITE

The creation of a website, which would also be mobile-friendly, would be yet another outreach tool for the City of St. Louis to utilize in raising awareness about its data collection campaign, as well as collect ideas that are more value-based. This website would be used to inspire citizens to dream big and share their ideas for a better St. Louis; people would be inputting ideas at the neighborhood scale. The website could link to social media pages and have information about public meetings as well.

WEBSITE SUPPORT OF VACANCY EVALUATION FRAMEWORK

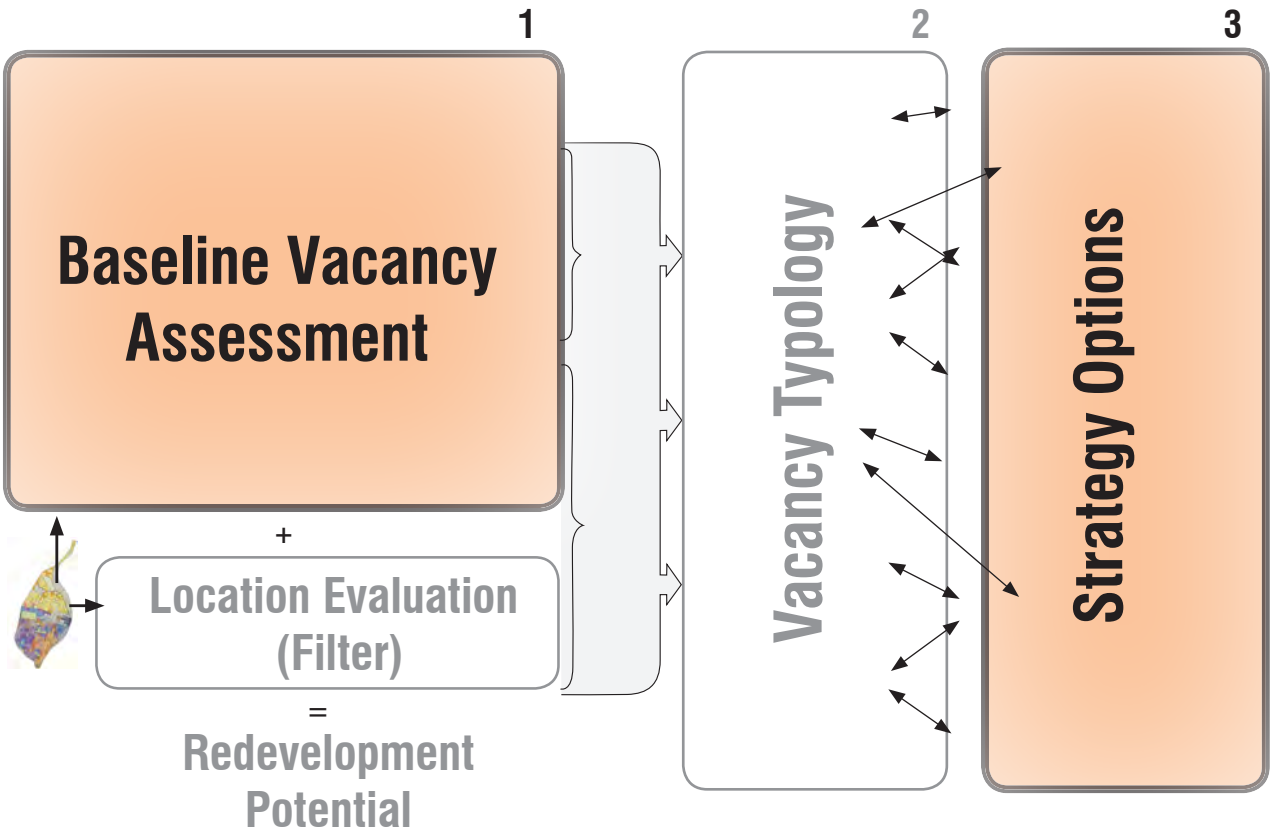
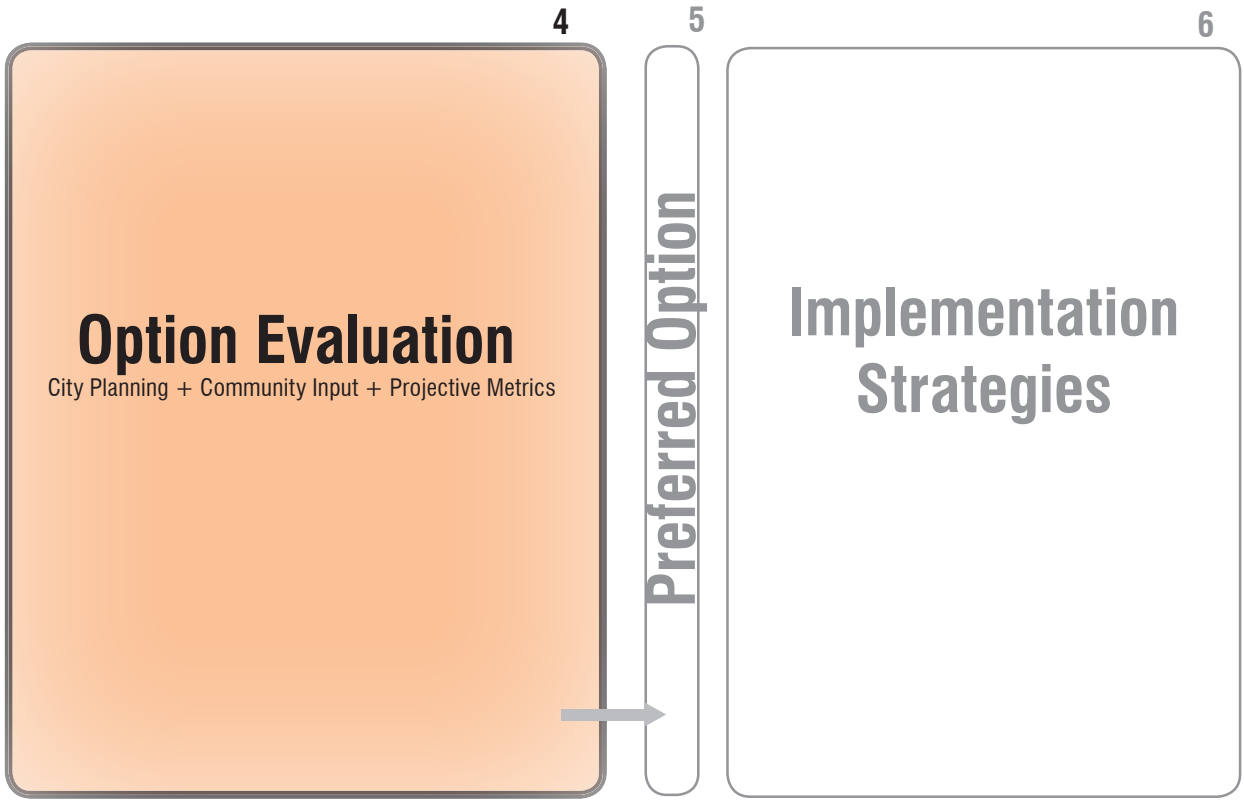


Figure 4.2.1: Website Support of Vacancy Evaluation Framework (Adapted From *Hahn 2015*) Shaded Framework steps indicate where a website could be used to collect ideas from the public and raise awareness. (*Rose 2015*)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Preferred Option
Implementation Strategies

METHOD 2: WEBSITE

2

Website

PROS

- Accessible through many platforms
- Extension of city's existing website
- Control and customization
- Friendly user-interface
- Links to social media campaign
- Prioritizes decision-making
- Transparent process
- Provide link to survey
- Links to partnering organizations
- Data owned and controlled by City

CONS

- Time to develop and promote site
- Contingent upon public support and use
- Vacant parcel data may not be as reliable or comprehensive

Data Collection Method Evaluation Table 2- The Website	
Required Personnel	Website Designer/Operator
Data Integrity	High: Accessible and Transparent
Short-Term Costs	Cost to Develop Website
Long-Term Costs	Cost to Update and Operate Website
User of Data:	City of St. Louis & Interested Residents

Figure 4.2.2: Data Collection Method Evaluation Table 2- The Website. *(Bruns 2015)*

Figure 4.2.3: Website Interface Neighborhood Selection. *(Steward 2015)*

This is the website homepage. From here visitors would select their neighborhood or a neighborhood they're interested in on the interactive map on the left. The tabs along the top banner would take viewers to simple pages giving more information about the ourSTL organization. The icons along the bottom banner would take website visitors to the various ourSTL social media sites. This social media banner will appear on every page. This whole idea was first conceived for a website, but could easily be altered to become a mobile app or HTML site.

Figure 4.2.4: Website Interface About, Inspire, Give Input, Opportunities. *(Steward 2015)*

After selecting a desired neighborhood, website visitors would be directed to the neighborhoods homepage. This page gives a visual map of where the neighborhood is located in the context of the city and a larger version of the neighborhood shape. From here website viewers can learn more about the neighborhood *(ABOUT*), discover what other people are dreaming about and add their dreams for the neighborhood *(INSPIRE)*, give their individual input for the neighborhood's future through an online survey (*GIVE INPUT)*, and explore the opportunities available through vacant land parcels *(OPPORTUNITIES)*.

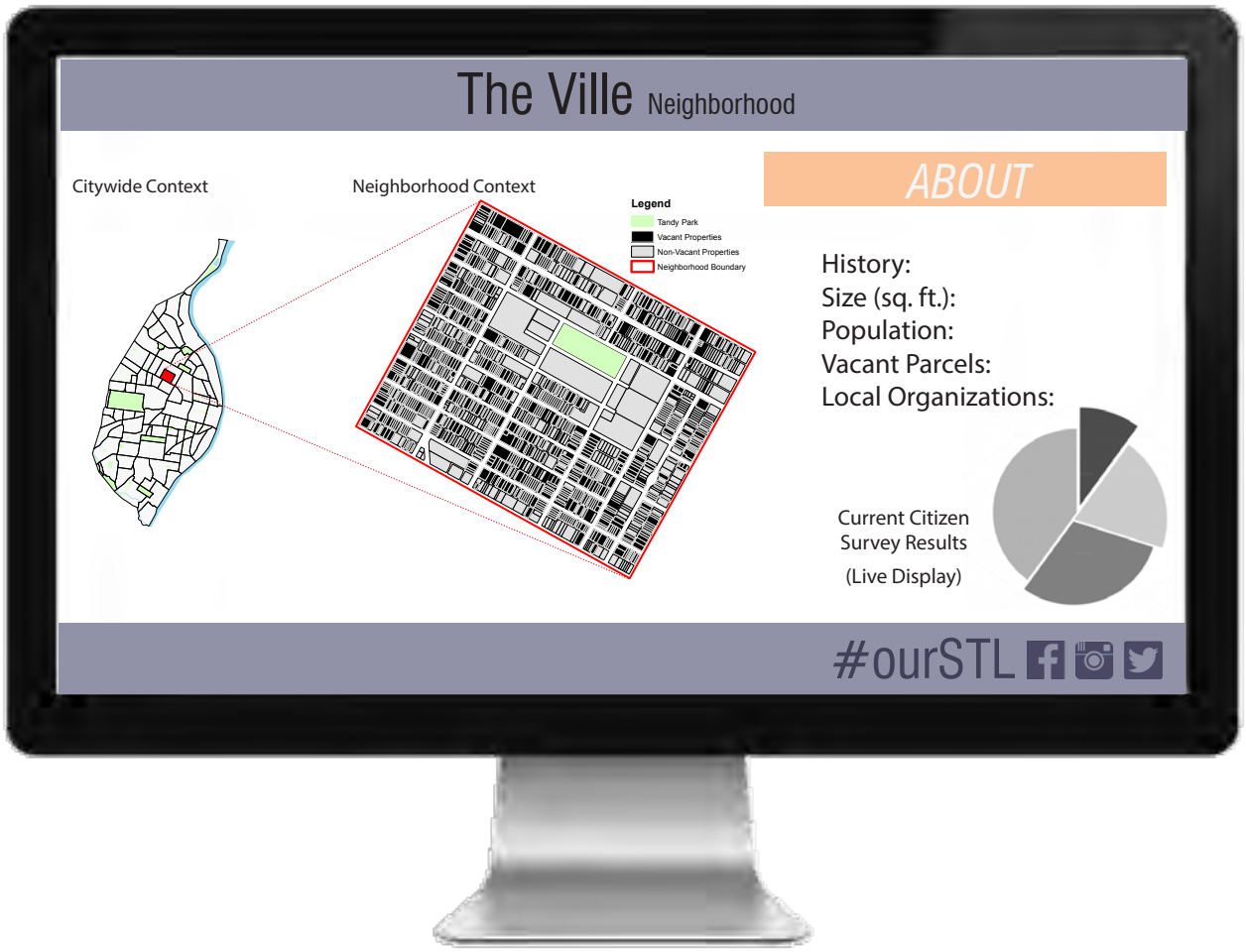


Figure 4.2.5: Website Interface About page. *(Steward 2015)*

The (*ABOUT*) page is to give people a basic description, history, and profile of the specific neighborhood. The pie chart at the bottom would be a constantly updating display of citizen survey data (found on the *GIVE INPUT* page). This would show website viewers what other people envision and would like to see for this specific neighborhood.

Figure 4.2.6: Website Interface Inspire page. *(Steward 2015)*

This page is all about generating ideas and dreaming up schemes for the neighborhoods future. An exciting way to do this is through Pintrest where citizens could find appropriate projects, images or precedents and then link them to the ourSTL Pintrest profile by using #ourSTL and hashtag-ing their neighborhood: i.e. #theVille. This way all the posts go to the ourSTL page but viewers can see which neighborhood the idea is intended for. Another way to inspire people visiting the site is to link them to the Strategy team's Spice Scale and Encyclopedia of Ideas. By using the ideas listed people could do further research (and post their findings through Pintrest) on ideas they think could work in their neighborhood. A final way to inspire is to link readers to other success stories happening in St. Louis.

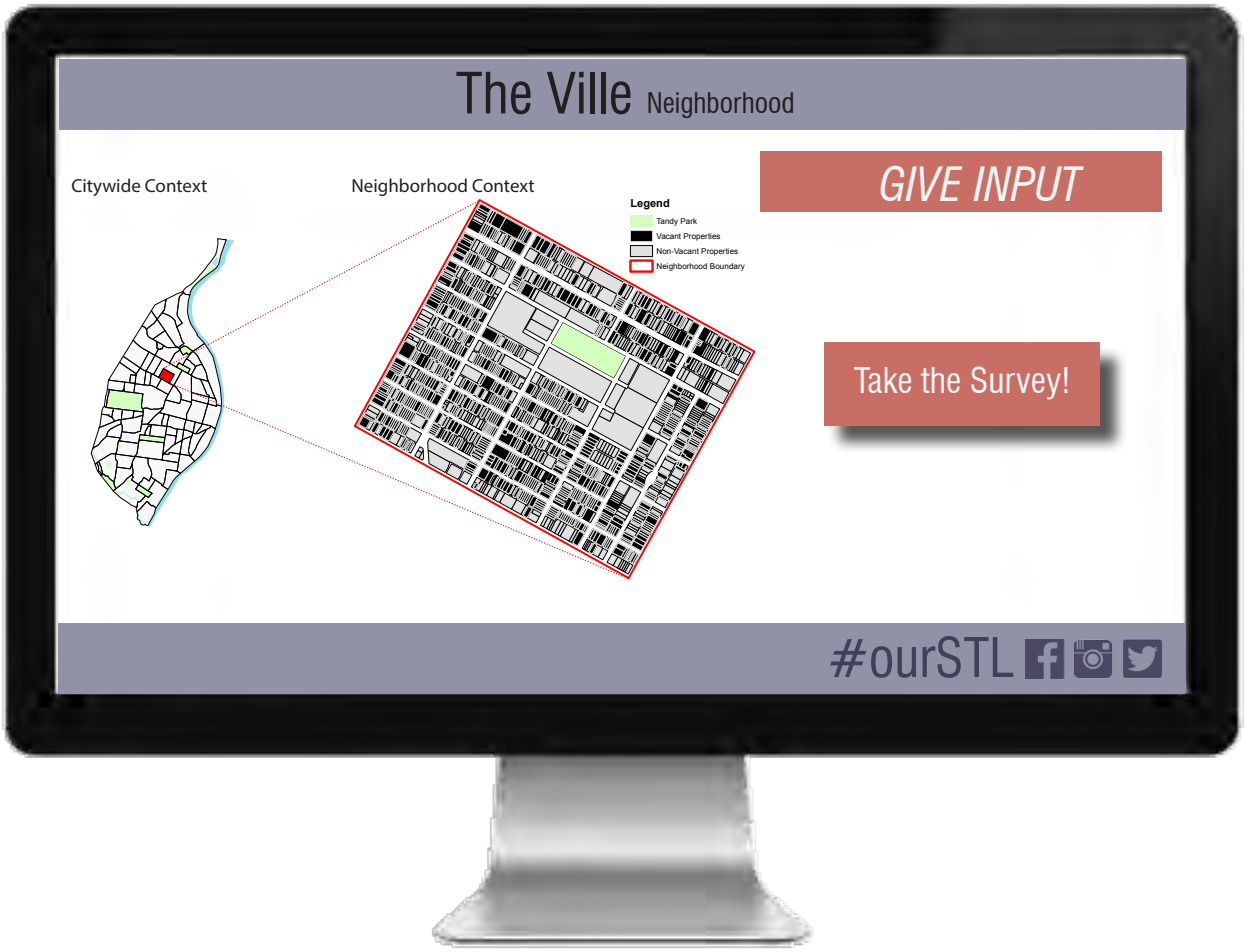
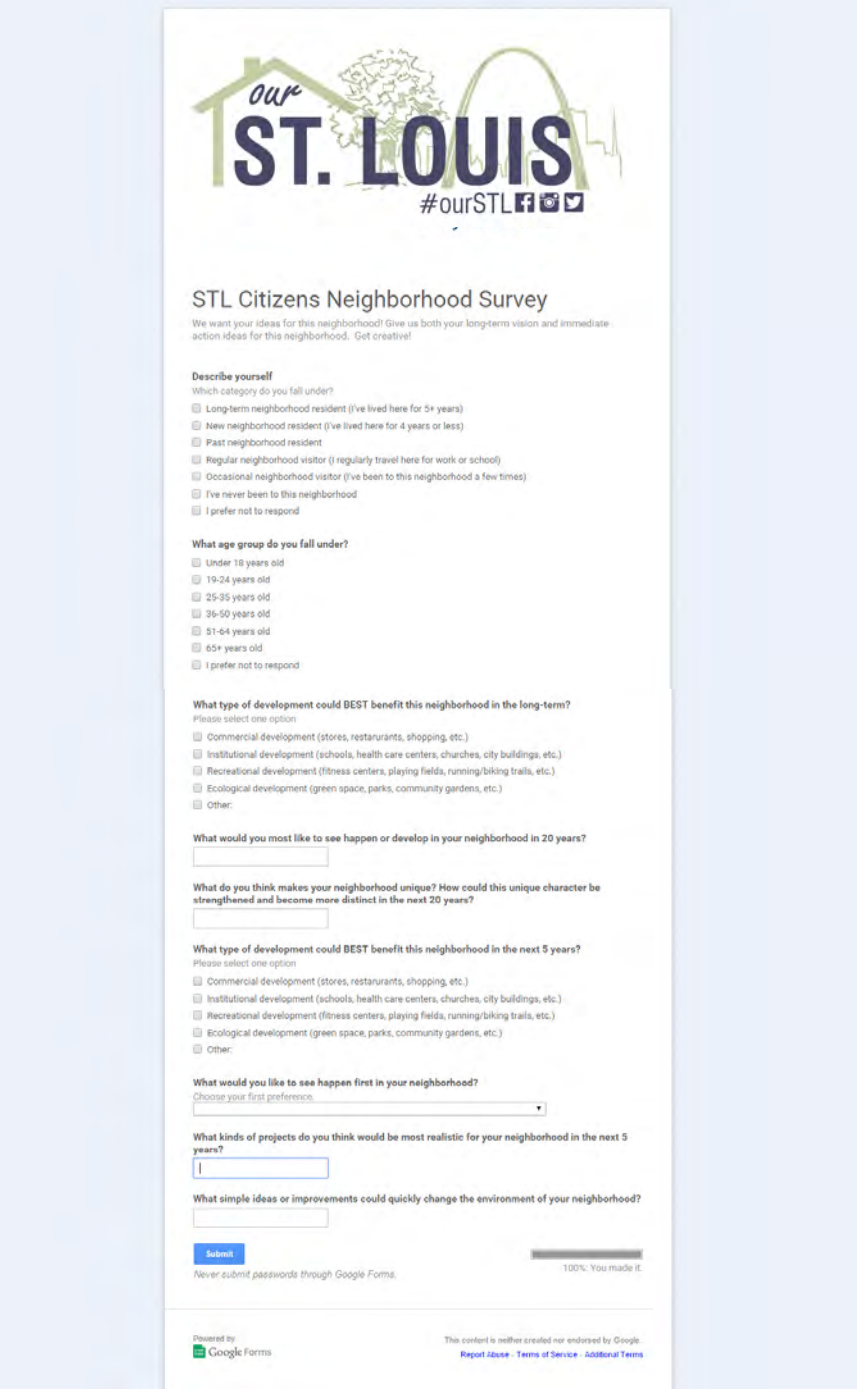


Figure 4.2.7: Website Interface Give Input page. *(Steward 2015)*

This page is for collecting citizens' views, ideas, and specific opinions. Here people can take a survey asking a few questions about themselves, asking them what their biggest dreams are for the neighborhood, and what their short-term preferences are for the neighborhood. This page would also have a rotating image box that is linked to the ourSTL Facebook page. These images would come from people uploading pictures using the #ourSTL.



our ST. LOUIS
#ourSTL

STL Citizens Neighborhood Survey

We want your ideas for this neighborhood! Give us both your long-term vision and immediate action ideas for this neighborhood. Get creative!

Describe yourself
Which category do you fall under?
- Long-term neighborhood resident (I've lived here for 5+ years)
- New neighborhood resident (I've lived here for 4 years or less)
- Past neighborhood resident
- Regular neighborhood visitor (I regularly travel here for work or school)
- Occasional neighborhood visitor (I've been to this neighborhood a few times)
- I've never been to this neighborhood
- I prefer not to respond

What age group do you fall under?
- Under 18 years old
- 19-24 years old
- 25-35 years old
- 36-50 years old
- 51-64 years old
- 65+ years old
- I prefer not to respond

What type of development could BEST benefit this neighborhood in the long-term?
Please select one option
- Commercial development (stores, restaurants, shopping, etc.)
- Institutional development (schools, health care centers, churches, city buildings, etc.)
- Recreational development (fitness centers, playing fields, running/biking trails, etc.)
- Ecological development (green space, parks, community gardens, etc.)
- Other:

What would you most like to see happen or develop in your neighborhood in 20 years?

What do you think makes your neighborhood unique? How could this unique character be strengthened and become more distinct in the next 20 years?

What type of development could BEST benefit this neighborhood in the next 5 years?
Please select one option
- Commercial development (stores, restaurants, shopping, etc.)
- Institutional development (schools, health care centers, churches, city buildings, etc.)
- Recreational development (fitness centers, playing fields, running/biking trails, etc.)
- Ecological development (green space, parks, community gardens, etc.)
- Other:

What would you like to see happen first in your neighborhood?
Choose your first preference.

What kinds of projects do you think would be most realistic for your neighborhood in the next 5 years?

What simple ideas or improvements could quickly change the environment of your neighborhood?

Submit

Never submit passwords through Google Forms.

100%: You made it.

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Figure 4.2.8: Citizen Survey To be linked to website. *(Steward 2015)*

An ideal citizen preference survey would include three parts of information.
1) What kind of resident is taking the survey, and how old are they?
2) What are some of the big ideas and dreams this person has for the neighborhood?
3) What short-term ideas and priorities does this person have for the neighborhood?

The survey should include some short answer questions to allow for maximum freedom in responding. For this reason the survey should have only a few questions to not overwhelm or discourage people.

Figure 4.2.9: Website Interface Opportunities page. *(Steward 2015)*

This page allows readers to get specific information about a neighborhood on a parcel-by-parcel basis. Someone visiting a website with the intent to learn more about a particular vacant lot would first locate the parcel block within the neighborhood map, next select the parcel, which would then take them to real images of that parcel. From there readers could click on links to the Strategic Land Use Map, the Market Value Analysis Map, and to the LRA Lot map regarding that particular parcel of vacant land. This page would especially useful for developers. Data could be supplied through the Geo-STL site or linked to it.

4.3

COLLECTION, CONNECTION, AND COMMUNICATION: PAPER SURVEYS AND MAPS

This option is the paper version of surveying vacant lots. This system will have a series of questions paired with maps of vacant parcels for each neighborhood. Surveyors would fill out the question sheets, which are in check-box format, for each parcel in the neighborhood and then the information would be used as a way to complete the vacant parcel maps and data sets. This survey option would require a high degree of coordination among the city and neighborhoods, in order to ensure reliable and comprehensive data collection.

PAPER MAPS AND SURVEYS SUPPORT OF VACANCY EVALUATION FRAMEWORK

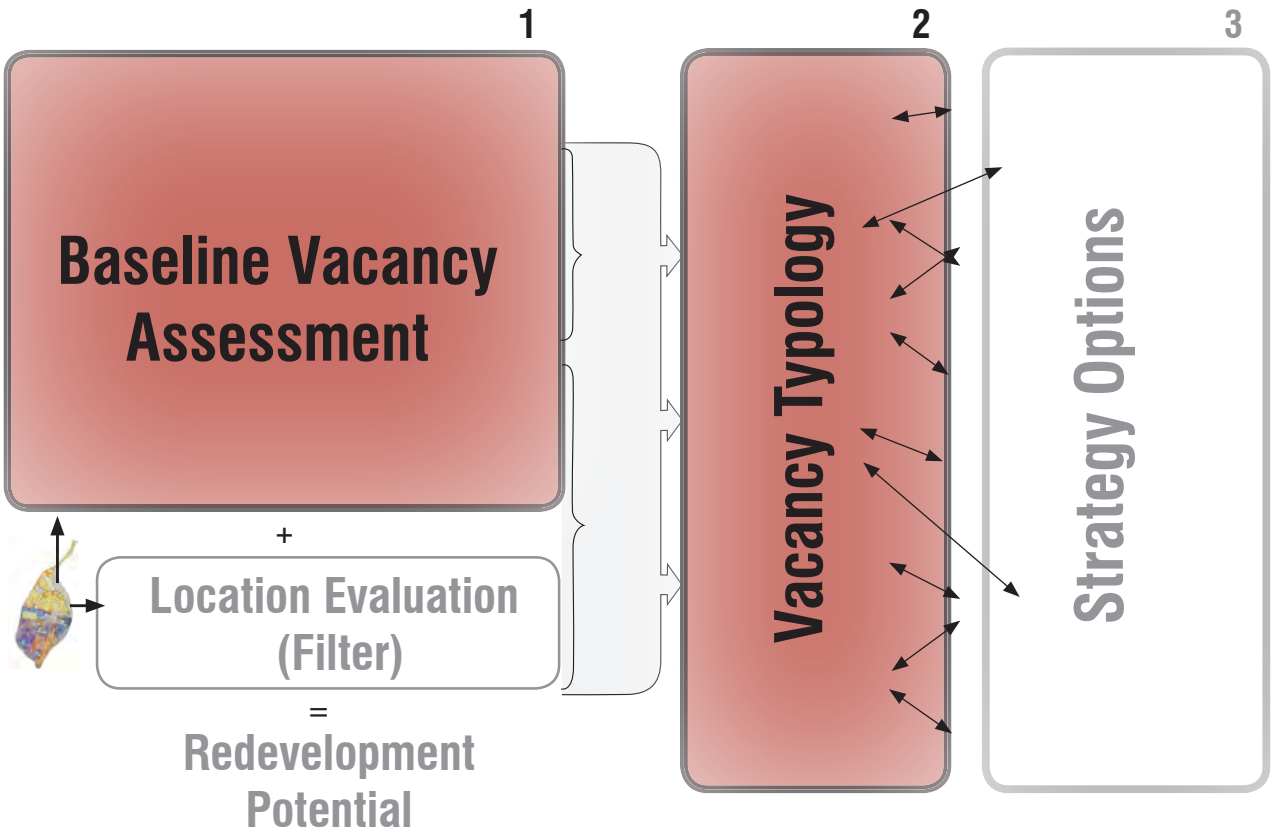
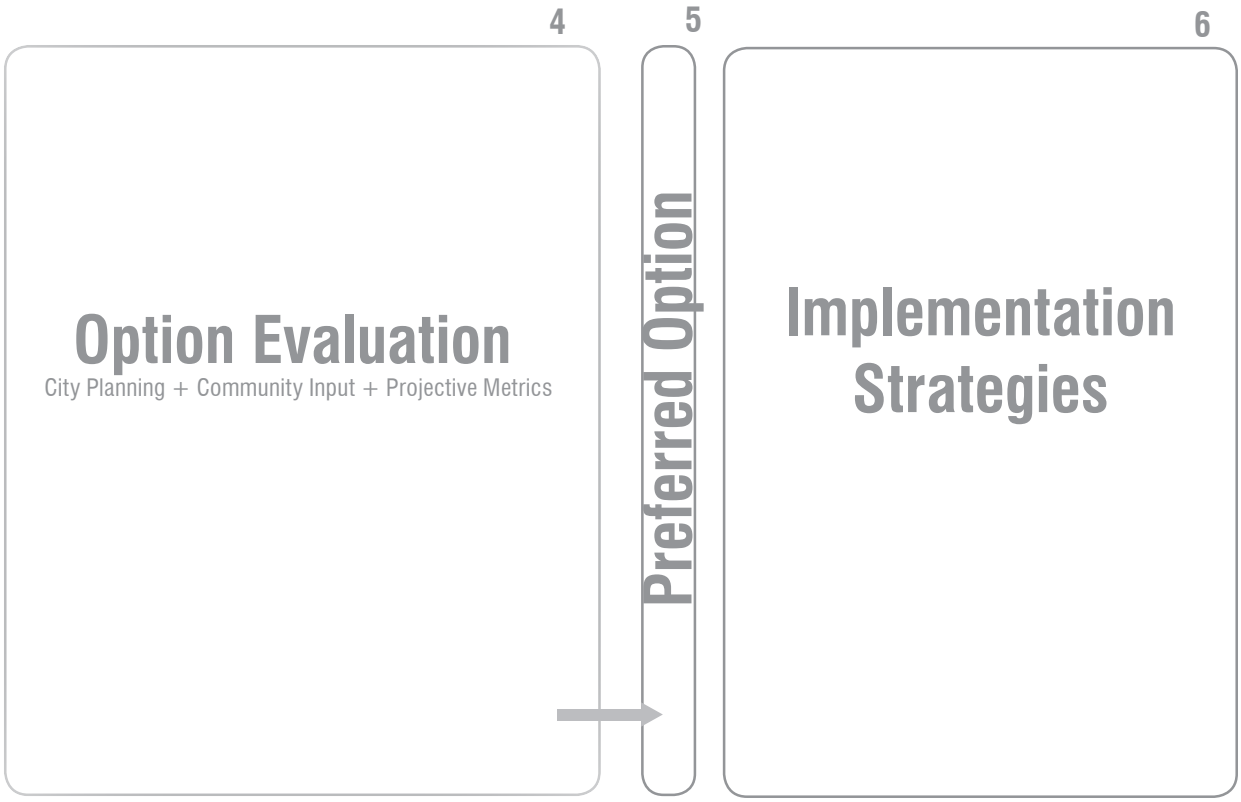


Figure 4.3.1: Paper Maps and Surveys Support of Vacancy Evaluation Framework (Adapted From *Hahn 2015*) Shaded Framework steps indicate where paper surveys and maps could be used to collect data and garner support from the public. (*Rose 2015*)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Option Evaluation
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Preferred Option
Implementation Strategies

3

Paper Surveys

METHOD 3: PAPER SURVEYS AND MAPS

PROS

- Public involvement
- Face to face interaction
- Building trust and connections
- Raise awareness and support
- Could be easily digitized and mapped
- Prioritizes decision-making
- Engaging and tactile
- Data owned and controlled by City

CONS

- Printing costs
- Logistics and coordination
- Weather-dependent
- More time and energy
- Requires physical presence
- Subject to analog errors
- Difficulties recording data
- Lots of paper, not eco-friendly

Data Collection Method Evaluation Table
3- Paper Surveys and Maps

Required Personnel	Trained Surveyors OR Volunteers
Data Integrity	High: Comprehensive
Short-Term Costs	Cost of Printing and Data Input
Long-Term Costs	No Ongoing Costs
User of Data:	City of St. Louis

Figure 4.3.2: Data Collection Method Evaluation Table 3 Paper Surveys and Maps. *(Bruns 2015)*

PAPER MAPS

VACANT PARCELS IN "THE VILLE"

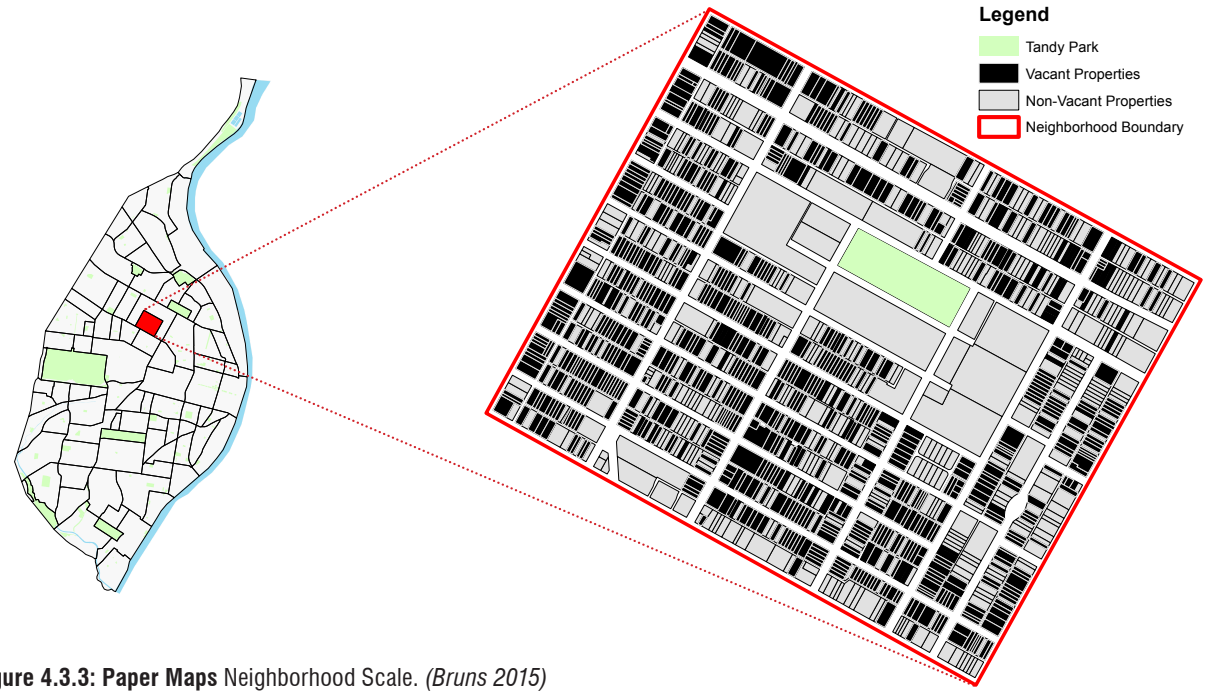


Figure 4.3.3: Paper Maps Neighborhood Scale. *(Bruns 2015)*

Each neighborhood would be provided with a map, similar to the one shown above. The map would display the neighborhood, and its most recent conditions of vacancy. This map would be given to existing neighborhoods that have clear organizational structures, in order to ensure methodical decision-making. On the maps, only the most essential information would be displayed, such as: current vacant parcels, non-vacant parcels, parks, rivers, and roads. Accompanying the map would be an analogue survey.

PAPER SURVEYS

Survey questions adapted and compiled from a preliminary test of vacant lot data collection with SC2.

Is there a structure on the site?

- ☐ Yes: A structure is a permanent building located on the site. This includes houses, garages, buildings- anything built on a foundation.
- ☐ No: If the site is empty or has temporary structures, like trailers, temporary sheds, or mobile homes, then it does not have a structure on site.

Is the structure occupied?

- ☐ No structure
- ☐ Occupied: The structure shows visible activity and consistent use or maintenance. Common characteristics are: porch furniture, a well-kept lawn, good landscaping, fences, cars in the driveway, a maintained garden, or a play area.
- ☐ Unoccupied: Common characteristics are: neglected facades, eviction notices, empty interiors, substantial physical or structural damages, extensive security measures, uncut or tall grass, weeds, trees, trash or debris accumulated over time, or accumulated flyers on the porch or door.
- ☐ Partially Occupied: One or more units in a multi-unit dwelling are occupied, while others are clearly vacant.
- ☐ Possibly Unoccupied: The property displays characteristics from both categories above, making it difficult to assess whether there is consistent use or maintenance.

What is/was the site used for?

- ☐ Residential: Includes single-family homes, duplexes, apartment buildings, senior living facilities, condominiums and row houses.
- ☐ Commercial: Includes properties used for retail, office, entertainment, hotels, parking and other services.
- ☐ Mixed-use Residential/Commercial: Includes multi-level structures where the ground level supports commercial uses like retail, while the top levels support residential uses like apartments, condominiums and lofts.
- ☐ Industrial: Includes properties used for manufacturing, storage areas, warehousing, junk yards, landfill operations and waste disposal sites.
- ☐ Institutional: Includes all public and religious buildings, including churches, schools, government offices, libraries, permanent park structures and hospitals.
- ☐ Unknown: The use of the property cannot be determined from looking at the outside alone.

How many residential units?

- ☐ Single Family: A house designed for occupancy for one family and has only one address number.
- ☐ Multi-Family: A single building designed for occupancy for one to three families with multiple addresses.
- ☐ Apartments: Individual or multiple buildings designed for occupancy by four or more families.
- ☐ Garage/Shed: A detached garage or shed which is the only structure on the parcel.

What type of commercial occupants?

- ☐ Restaurant/Bar: Stand-alone eateries and drinking establishments.
- ☐ Grocery: Stand-alone stores where people can buy food. Sale of food may not be the primary purpose of the business. Includes liquor stores.
- ☐ Retail: Stores that sell items to the general public.
- ☐ Service: Businesses that provide a service to the general public, including banks, hair salons, tattoo parlors, auto repair shops.
- ☐ Offices: Businesses that provide services or office spaces for individual or multiple tenants.
- ☐ Entertainment: Structures whose sole purpose is to provide entertainment.
- ☐ Multi-Occupant: A building housing multiple commercial business, but no residential units. Small strip malls.
- ☐ Other: for when you're unsure about what the commercial building is being used for.

What type of industrial occupant?

- ☐ Manufacturing: Manufacturing and production plants that generally do not do business with the general public.
- ☐ Warehouses: Buildings that store goods, but don't produce them. Indicators include large loading docks, and signage indicating warehouse use. May be multi-story.
- ☐ Multi-occupant: Multi-occupant industrial buildings have multiple tenants or companies, and are sometimes located in industrial parks.
- ☐ Other: For when you're unsure about what the industrial building is used for.
- ☐ Not an industrial use.

What type of institutional occupant?

- ☐ Schools: Any building whose primary purpose is that of education.
- ☐ Religious: Any building whose primary purpose is religious in nature. This includes a wide range of buildings from cathedrals down to storefronts. Primarily places of worship, but also buildings where religious services are offered.
- ☐ Public Safety: Primarily police and fire stations. Does not include private security firms.
- ☐ Health: Hospitals, health centers, medical clinics. Any place where medical services are offered, including doctors offices.
- ☐ Recreation: Different from a park in that it has a permanent structure on it for the purpose of recreation.
- ☐ Government: Government buildings are offices through which the local, state and federal government operate out of. Includes libraries.
- ☐ Non-Profit/Charity: Organizations providing services to the needy, including soup kitchens, homeless shelters.
- ☐ Other: For when you're unsure about what the institutional building is being used for.

What is the condition of the structure?

- ☐ Good: No obvious repairs needed.
- ☐ Fair: Needs minor repairs. Windows and doors are intact, but roof may be missing shingles, exterior elements may be sagging, painting/siding missing, graffiti.
- ☐ Poor: Needs major repairs. Windows and doors are broken or boarded up. Light fire damage that can be repaired. Non-load bearing elements like awnings/porches collapsed. Holes in roof.
- ☐ Suggest Demolition: No longer shaped like a building. Damaged beyond practical repair or renovation. Structural damage including collapse of roof, walls, foundation. Uninhabitable.

Is the structure fire damaged?

- ☐ Yes: Indications of fire in or around the structure that caused visible damage, from as small as melted siding to buildings that have burned to the ground.
- ☐ No: No apparent fire damage.

What is the level of fire damage?

- ☐ Minor: Visible damage to the building that is superficial or repairable, and does not render the building uninhabitable. Includes soot marks around doorways and windows.
- ☐ Major: Significant damage to the building that would be costly to repair and makes it uninhabitable. Major may include holes in the roof, but once there is any sort of structural collapse, the damage level is considered collapsed.
- ☐ Collapsed: Fire that has caused partial or total structural collapse, making it no longer building-shaped. This includes buildings that have burned down to the foundation. Walls may still be standing, but parts or all of the roof have caved in.
- ☐ No fire damage.

Is the building open to trespass?

- ☐ Secured: A building is secured when all windows or doors are intact or secured. This includes occupied buildings with orginal windows/doors, and buildings that may be vacant but are not open to trespass.
- ☐ Open to Trespass: If a building has missing windows, doors or is otherwise open and accessible to scrappers, squatters, or vandals, it is open to trespass.

What is the site used for?

- ☐ Vacant Lot: A lot that is not being used.
- ☐ Parking Lot: A lot used for parking, can be paved or unpaved. Does not include cars on lawns.
- ☐ Park: A lot that is clearly designated or has some permanent indicator or park use such as playground equipment and trails.
- ☐ Garden: Land being used for agricultural purposes, includes personal gardens and larger farms.
- ☐ Other: For when you're unsure about what the lot is being used for.
- ☐ Attached lot: A lot adjacent to or in between occupied houses that is clearly maintained or used as an extension of an existing property. Attached lots are not considered vacant lots because they are in use.

Is the lot maintained?

- ☐ Yes: A lot is maintained when the lot shows sign of care and maintenance, regardless of what is physically on the lot. Grassy lots are mowed with some regularity and paved lots show signs of consistent car.
- ☐ No: Characteristics of an unmaintained lot include tall grass, overgrown trees or bushes, weeds in the cracks or pavement and so on.

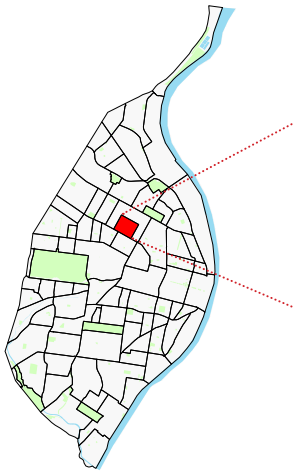
Is there dumping on the site?

- ☐ Yes: Debris has been purposely left or placed on the property. This does not include litter or debris from a recent fire or ongoing demolition.
- ☐ No: No trash or debris on site.

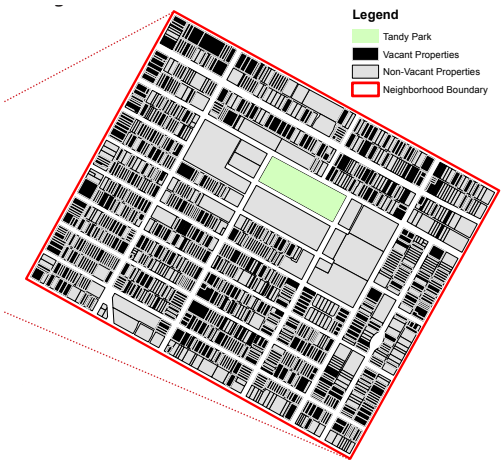
Note the condition of site elements.

- ☐ Sidewalks:
- ☐ Streets:
- ☐ Trees:

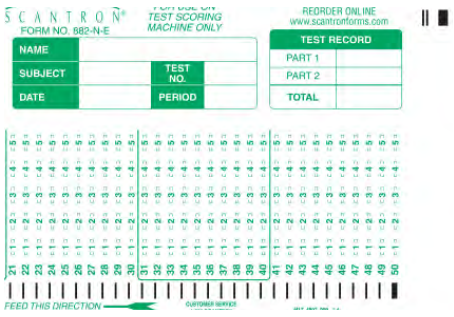
Step 1: Locate Neighborhood



Step 2: Indicate Parcel



Step 3: Answer Survey Questions



Although a majority of surveying with this method is not digital, inputting answers into either a scantron format grading card or into a very simplified survey app would greatly increase speed of workflow, allowing data to be recorded and used in a more timely manner.

Figure 4.3.4: Use of Paper Surveys Steps in Surveying. *(Rose 2015)*

4.4

COLLECTION, CONNECTION, AND COMMUNICATION: SOCIAL MEDIA CAMPAIGN

A social media campaign would complement the various methods of data collection, because it would foster awareness about the initiative. By leveraging the free marketing power of multiple social media channels including Facebook, Instagram, Twitter, Pinterest, and Tumblr; the City of St. Louis could garner widespread involvement, and thus better data collection. The benefit of social media campaign would be two-fold: it would raise awareness about the data collection initiative, and it would allow citizens to post their ideas in open and public forums, where an engaging dialogue may occur. A deliberate hashtag, such as #ourSTL would get ideas trending.

SOCIAL MEDIA SUPPORT OF VACANCY EVALUATION FRAMEWORK

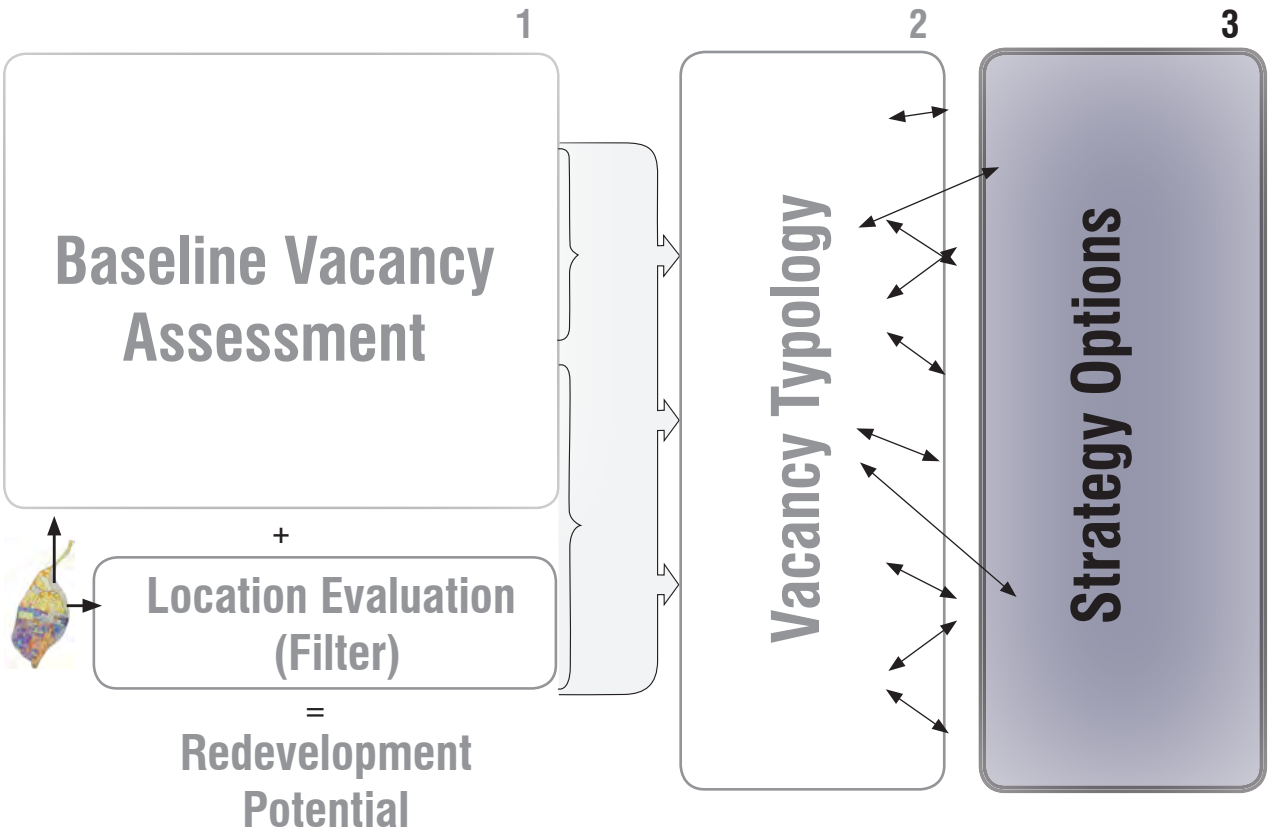
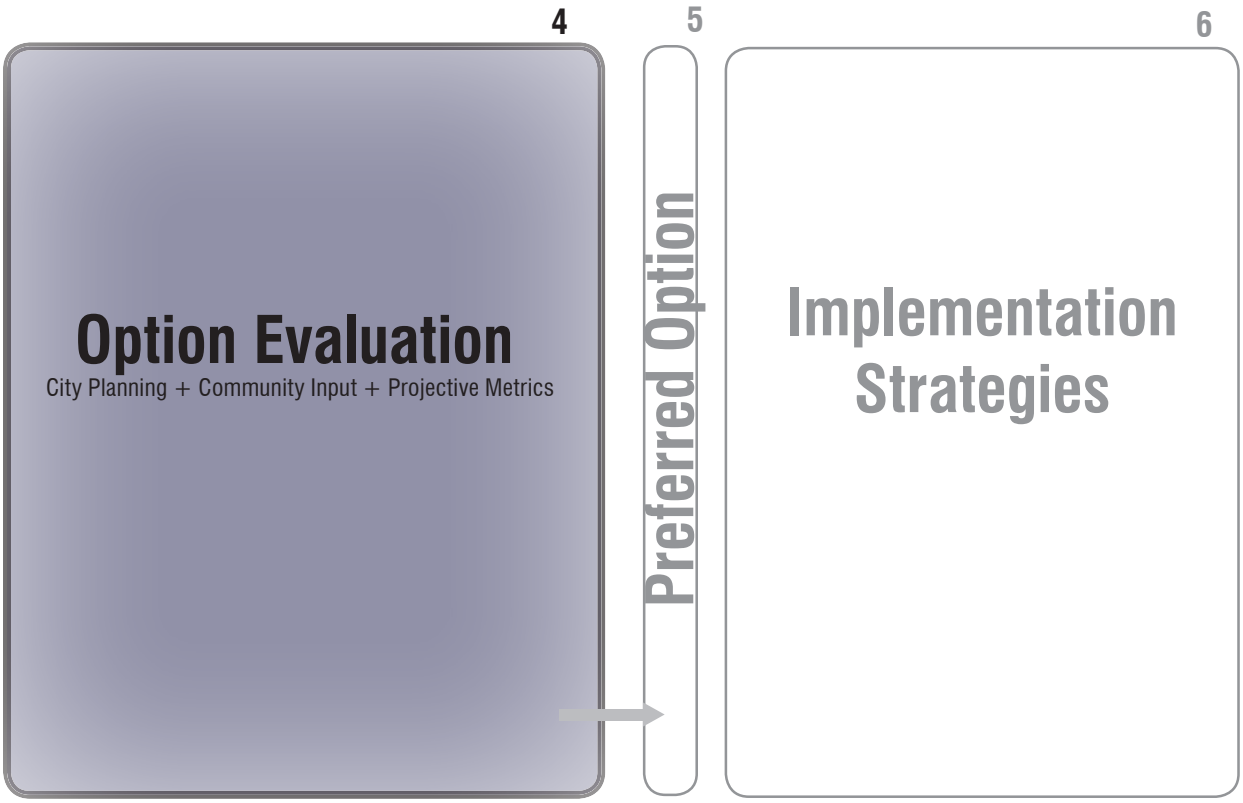


Figure 4.4.1: Social Media Support of Vacancy Evaluation Framework (Adapted From *Hahn 2015*) Shaded Framework steps indicate where social media could be used to collect ideas, opinions and start conversations. (*Rose 2015*)


4
5
6
Option Evaluation
City Planning + Community Input + Projective Metrics
Preferred Option
Implementation Strategies

METHOD 4: SOCIAL MEDIA CAMPAIGN

4

Social Media

PROS

- Little to no technical expertise needed
- Ability to reach a massive market and get ideas 'trending' with hash tags
- Utilize free social media sites to raise awareness and encourage civic involvement
- Multiple platforms and creative communications
- Encourages civic engagement and ideation
- Gives a positive image

CONS

- Will need to be centrally managed, controlled and updated
- Time intensive
- Difficulty organizing data

Data Collection Method Evaluation Table 4- Social Media Campaign	
Required Personnel	Social Media Outreach Manager
Data Integrity	Low quantitative data, High qualitative data
Short-Term Costs	Free Social Media Platforms
Long-Term Costs	Hiring a Social Media Director
User of Data:	City of St. Louis, Citizens

Figure 4.4.2: Data Collection Method Evaluation Table 4 - Social Media Campaign. *(Bruns 2015)*

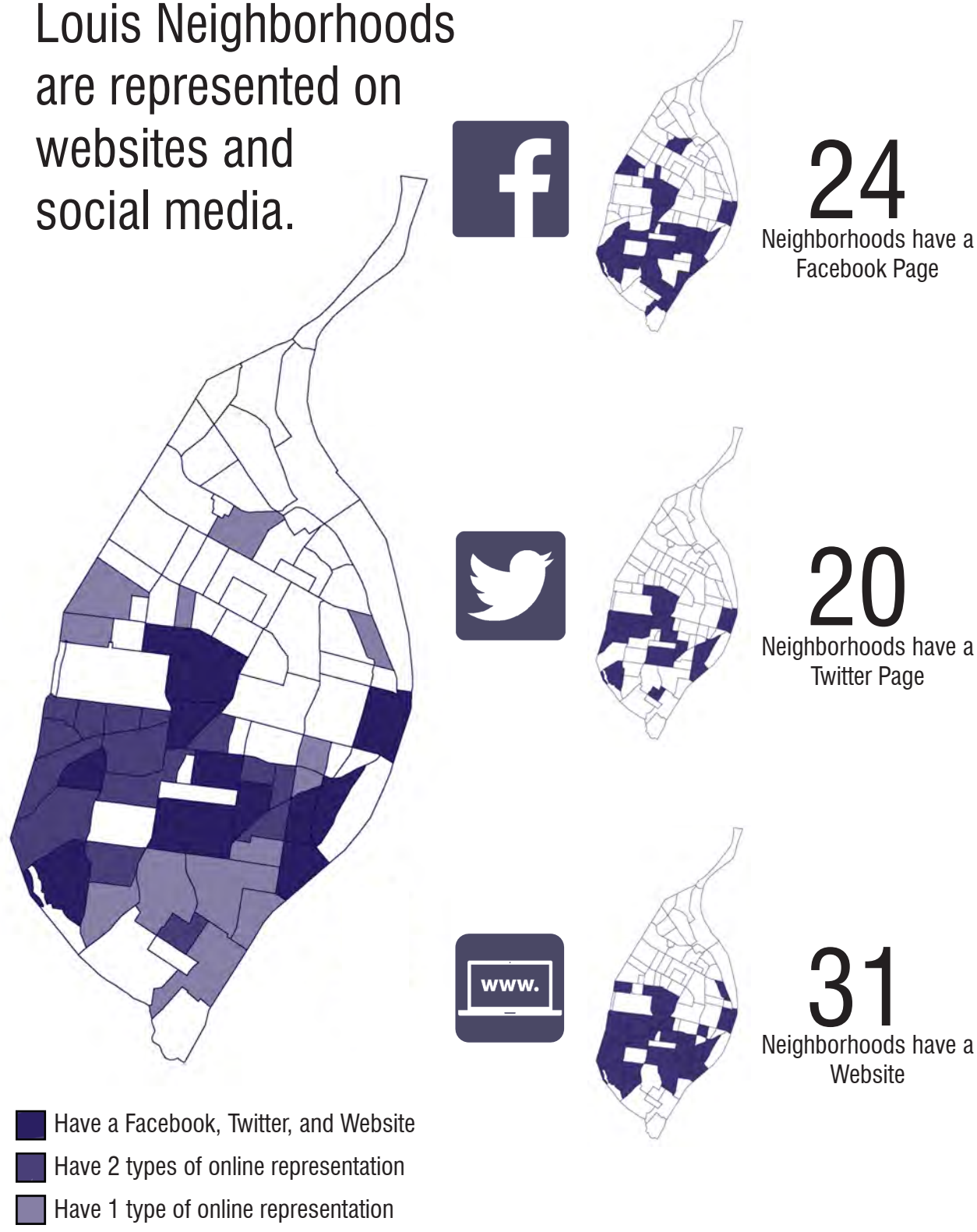


Figure 4.4.3: Neighborhood Social Media Usage *(Armstrong 2015)*

EXAMPLE TWITTER PAGES

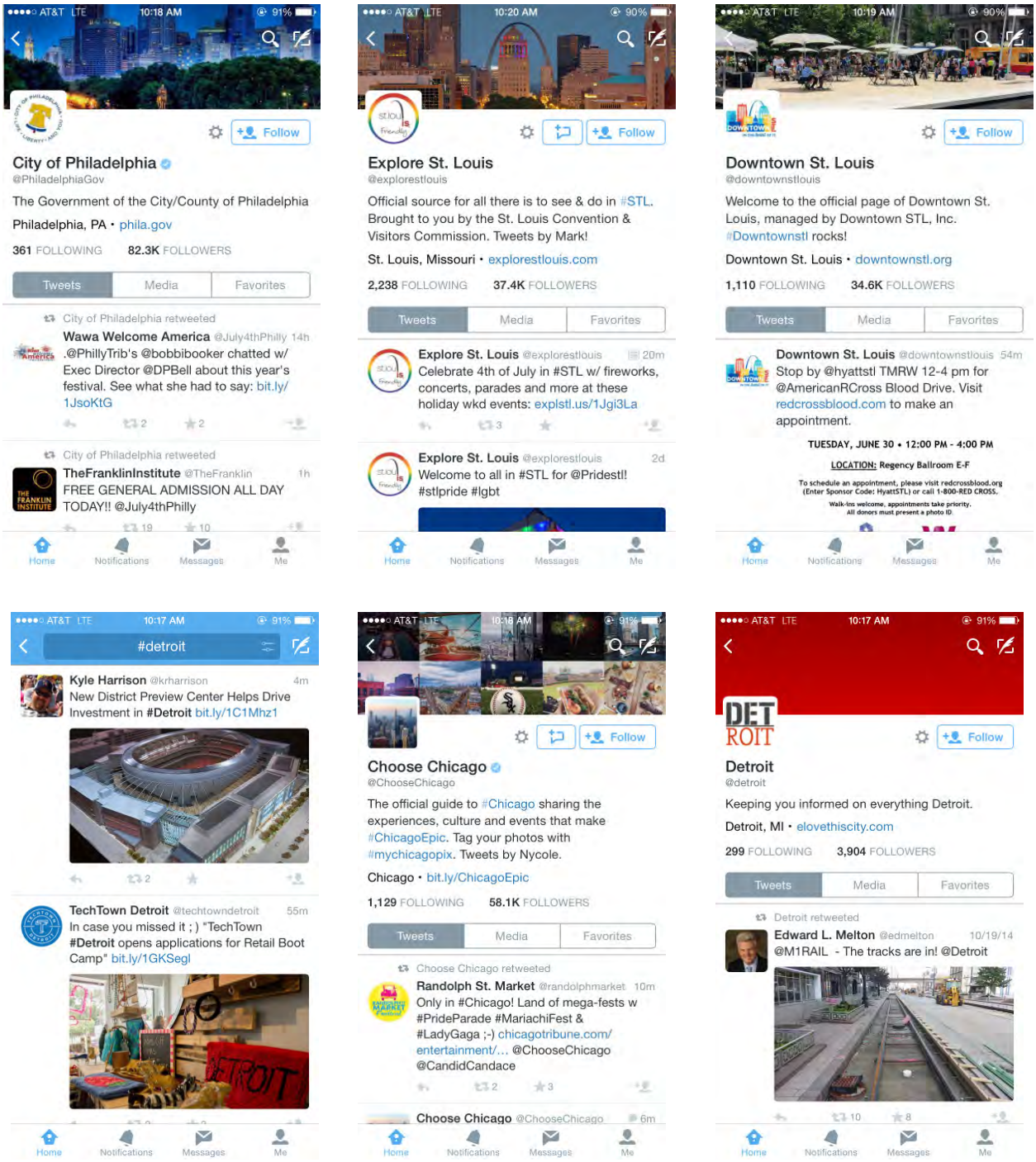


Figure 4.4.4: Example Twitter Pages Philadelphia, St. Louis, Detroit & Chicago. *(Adapted from Twitter 2015)*

EXAMPLE INSTAGRAM PAGES

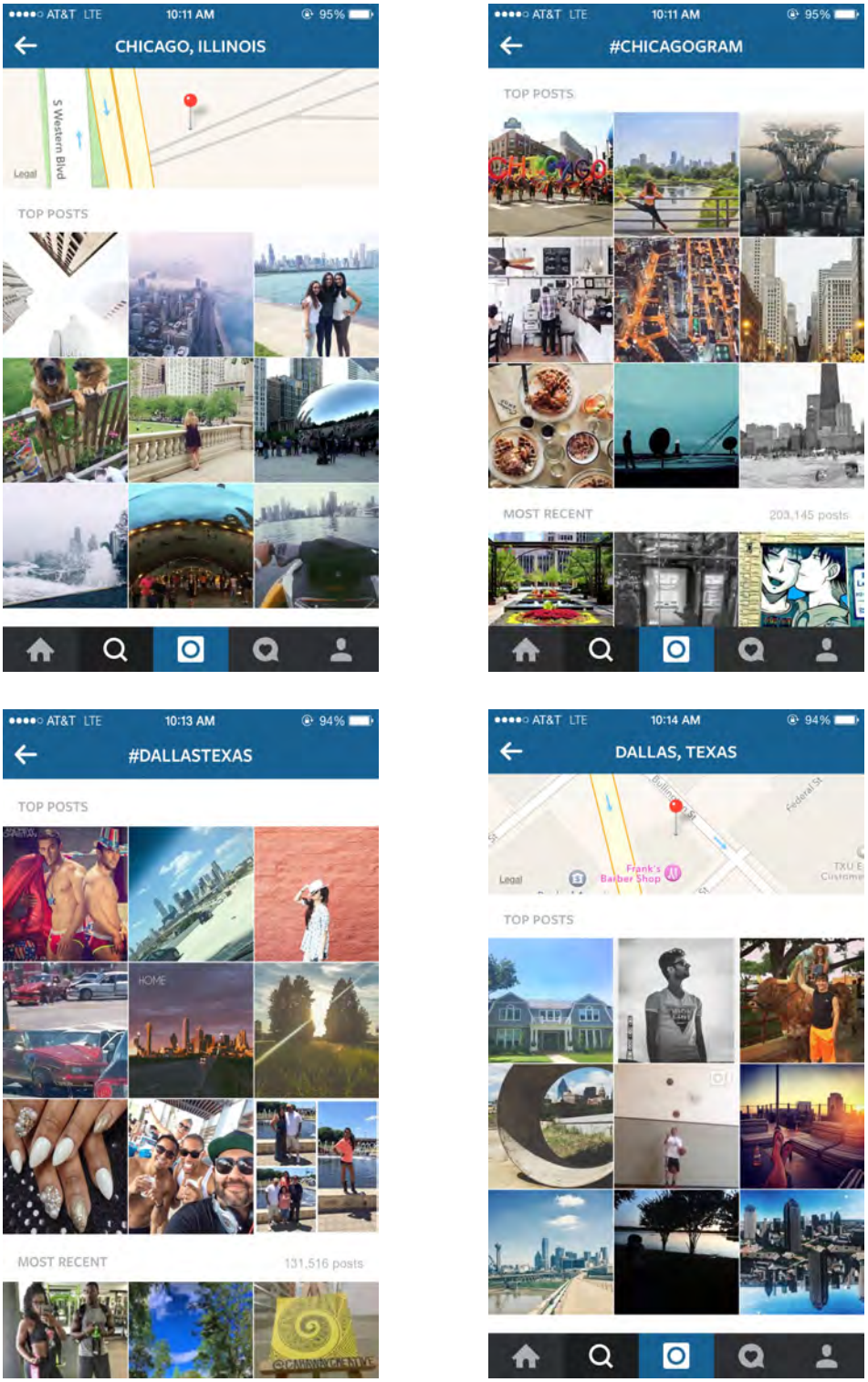
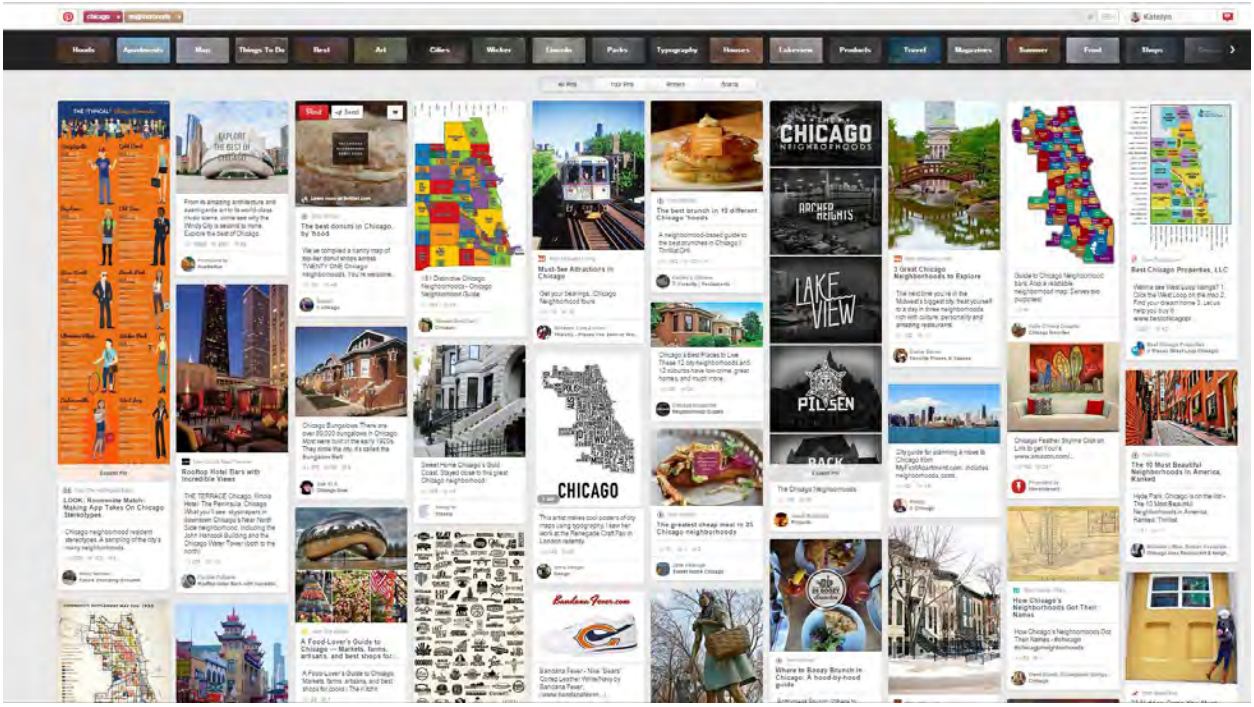


Figure 4.4.5: Example Instagram Pages Chicago & Dallas. *(*Adapted from *Instagram 2015)*

EXAMPLE PINTEREST PAGES

Chicago



Detroit

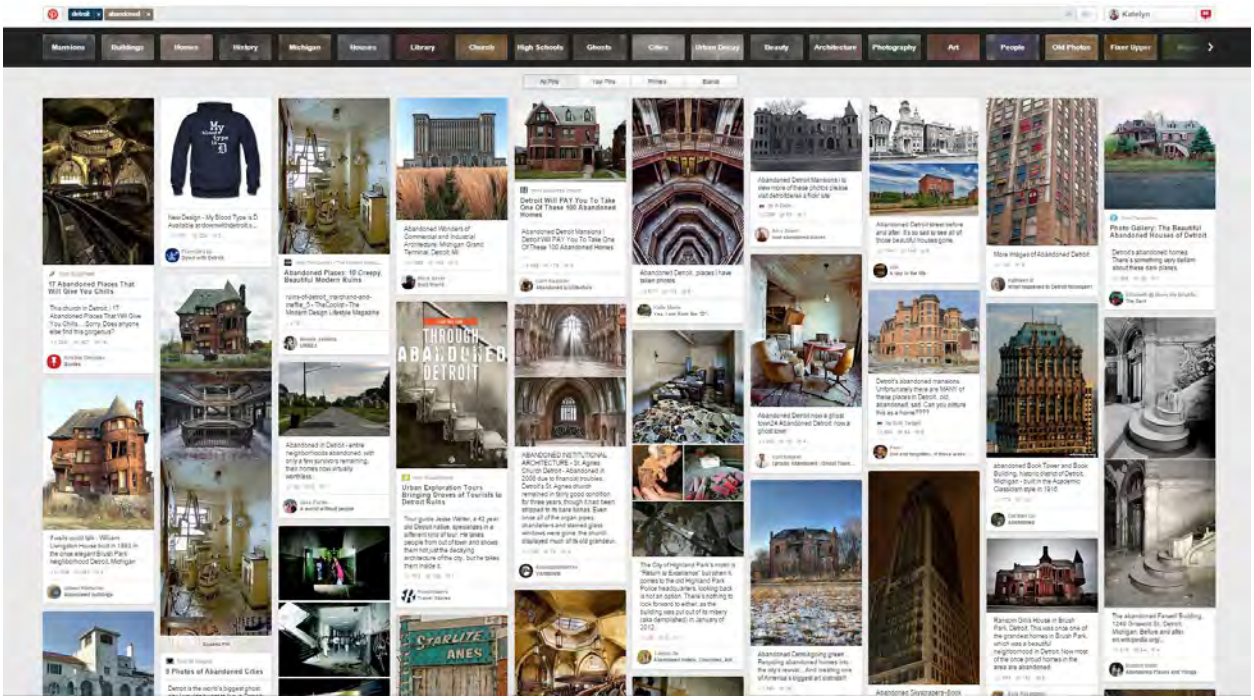


Figure 4.4.6: Example Pinterest Pages Chicago & Detroit. *(*Adapted from *Pinterest 2015)*

#ourSTL

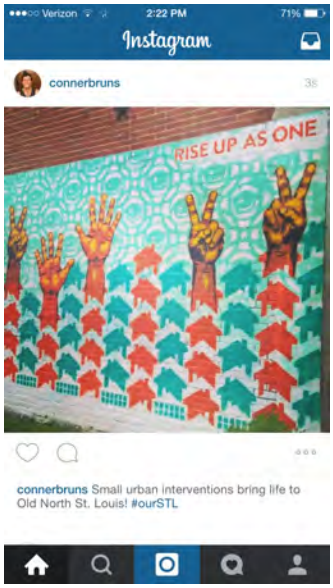


Figure 4.4.7: St. Louis Instagram. #ourSTL. *(Adapted from Instagram 2015)*

Figure 4.4.8: St. Louis Twitter. #ourSTL. *(Adapted from Twitter 2015)*

These examples of Instagram and Twitter show that a hashtag could be easily used by the public. After a hashtag is used, other users or the city can easily search the hashtag to see what others are posting about, that are related to the ourSTL movement.

Figure 4.4.9: PlaceSpeak. Allows for citizen conversation and input . *(Adapted from PlaceSpeak 2014)*

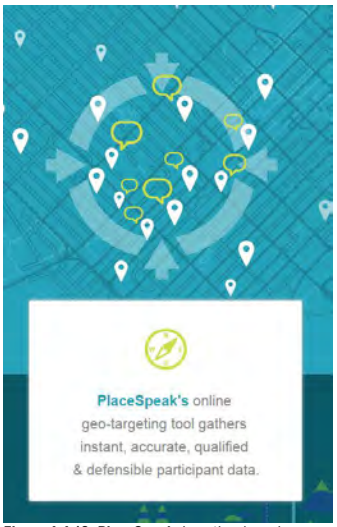


Figure 4.4.10: PlaceSpeak. Location-based Information Collection . *(Adapted from PlaceSpeak 2014)*

PlaceSpeak is an online location-based community consultation utility to allow participants to interact with topics in their neighborhoods, cities or regions. By geoverifying our user base, PlaceSpeak provides a platform for the City of St. Louis to collect the evidence based feedback needed to make informed decisions.

4.5

COLLECTION, CONNECTION, AND COMMUNICATION: FUNDING OPPORTUNITIES

The purpose of this section is to make readers aware of the variety of funding types available to St. Louis. Three of the funding opportunities indicated in this section are useful for the city, while the fourth funding opportunity is intended more for individuals, non-profit groups, or private project leaders. The funding opportunities for the city—What Works Cities, SC2, and 100RC—provide monetary support along with program and technical support. For this reason, these three funding opportunities will be most effective for the city if the strategies of the three initiatives are connected together by sharing common goals. The private funding opportunity—KickStarter—could be used by the city for smaller experimental projects. But the intention of including funding opportunities in this section is mainly to point individuals and independent groups with new, creative, progressive project ideas for St. Louis in a direction where they can make their dream known, and potentially get funded.

FUNDING OPPORTUNITIES SUPPORT OF VACANCY EVALUATION FRAMEWORK

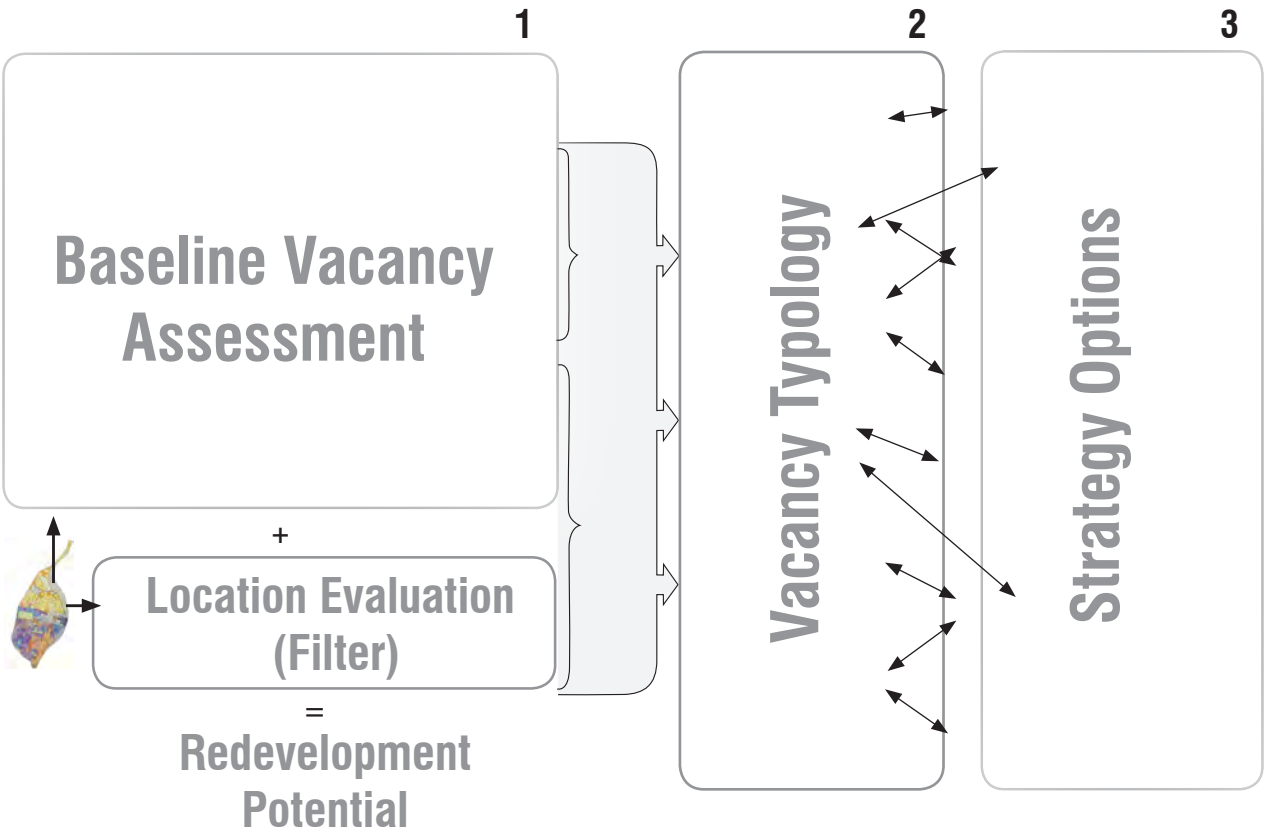
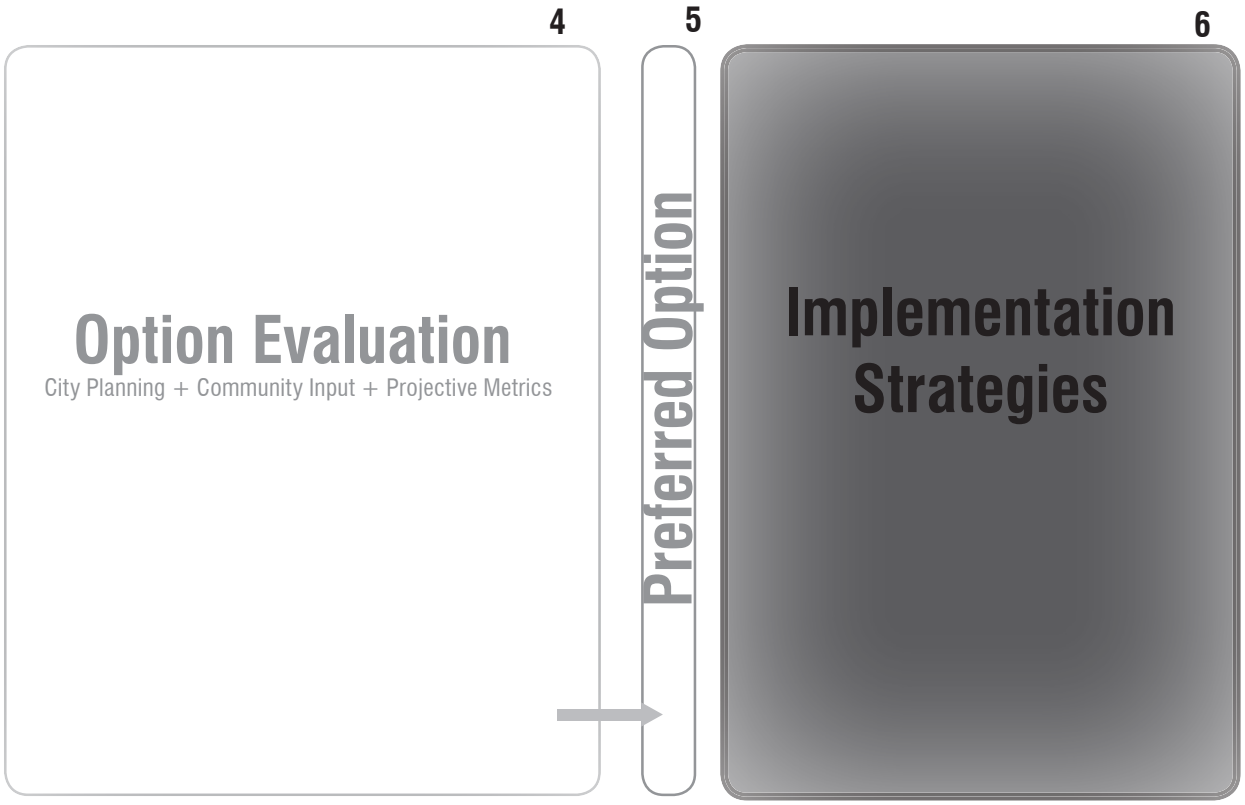


Figure 4.5.1: Funding Opportunities Support of Vacancy Evaluation Framework (Adapted From *Hahn 2015*) Shaded Framework steps indicate where funding could be used to implement strategies of addressing vacancy. (*Rose 2015*)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Option Evaluation
City Planning + Community Input + Projective Metrics
Preferred Option
Implementation Strategies

FUNDING OPPORTUNITIES

$

Funding Opportunities

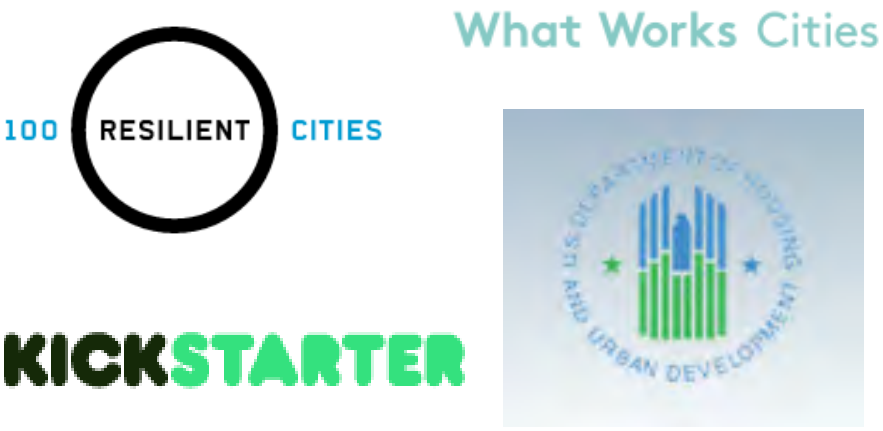

Figure 4.5.2: Funding Logos Four Different Opportunities. *(Rose 2015)*

1 WHAT WORKS CITIES BY BLOOMBERG PHILANTHROPIES

"What Works Cities is a new, national initiative from Bloomberg Philanthropies. Its mission is to elevate and accelerate cities' use of data and evidence to engage citizens, make government more effective, and improve people's lives" (Bloomberg Philanthropies, 2015). The philanthropic organization is investing $42 million in this effort, and only 100 cities across the United States (that meet the eligibility criteria) will be selected. The eligibility criteria is very straightforward. All U.S. cities with a population between 100,000 and 1,000,000,000 are eligible to participate. As of June 9, 2015 108 cities scattered across the country have already applied for the program, indicating a strong demand across the U.S. for data-driven decision-making. Their mission is simple: "to serve citizens in the most effective ways possible." All cities selected as What Works Cities would receive support from five world-class partners including: The Center for Government Excellence at John Hopkins University, Results for America, The Sunlight Foundation, The Behavioral Insights Team, and the Government Performance Lab Harvard Kennedy School.

FUNDING:

$42 million for 100 U.S. Cities

SUGGESTION:

If the City of St. Louis has not already, it is our suggestion that a statement of interest and an application for the program be filed with Bloomberg Philanthropies as soon as possible. There is no indication of when the applications will be closed, therefore it is safest to assume the sooner the better.

2 STRONG CITIES, STRONG COMMUNITIES (SC2) BY THE WHITE HOUSE

SC2 is the second cohort of cities to be admitted into this program, which was initially launched by the Obama Administration in July of 2011, The primary objective of the initiative is "to build ladders of opportunity for all Americans who are working hard to make it to the middle class" (United States Department of Housing and Urban Development, 2014). Through strategic investments and partnerships, SC2 is attempting to provide funding, support, and technical expertise to communities that were hardest hit by the recession. Cities which are part of the SC2 cohort include: Brownsville, TX; Flint, MI; Gary, IN; Macon, GA; St. Louis, MO; Rockford, IL; and Rocky Mount; NC.

FUNDING:
Over $368 million in existing federal funds and investments

SUGGESTION:
Devise a strategy for how the goals of SC2, What Works Cities, and 100 Resilient Cities could align and work towards like-minded objectives.

3 100 RESILIENT CITIES (100RC) BY THE ROCKEFELLER FOUNDATION

"100RC is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. 100RC supports the adoption and incorporation of a view of resilience that includes not just the shocks – earthquakes, fires, floods, etc. – but also the stresses that weaken the fabric of a city on a day to day or cyclical basis" (100 Resilient Cities, 2015). The acute shocks and chronic stresses that cities around the world face must be addressed and managed at a scale that will make a difference, which is why a core component of 100RC is to establish a new position in city government, a Chief Resilience Officer (CRO).

FUNDING:
Varies, but "the value of our core offerings will likely far exceed $1 million for each city" (100 Resilient Cities, 2015).

SUGGESTION:
Identify how St. Louis can become more resilient through data-driven decision-making, and the role that the CRO of the city plays in coordinating these initiatives and funding opportunities. In the upcoming resilience plan for the city, outline how What Works Cities, SC2, 100RC, and other initiatives would be coordinated such that they inform and inspire one another.

4 KICKSTARTER PROJECT FUNDING PLATFORM

Kickstarter is an international funding platform that helps projects big and small "come to life" through the support of donors. "We believe that creative projects make for a better world, and we're thrilled to help support new ones. Building a community of backers around an idea is an amazing way to make something new" (KickStarter, 2015). Through this website independent creators launch their projects setting a funding goal and deadline. The idea is all or nothing—all projects must reach their funding goals to receive any money.

FUNDING:
Funding varies greatly using KickStarter. Funding depends on the goal and deadline of the project creator along with the popularity of the project among backers or "investors."

SUGGESTION:
This creative project funding effort could be used in many ways for St. Louis. Kickstarter is an ideal source of funding for non-profit, religious, and volunteer groups looking to begin projects in St. Louis. Also, if there are smaller pilot projects the city is wanting to implement but stalled because of funding, Kickstarter could be the answer.

CHAPTER CONCLUSIONS

The City of St. Louis, Missouri has already been utilizing its plethora of data resources in order to make more informed decisions about land-use redevelopments. Open data is something that the city supports heavily, as valuable datasets and ArcGIS shapefiles are shared publicly on the city's website. However, every city can always learn how better to manage and organize this data while obtaining a higher degree of citizen involvement. The idea of crowdsourcing data collection is not new, in fact, many other cities have leveraged the power of harvesting data to solve urban dilemmas. For example, the city of New Orleans, which faces similar conditions of blight and vacancy, launched its BlightSTAT program in 2010, which allowed citizens as well as city officials to participate in a survey which evaluates the city's progress on urban blight. Embracing open data offers many benefits to cities, including managing resources more effectively, fostering a sense of trust and transparency, and making informed place-based decisions. We hope that this chapter can be utilized by the city of St. Louis in order to strategize how best to coordinate the various methods of data collection it may pursue. Whether it be an app, a website, a social media campaign, or some combination of the four, this can serve as a framework from which priorities can be discussed and decisions can be made. In order to work towards common goals and the betterment of St. Louis, it is important that the multiple initiatives/efforts that can offer funding or expertise to St. Louis, such as SC2, 100RC, What Works Cities, and Kickstarter, are all coordinated and managed collectively. St. Louis has faced significant challenges in its past, but the Gateway City is well on its way to becoming "THE urban place in this part of the world," and data-driven decision making will help realize that goal more quickly and more efficiently.

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IMAGES

Figure 4.1.1
Hahn, Howard. 2015. "Vacancy Evaluation Framework."

Banner Image
"Detroit-Superior Bridge." September 9, 2006. Photograph by flickr user Cuyahoga jco. Accessed July 13, 2015. Reproduced from flickr, https://www.flickr.com/photos/cuyahogajco/1367492182/in/photolist. Made available under Attribution 2.0 Generic Creative Commons License, https://creativecommons.org/licenses/by/2.0/.

Figure 4.1.2
Bruns, Conner. 2015. "Data Collection Evaluation Table."

Figure 4.1.3
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Figure 4.1.4
Evans, Micheal. "Loveland Technologies: Putting the World Online One Parcel at a Time." Accessed June 29, 2015. https://makeloveland.com/company.

Banner Image
Hahn, Howard. 2015. St. Louis Meeting. Digital Photograph.

Figure 4.1.5
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Figure 4.1.6
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Figure 4.1.7
Rose,Katelyn. 2015. “St. Louis Application Design.”

Figure 4.2.1
Hahn, Howard. 2015. “Vacancy Evaluation Framework.”

Banner Image
Bruns, Conner. 2015. Old North Neighborhood. Digital Photograph.

Figure 4.2.2
Bruns, Conner. 2015. “Data Collection Evaluation Table.”

Figure 4.2.3
Kelsey, Steward. 2015. “Website Interface.”

Figure 4.2.4
Kelsey, Steward. 2015. “Website Interface.”

Figure 4.2.5
Kelsey, Steward. 2015. “Website Interface.”

Figure 4.2.6
Kelsey, Steward. 2015. “Website Interface.”

Figure 4.2.7
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Figure 4.2.8
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Figure 4.2.9
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Figure 4.3.1
Hahn, Howard. 2015. “Vacancy Evaluation Framework.”

Banner Image
Bruns, Conner. 2015. Vacant Land. Digital Photograph.

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“Mobiles By A Wall.” May 21, 2010. Photograph by flickr user Garry Knight. Accessed July 13, 2015. Reproduced from flickr, https://www.flickr.com/photos/garryknight/4659579077/in/photolist. Made available under Attributuion 2.0 Generic Creative Commons License, https://creativecommons.org/licenses/by/2.0/.

Figure 4.4.2
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Figure 4.4.10
PlaceSpeak Inc. 2014. “Conduct an Online Consultation.” Accessed July 15, 2015. https://www.placespeak.com/consult/

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Banner Image
“Money.” July 25, 2014. Photograph by flickr user Pictures of Money. Accessed July 13, 2015. Reproduced from flickr, https://www.flickr.com/photos/pictures-of-money/17102022497/in/photolist. Made available under Attribution 2.0 Generic Creative Commons License, https://creativecommons.org/licenses/by/2.0/.

Figure 4.5.2
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5

CONCLUSIONS

An optimistic future lies ahead for the City of St. Louis. We set out to study vacancy conditions and develop new visions for addressing the many vacant parcels affecting the economy and social character of the region. Ideas continued emerging throughout the progression of the seminar research and studio project. Using research discovered in seminar readings revealed new and innovative avenues for development. This document begins to express alternatives to development strategies that may benefit the growth of the city, physically and socially. Our research inquiries helped us to visualize the potential of St. Louis and the numerous options for addressing vacant parcels.

The work presented here encompasses a broad spectrum of ideas compiled by our studio. Some of these ideas are visionary while some are pragmatic, creating a variety of proposals applicable to the city leadership and residents. Some ideas suggest immediate action, while others implement a lengthier holistic plan for the entire city. These proposals have an element of give-and-take between each other, able to be implemented by themselves, or as a combination of solutions.

Urban vacancy is a very challenging dilemma. High density of vacancy in struggling neighborhoods is particularly difficult, and there are no easy solutions. Thinking about the future of high-vacancy urban areas requires a shift in perspective away from traditional planning models, which rely heavily on comprehensive planning and assumptions of growth and investment, toward non-traditional models that consider indeterminate variables, placeholders, and ad-hoc incremental improvements on the part of many urban actors. High rates of violent crime, particularly homicide, hinder overcoming vacancy at all scales.

Through our general research of urban vacancy, and our in-depth study of St. Louis in particular, it seems there are primarily three overall strategies for action. The first, which we have deemed "mild," promotes grassroots efforts on the part of individual change-makers and non-profit organizations. Ideas supporting the mild strategy are generally low-cost and can be implemented in a year or less. They are sensitive to cultural context, and might improve the quality of life for residents in high-vacancy areas. While they are unlikely to make sweeping changes quickly, they may result in improving conditions in localized areas, which could yield momentum for widespread change over time.

Larger-scale and more ambitious, the "hot" strategy involves neighborhood engagement and consolidating parcels for repurposing land into deliberate long-term uses. Some of these uses, such as urban agriculture, may provide small-scale employment opportunities, and may serve as a temporary placeholder until economic conditions warrant redevelopment investment. Hot ideas demand collaboration between local stakeholders and civic leaders, and promote re-envisioning districts with non-traditional functions in an urban context. They may require planning policy changes and relocating some residents living in high-vacancy areas.

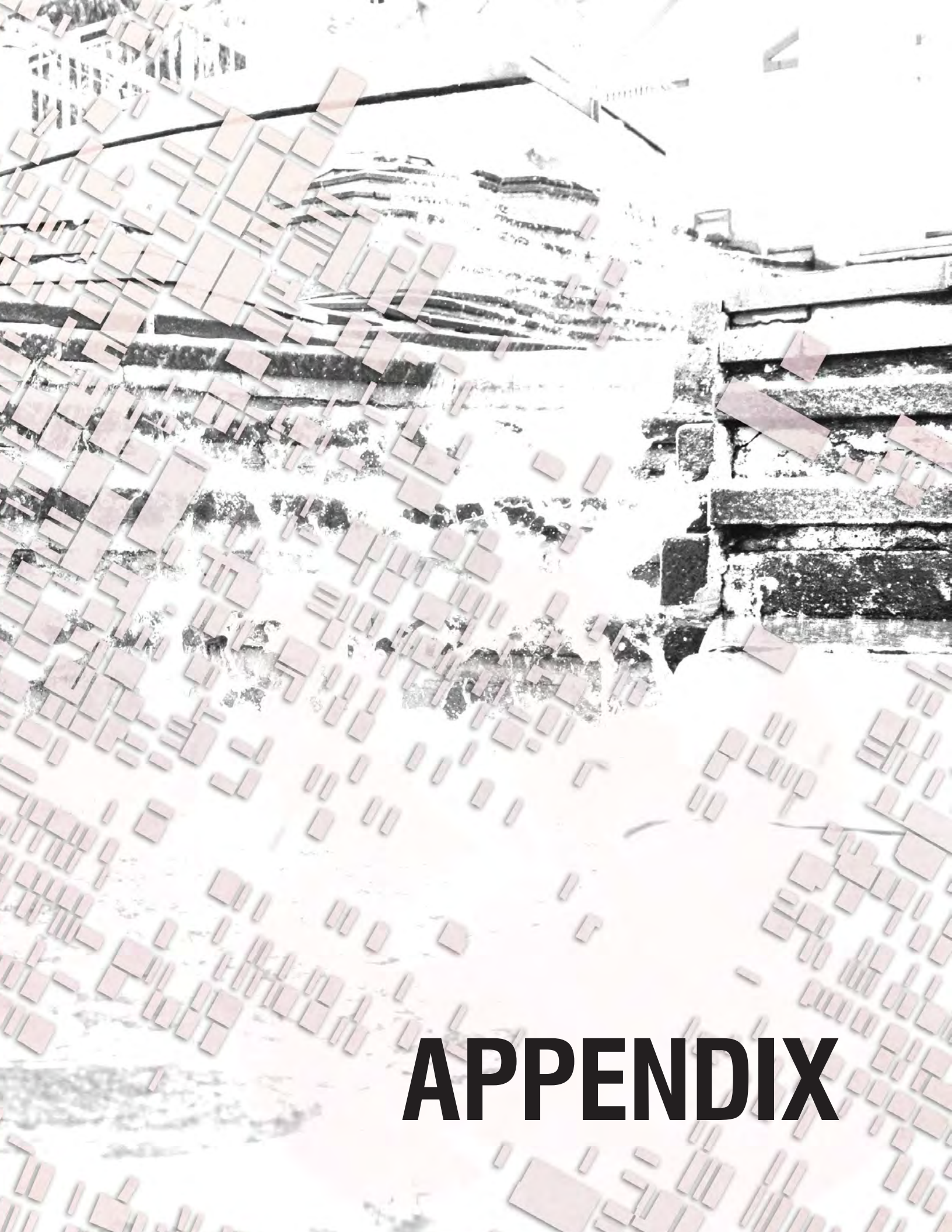
The most ambitious efforts fall under the "spicy" strategy, which would require large investment from public and/or private sources and a decades-long time horizon for implementation. Significant relocation incentives would be required to open large tracts of land for major initiatives, such as sports complexes or large-scale green infrastructure. While the spicy strategy has the potential to create significant employment opportunities and catalyze large-scale future investment and growth from private investors, it may overwhelm local social systems and significantly alter the character of entire neighborhoods.

The primary outcome from Parcels to Peppers is five tools for action. The first is an encyclopedia of over 60 ideas for repurposing vacant land and salvageable abandoned buildings. The encyclopedia, which ranges from mild ideas already being implemented by the LRA and other actors to highly ambitions alterations in urban land use, might inspire action from a variety of players at a variety of scales. The second tool is a vacancy typology worksheet that empowers residents and landowners to evaluate vacant lots and match appropriate ideas for action. The third tool, Outreach and Communication suggests ideas for connecting people with a common purpose and collecting ideas for change. Information Collection is the fourth tool, which proposes different methods for gathering relevant data about vacant parcels to fill gaps in the city's databases. Lastly, and perhaps most significant, the Vacancy Evaluation Framework provides a holistic and sophisticated armature for connecting the other four tools and assisting decision-makers and large-scale investors to implement vacant land repurposing strategies.

From the student's perspective the process of developing research, making maps, and developing tools has allowed for a deeper understanding of St. Louis, as it exists today, as well as a thorough understanding of its future potential. The experiences gained through this studio have better prepared us to work in the professional field of landscape architecture and urban design, demonstrated by the advancement of students' critical mapping, diagrammatic, communication, and graphic skills. We now feel better

prepared to create more complete, integrated, and resilient solutions for future projects.

Looking forward, vacant parcels have potential to transform St. Louis. Understanding past and present conditions will help planners decide what development opportunities are most appropriate for the City's future. Many of our ideas are ambitious, innovative, and fresh; our hope is that our work will inspire people and bring new life to St Louis. While we recognize the issues we have wrestled with in this studio are highly complex and have been studied for years, we hope Parcels and Peppers will make a contribution to the dialogue on addressing urban vacancy.



APPENDIX

APPENDIX

Critical Mapping

Early in the semester, we followed a method of mapping, research, and design called "Critical Mapping". More than simply gathering and mapping information, Critical Mapping seeks to classify, correlate, and compare site information across a broad spectrum of topics for the directed purpose of identifying dilemmas and opportunities, leading to design strategies. The intent of critical mapping is to (1) help students address wicked problems, those problems with many dynamic interrelated variables, (2) teach students to be adept at shifting between analysis and design, and (3) quickly identify, synthesize, prioritize, and evaluate critical information in generating design strategy.

Some critical maps examine St Louis in the broader regional context relative to demographic conditions and K-12 education, and some maps compare St Louis to other cities. Most critical maps examine the area contained within the city boundary, and many target particular areas of focus.

Mapping relied heavily on Geographic Information Systems (GIS) data supplied by Matthew Mourning with the City of St. Louis Planning and Urban Design Agency. Other data sources include ARCGIS Online, Google Earth imagery, maps and data from city agencies, data published by non-profit organizations, and historical maps and data. We created the maps using ESRI ARCGIS, Adobe Illustrator, and/or Adobe Photoshop. We used Adobe InDesign for page layout.

Critical Mapping Process

Critical Mapping is a cyclical method of working, requiring students to move quickly between critical inquiry, evaluation, creative design and planning, back to critical inquiry, and so on, thus allowing the studio to begin unfolding proposals as information is still becoming available. Each student developed three maps during the second week of the semester, created in a particular order: Truth Maps, Evaluation Maps, and Proposal Maps. This process helped the class better understand conditions, develop planning and design ideas, and develop arguments for their recommendations. Each student created one map during week three, after the field trip to St. Louis. The professors adapted the Critical Mapping Framework from the book "Writing Arguments: A Rhetoric with Readings." (Ramage et al 2012). Figure A.1 details the inquiries, goals, and activities associated with each type of critical map.

Truth Maps

These maps draw out significant conditions from the expanse of available data. There are three types of truth maps: **classification maps** extract and categorize site conditions; **correlation maps** identify two or more variables and investigate possible relationships; and **comparison maps** compare study area conditions with an implemented design in another location or with practices being used elsewhere.

Evaluation Maps

The second type, Evaluation Maps, build on the Truth Map findings and assess existing conditions relative to community agendas, project goals, and/or planning vision. These findings are documented as **opportunity maps** or **dilemma maps**.

Strategy Maps

Lastly, **strategy maps** identify ways to leverage opportunities or overcome dilemmas. Intended to inspire a vision for the future, the strategy maps collectively point toward policy and/or design decisions.

Every map is guided by a focused research inquiry, intended to draw out conclusions salient to the overall project. Students define their question, discuss their methods, and describe their findings in writing to support the graphic mapping. A "headline" serves as more than just a map title, but draws the audience's attention to key conclusions from the mapping exercise.

A select set of critical maps follows. Certainly not every planning issue pertaining to urban vacancy in St. Louis is covered, but we have attempted to probe some of the most relevant and influential conditions and phenomena that might guide our recommendations.

Critical Mapping Framework

	Claim Type*	Research Inquiry	Critical Map	Description	
Truth Maps	Definitional	To what group does this thing (these things) belong?	Classification	Maps that extract and categorize things or conditions in a study area.	
	Causal	What conditions or processes correlate to phenomena?	Correlation	Maps that identify correlations and potential reasons what a certain condition has come to be in a particular place. Correlations have at least two related variables.	
	Resemblance	How is our site like another site?	Comparative	(1) Maps that compare current conditions with an implemented design in another location (precedent study). (2) Maps that compare current conditions or strategies of our site with conditions or practices that are being used elsewhere.	
Value Maps	Evaluation	What do these site conditions mean for the goals of our project?	Dilemma or Opportunity	Maps that apply the agendas of a client, stakeholder, or designer to current site conditions.	
	Proposal	How can we change undesirable conditions or introduce something new and desirable?	Strategy	Maps that make claim about how to accomplish on or more project goals. Strategies proposed should be bi moves that lay the foundation for suture action and often require additional research	

*Critical mapping types are based on 5 claim types used for making arguments.

Ramage, John D., John C. Bean, and June Johnson. 2010. *Writing Arguments : a Rhetoric with Readings.* Vol. 8th. New York: Pearson Longman.

	Goal	Activities	Examples
	Categorize things for the purpose of simplifying complex conditions and identifying relationships. Conclusions from this map should set the stage for identifying dilemmas and/or opportunities.	Measuring, extracting, coding, plotting	Identifying differences in street types, building types, land use, or ecosystem health. Identifying proximity or extractions to on another.
	Describe why something has come to be . - OR - Describe the consequences of past actions. Conclusions from this map should set the stage for identifying dilemmas and/or opportunities.	Relating, extracting, coding, plotting	Explaining potential causes for vacancy in an area, erosion in a particular location, or land values.
	Emphasize similarities and differences. Conclusions from this map should set the stage for identifying dilemmas and/or opportunities.	Comparing, extracting, coding, plotting	Identifying an urban design proposal from another city an placing it in our study area to see ho wit might fit. Comparing budget spending in another city to that of our study area. (Later - comparing one of your strategies to those implemented in another place to evaluate cost, timeframe, or another unknown.)
	Identify either (1) obstacles to achieve goals or (2) locations or processes well positioned for achieving goals. Conclusions from this map should set the stage for identifying on more design strategies.	Applying, evaluating, abstracting	Dilemma: Infrastructure that limits desired growth expansion. Specific conditions that prevent desirable pedestrian environments. Developed areas that prevent ecological connections. Opportunity: Vacant or partially vacant parcels. Large contiguous parcels, or parcels that could be easily assembled for redevelopment.
	Proposed new ideas for accomplishing goals. Conclusions from this map should articulate how the strategies will overcome dilemmas or leverage opportunities and should identify how to move forward. What additional information is needed? Should it be combined with one or more different strategies?	Projecting, proposing, abstracting	Proposing new infrastructure to bridge gaps in connectivity. Proposing new land use policy that will promote desired redevelopment. Proposing new forms or transportation. Proposing green infrastructure solutions that accomplish multiple goals.

Students living in North and Downtown St. Louis are at a disadvantage

Students attending public and private schools in the northern metropolitan area typically have lower test scores

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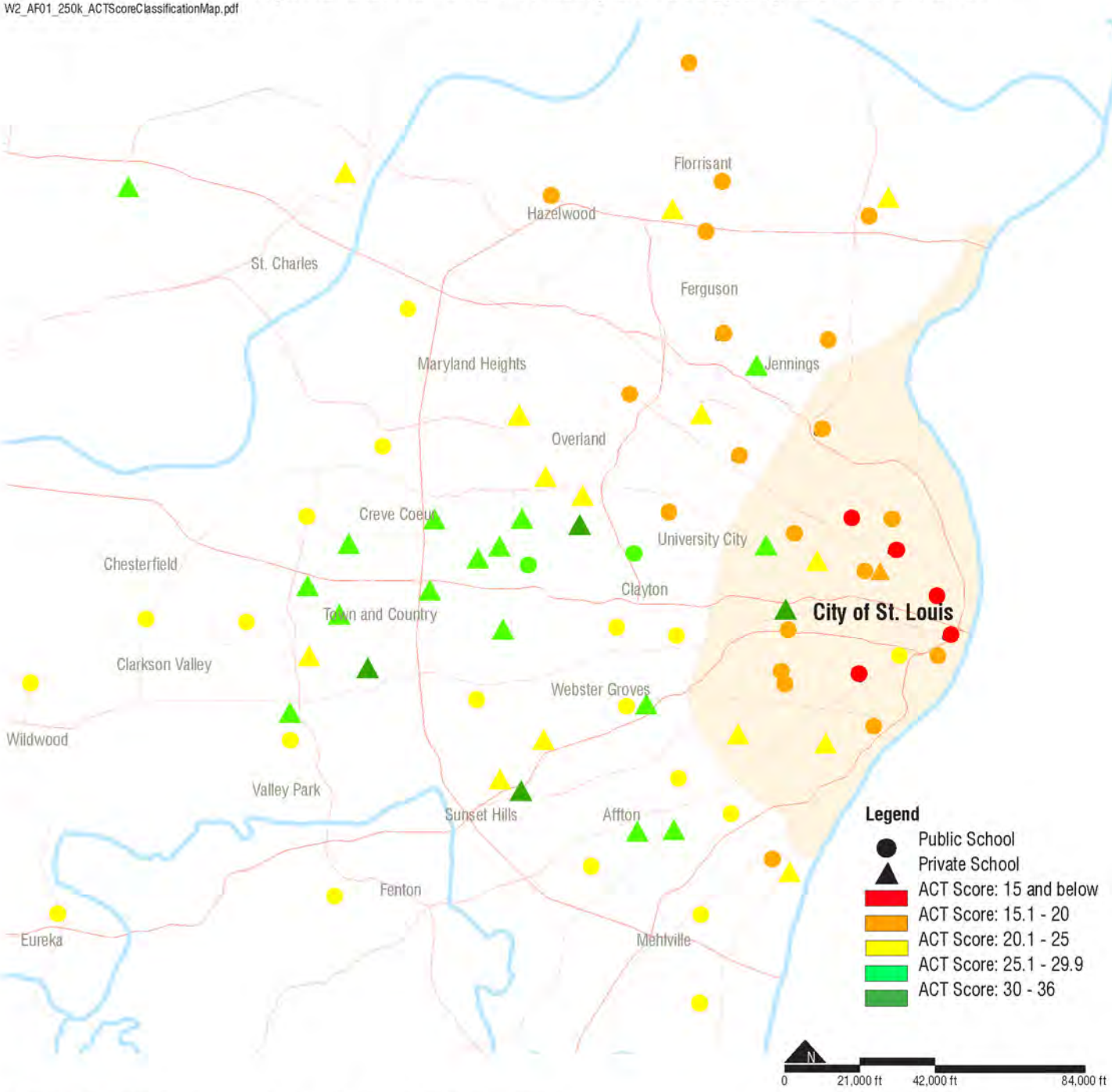


Figure 01. Public and Private Schools in Metro St. Louis ranked by ACT scores
Source: St. Louis Magazine, Missouri Dept. of Elementary & Secondary Education, STL City Schools, Saint Louis Public Schools

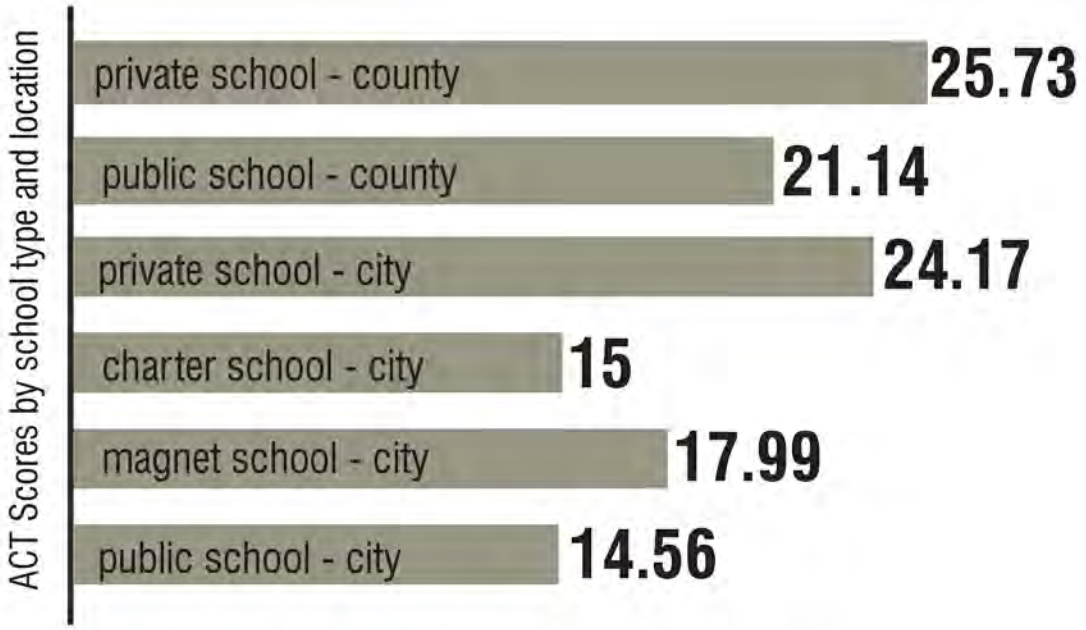
Inquiry: Where are the public and private high schools located in the St. Louis metro area?
Key Extractions: St. Louis Schools, ACT Scores, Education, St. Louis Public Schools, Private Schools, High Schools
Methodology: After gathering information from various websites, school names, locations, ACT scores, attendance rates, tuition rates, spending per student, neighborhood, graduation rate, and college attendance rates were entered into a spreadsheet. Both public and private high schools within the St. Louis Metropolitan area were then separated into categories based on average composite ACT score and mapped.
Conclusions: Students attending schools in northern Metro St. Louis as well as downtown St. Louis are at a significant disadvantage. High schools in this area received lower ACT scores on average than those of students attending schools in West St. Louis County, where scores are significantly higher than in the rest of the metro area. Public schools located north of Delmar Blvd. within the St. Louis Public School District reviewed an average of 15.9 on the ACT, while private schools also within that school district received an average score of 24.1. Every single private school located in the St. Louis Metro area received at least an average of 21 or higher with the exception of one school, Cardinal Ritter College Prep High School, which averaged a 20 and is located just north of Delmar Blvd. in St. Louis City, furthering the "Delmar Divide."

33 **public** high schools in **St. Louis County**

33 **private** high schools in **St. Louis County**

18 **public/magnet/charter** high schools in **St. Louis City**

6 **private** high schools in **St. Louis City**



Highest Scoring Public School: Clayton High School, 26
Highest Scoring Private School: John Burroughs School

	CITY	COUNTY	PRIVATE
Spending per student:	**$14,375**	**$11,802**	**$16,036**
Graduation rates:	**80%**	**89%**	**99%**
Composite ACT:	**15.85**	**21.14**	**25.48**
Free/Reduced Lunch:	**82%**	**42%**	Not Applicable

Poorly Performing Schools Located in Areas of Distress

Majority of St. Louis's low-scoring schools are located in areas categorized as distressed by state of Missouri

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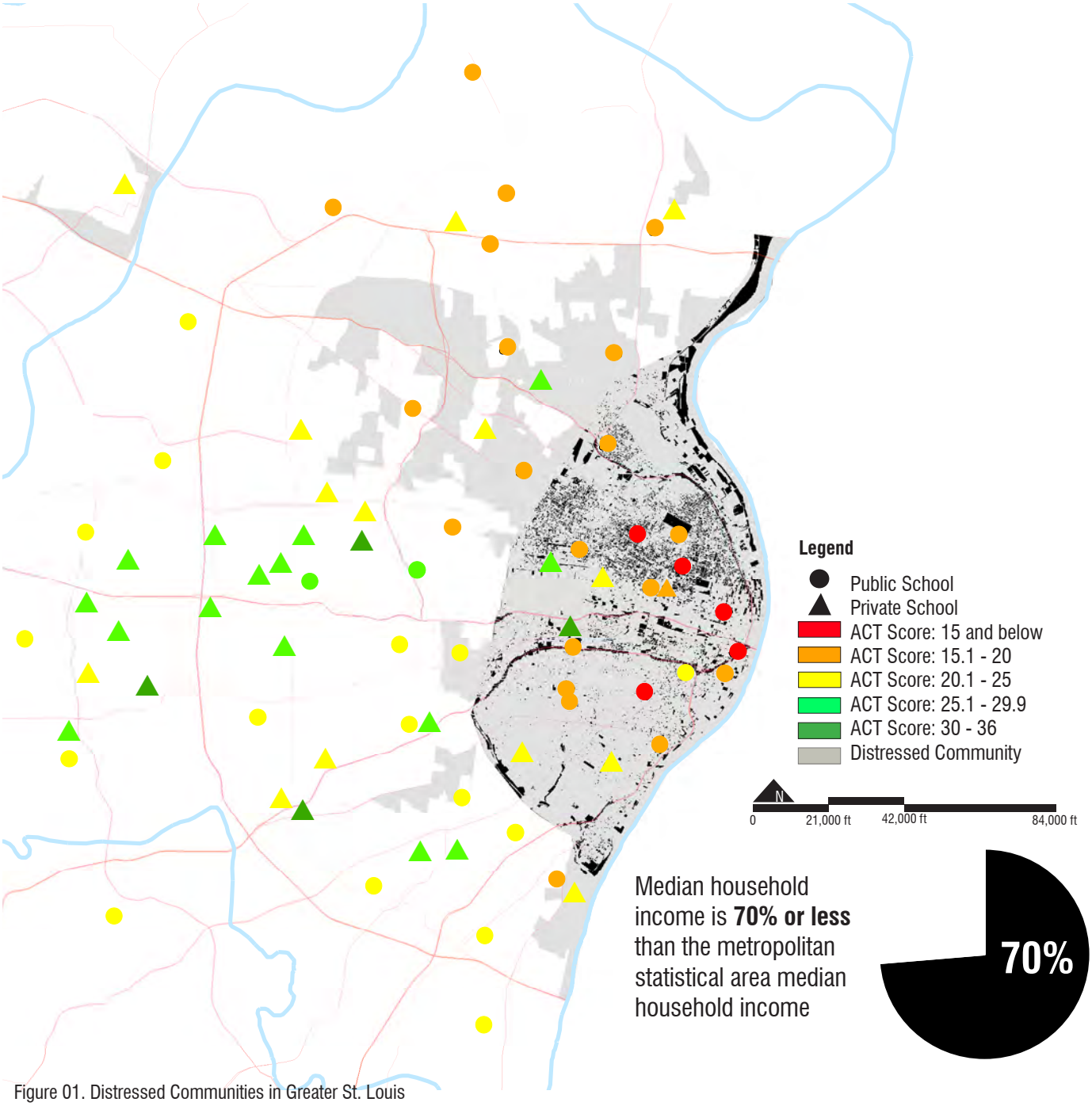


Figure 01. Distressed Communities in Greater St. Louis

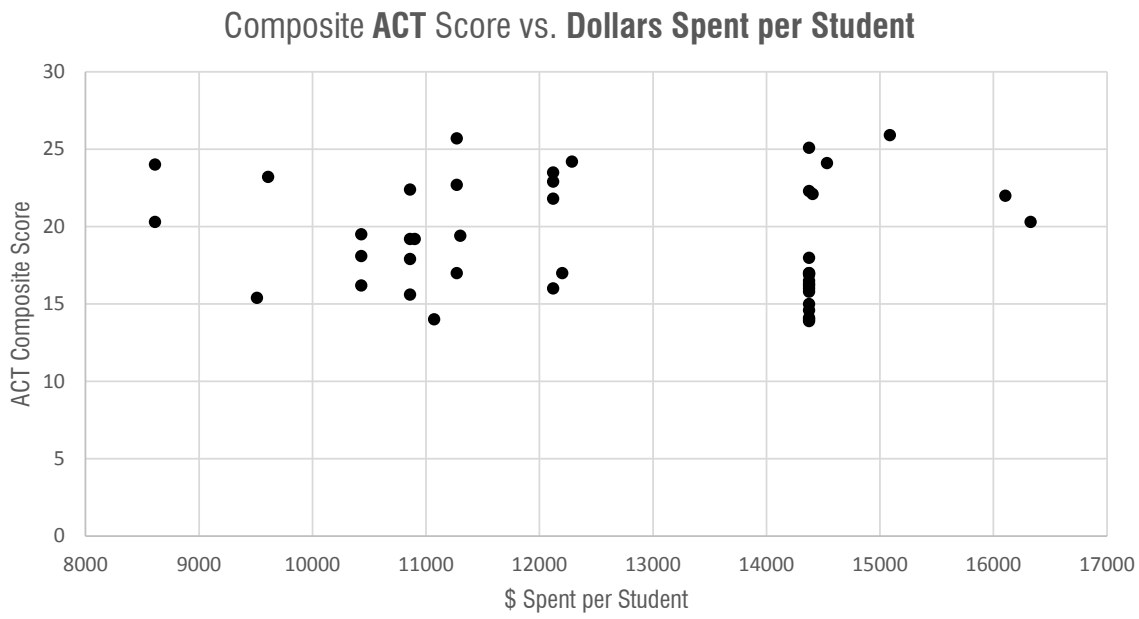
Source: Missouri Spatial Data Information Service, St. Louis Magazine, Missouri Dept. of Elementary & Secondary Education, St. Louis Public Schools

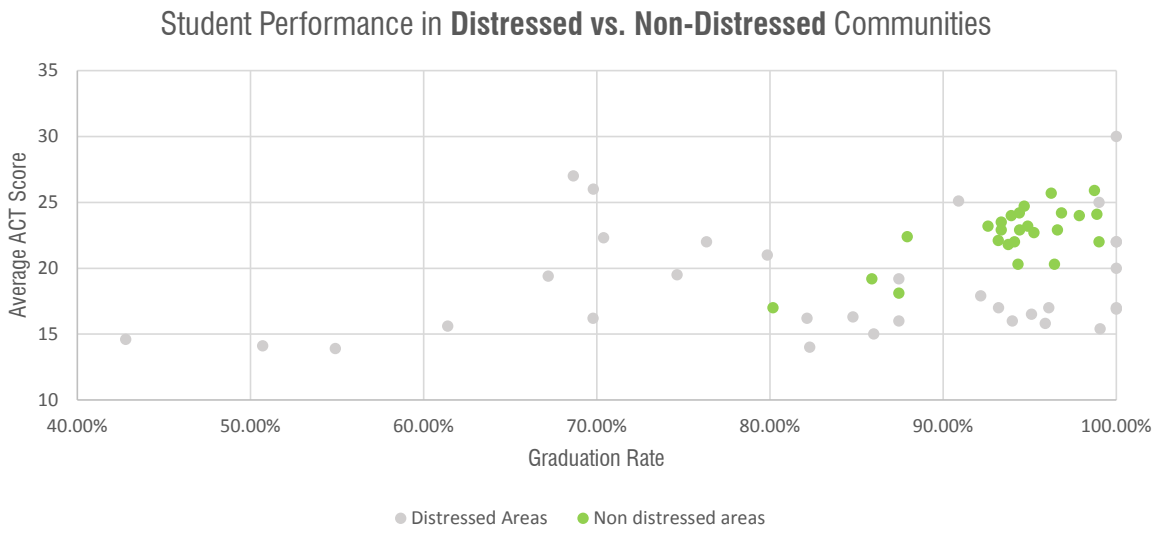
Inquiry: Why are test scores lower in the city and the northern Metro St. Louis area?

Key Extractions: Distressed neighborhoods, vacant lots, St. Louis public schools, St. Louis High Schools, Private schools, ACT scores

Methodology: Using data from Missouri Data Spatial Information Service and Revised Statuses of the Missouri Constitution, distressed communities were identified and located on a map of Greater St. Louis and layered with school locations as well as vacant parcel locations in St. Louis City.

Conclusions: Schools that are not performing well are located within what the state of Missouri categorizes as a "Distressed Community," indicated by the gray areas on the map. The entire City of St. Louis is categorized as a distressed community along with several of its suburbs in North St. Louis County. In all of the northern half of St. Louis, including St. Louis County, all schools with ACT averages of 20.1 or higher are private schools. Only one of these private schools has ACT averages above 25. This puts many of the students in North Metro St. Louis at a serious disadvantage. Private schools in these distressed communities have lower tuition rates than private schools in the rest of St. Louis, but if a family were unable to afford private education, there are very few good public options within their district. Within the St. Louis Public School District, every public school north of Delmar Blvd. has average ACT scores of 20 or below, while the majority of St. Louis County public schools have ACT scores of 20 or above.





What is a Distressed Community?

2500 residents

31 of St. Louis' schools are in a **Distressed Community**

21 of those schools are **public schools**

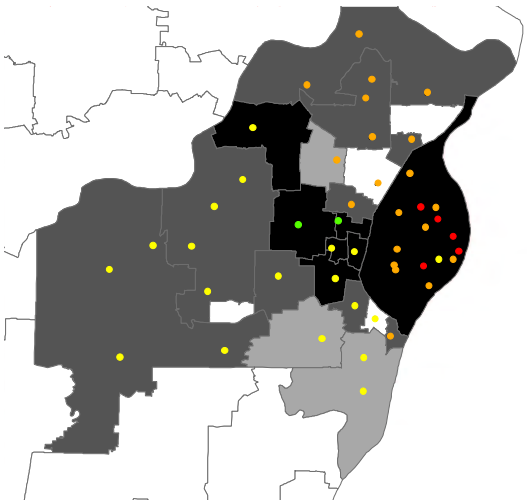


Figure 03.District spending disproportional to school performance
Darker color = more spending

High School Drop-out Rates are Higher in Certain Neighborhoods

Drop-out Rates Correlate to Neighborhoods that contain a Large Amount of Gang Members

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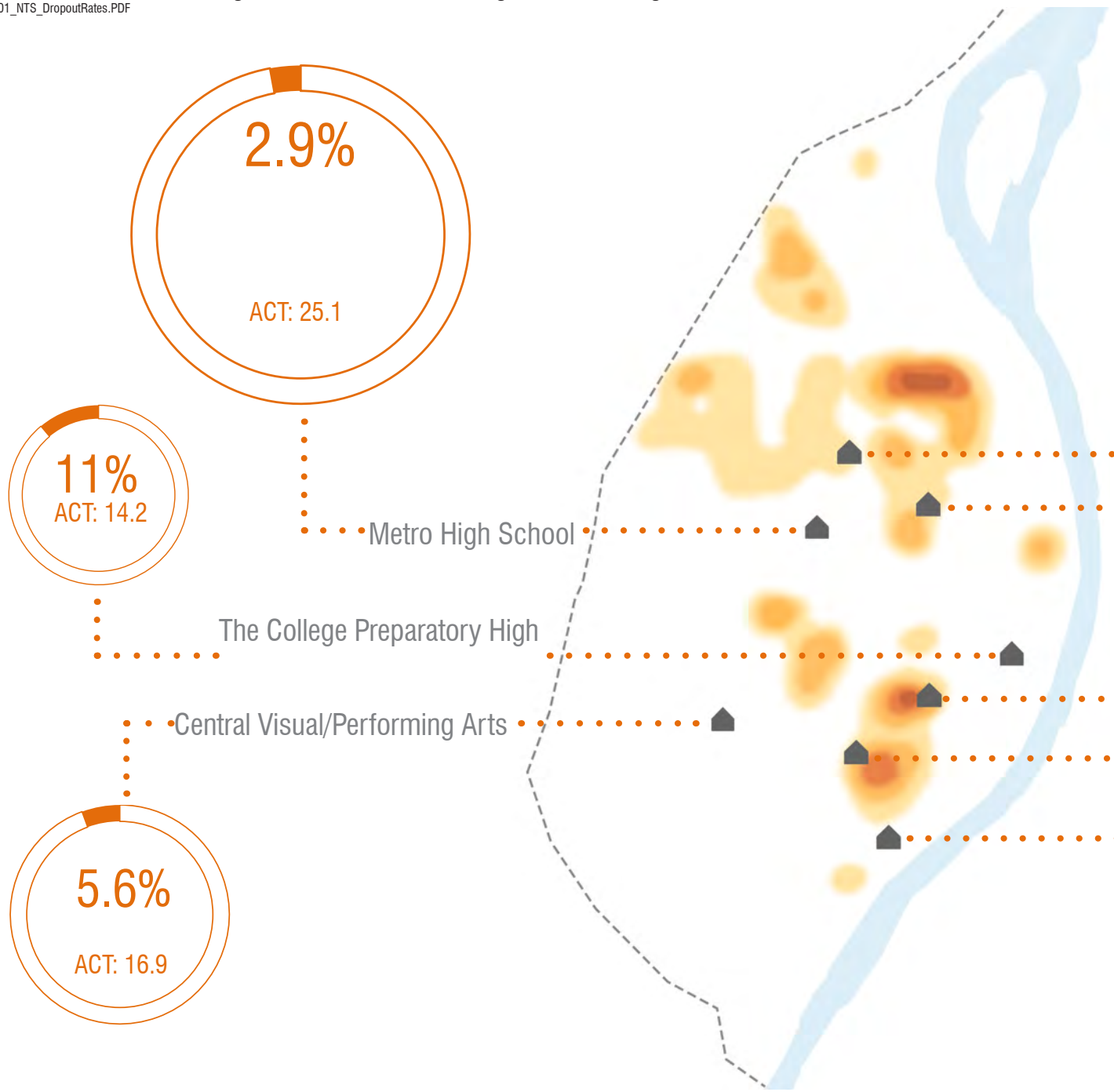
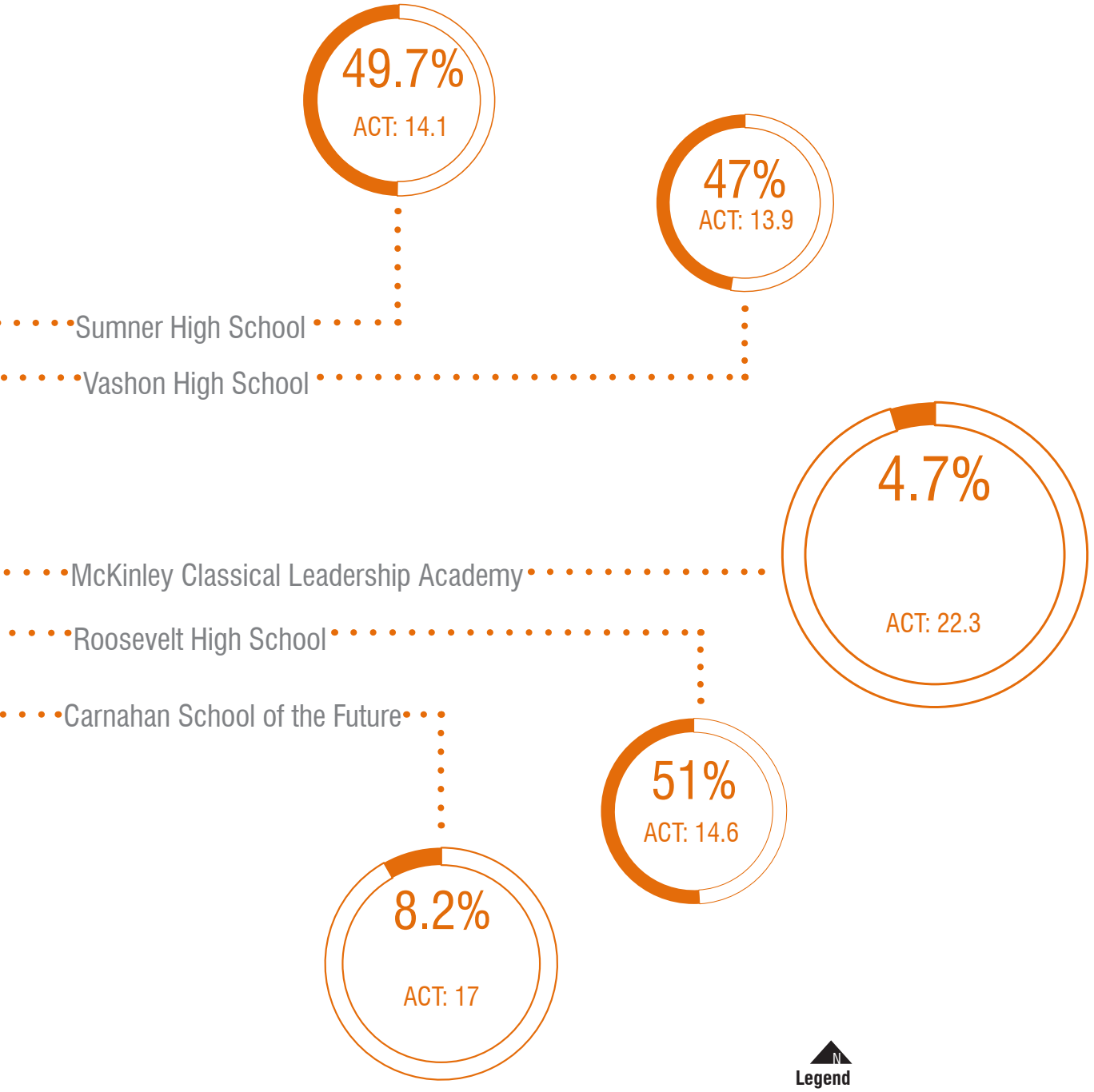


Figure 01. High school drop-out rates in relation to gang member density
Source: Gang information from University of Missouri-St. Louis and compilation of police data, Base from Arc GIS 2015

Inquiry: How does the distribution and density of gang members correlate with high school drop-out rates?
Key Extractions: 2014 Public high school drop-outs rates in the St. Louis City area, gang distribution in neighborhoods
Methodology: After assessing the locations of the four high schools with the highest drop-out rates and the four with the lowest drop-out rates, a gang member density was placed underneath. This was done to determine whether or not there was any correlation between the gang member density of a neighborhood and what neighborhood a school with low or high drop-out rates is located amongst. Drop-out rates were taken from the 2014 Building Annual Drop-out Rate Spreadsheet which was compiled by the Missouri Department of Elementary and Secondary Education Comprehensive Data System.
Conclusions: High schools with significantly higher drop-out rates are located in proximity to neighborhoods where the density of gang members is high. The high schools with the lowest drop out rates are located in neighborhoods and areas where there is either very minimal, or there are no gang members at all.


49.7%
ACT: 14.1
47%
ACT: 13.9
Sumner High School
Vashon High School
4.7%
ACT: 22.3
McKinley Classical Leadership Academy
Roosevelt High School
Carnahan School of the Future
51%
ACT: 14.6
8.2%
ACT: 17
N
Legend
50-100 gang members per sq. mile
100-150 gang members per sq. mile
150-200 gang members per sq. mile
More than 200 members per sq. mile
%
Darker color shows % of drop-outs;
size of circle reflects avg. ACT score

Vacancy Can Be Reduced by Diversity

Diversity Within St. Louis Provides Many Opportunities for the Economy

W2_EJJ03_6,666K_PromoteDiversity.PDF

Figure 01. Historical Boundaries Helped Shape Vacancy

"321 large global enterprises—companies with at least $500 million in annual revenue—surveyed in a Forbes study in 2011, 85 percent agreed or strongly agreed that diversity is crucial to fostering innovation in the workplace." Center for American Progress

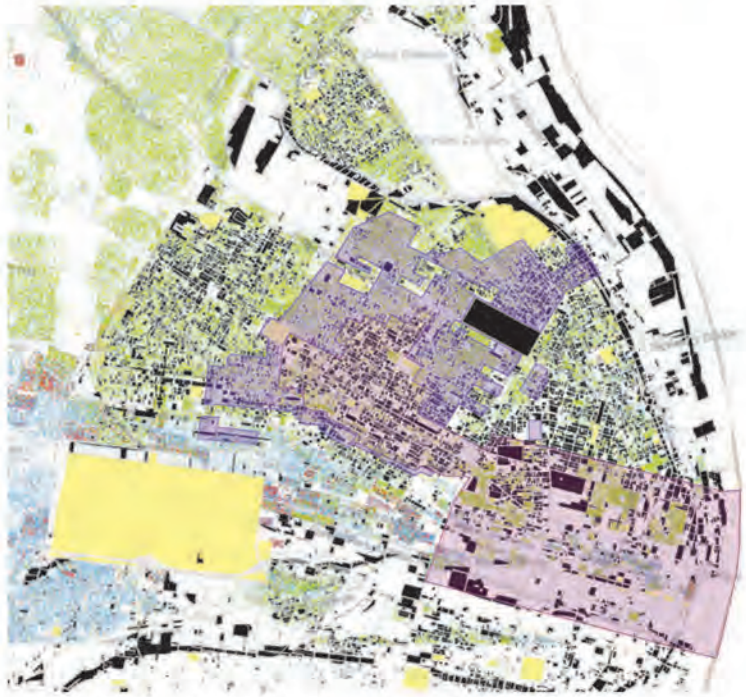
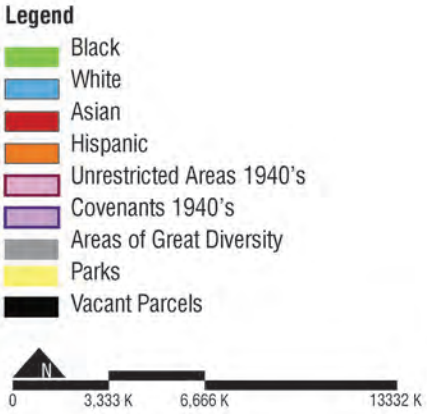


Figure 02. Historical Boundaries with current population diversity



Inquiry: What is the best area to start promoting more diverse neighborhoods?
Key Extractions: Diversity bands within the middle of the city, struggling areas in the community, and vacant parcels
Methodology: Overlay and analysis of population diversity with areas of low vacancy were compared to historical codes that hold the most vacant land.
Conclusions: The central corridor, and areas near it, are among the most ethnically diverse areas in the City and are also economically prosperous. It would make sense to expand outward from these areas to increase ethnic diversity.

Figure 03. Radiating Diversity Strategy

Sources: Demographic Center of the United States; St. Louis; Jagels, Emily. Gordon, Colin. Kerby, Sophia. and Burns, Crosby.

Historic Homes Face Extra Challenges in High Vacancy Areas

Distressed and Vacant Buildings in Historic Districts Are More Difficult to Rehabilitate

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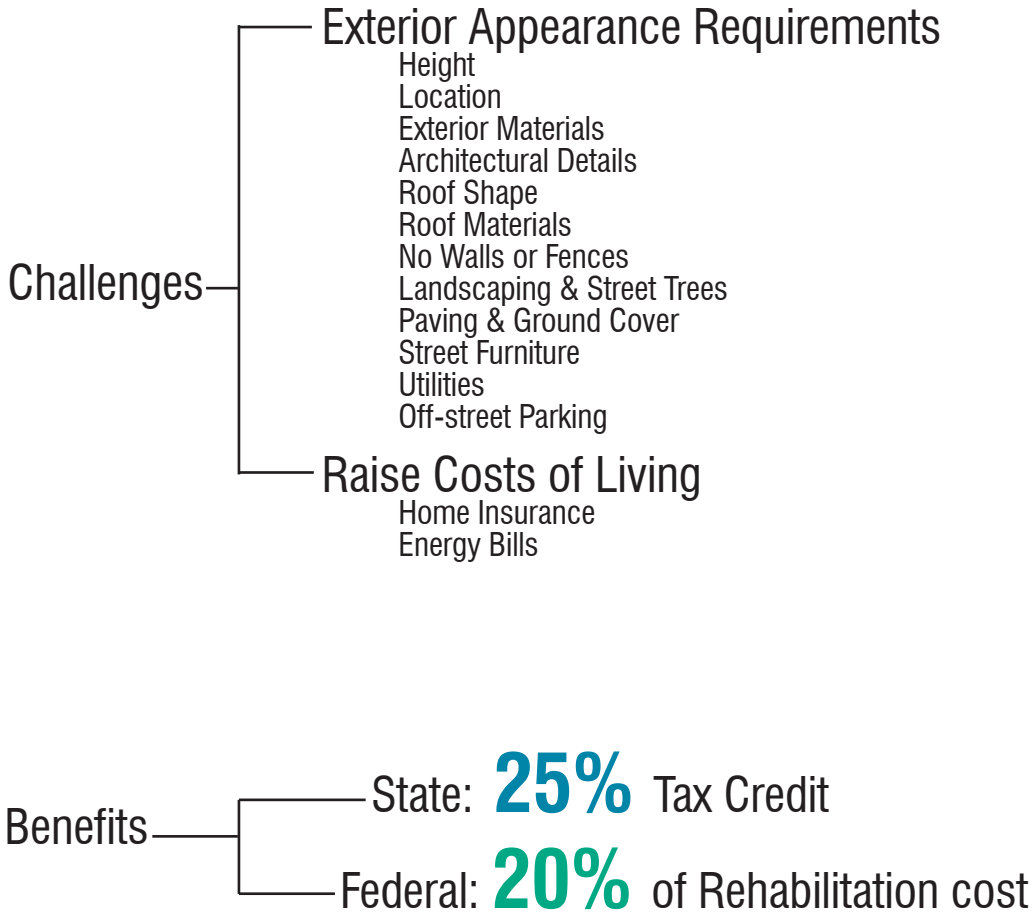
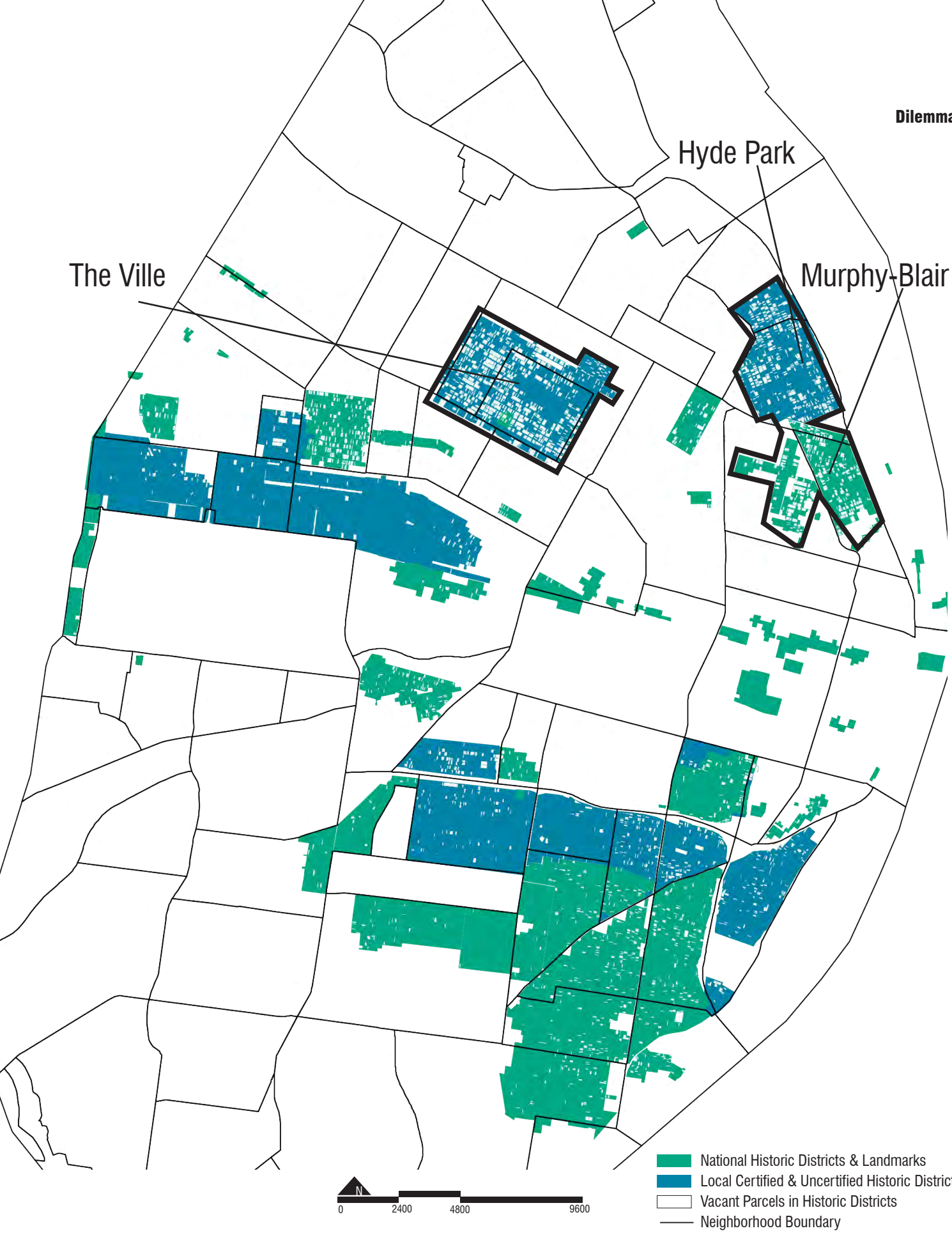


Figure 04. Historic Districts Limitations and Benefits
Source: GIS 2013, City of St. Louis Cultural Resources Office 2011, Bankrate 2008

Inquiry: What are the challenges and benefits of living in a historic district?
Key Extractions: National historic districts, local historic districts, vacant parcels, neighborhood boundaries
Methodology: Historic districts and vacant parcels within these districts were layered in GIS. Neighborhood boundaries were also added for reader orientation. Exterior appearances requirements and tax benefits were found on the St. Louis cultural resources office's website. Raise in the cost of living were found in an article on Bankrate.com. Historic districts with high vacancy were called out by name.
Conclusions: The number of vacant parcels is not significantly higher in historic districts. However, challenges for building in historic districts make it more difficult and costly to maintain, rehabilitate, and build new structures in high vacancy areas. If historic districts with high vacancy were reduced in size or taken off the register, it may be easier to build on these vacant lots.


Hyde Park
The Ville
Murphy-Blair
N
0
2400
4800
9600
National Historic Districts & Landmarks
Local Certified & Uncertified Historic Districts
Vacant Parcels in Historic Districts
Neighborhood Boundary

Vacant Historic Buildings in North St. Louis are Less Valuable Than Those in the South

Market values of vacant historic buildings in tend to be highest in the center of the city

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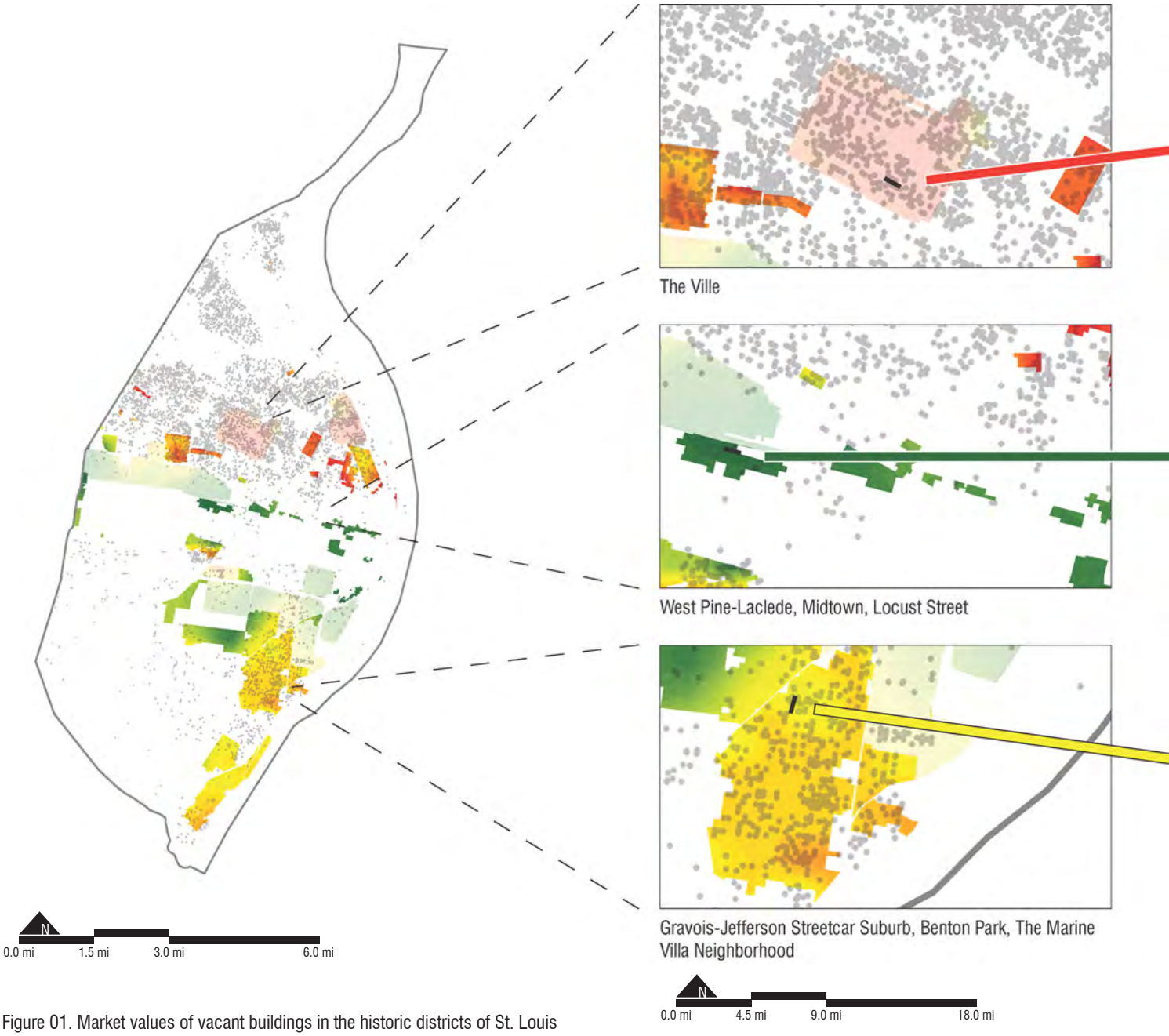
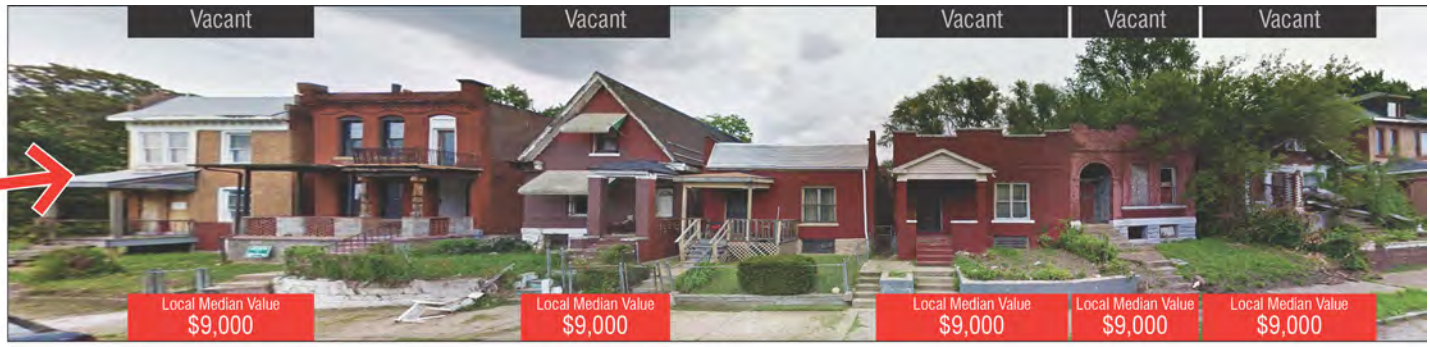


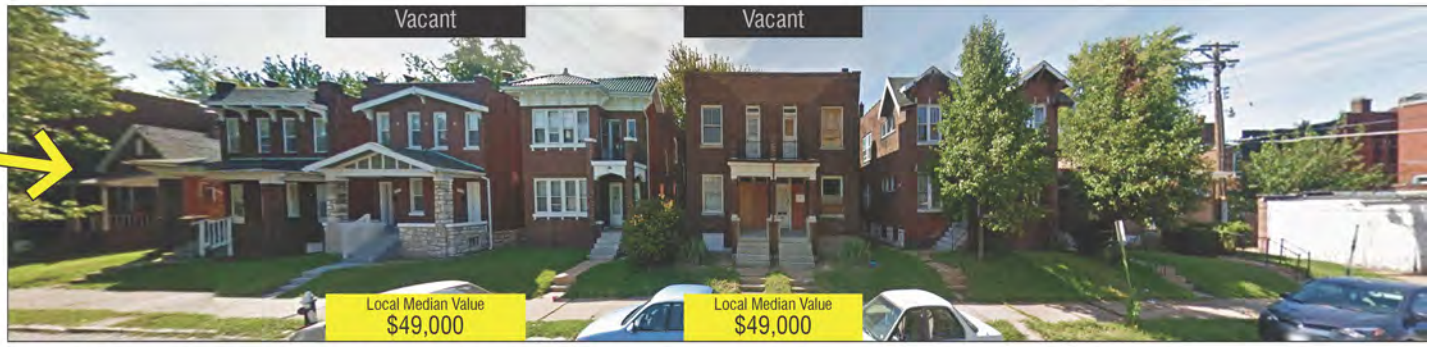
Figure 01. Market values of vacant buildings in the historic districts of St. Louis
Source: City of St. Louis 2014-2015

Inquiry: Is there a trend in market values among vacant buildings in the historic districts of St. Louis?
Key Extractions: Market Value Analysis, vacant buildings, historic districts, city boundary
Methodology: Vacant building and residential Market Value Analysis data was obtained from the City of St. Louis. The "kriging" tool in ArcGIS was used to generate a heat map based on the market values for each parcel with a vacant building on it. This heat map was cropped to the extents of historic districts within the city, and the city's boundary and point locations of vacant buildings within it were superimposed on the heat map. Finally, images of vacant buildings were obtained from Google Maps Street View. Market values were estimated for vacant buildings based on median prices given in the City's Market Value Analysis map. (Note: Market value data is limited to residential buildings and does not include other building types.)
Conclusions: The highest market value among vacant buildings within historic districts occurs within the middle latitudes of the city. Vacant buildings in southern historic districts have a market value slightly below the city's median and those in northern historic districts. Also, higher concentrations of vacant buildings appear to indicate lower market values. There appears to be no correlation between the market value of vacant buildings in nationally recognized historic districts versus the market value of those in locally recognized historic districts.



Cote Brilliante Avenue between Billups Avenue and Annie Malone Drive, facing north

West Pine Boulevard between North Newstead Avenue and North Boyle Avenue, facing north



Minnesota Avenue between Wyoming Street and Utah Street, facing west

Figure 02. Samples of vacant buildings within historic districts
Source: City of St. Louis 2014-2015, Google Maps 2014

Legend

- Vacant buildings

Market value

National Register of Historic Places sites

Local historic sites

Historic site classification

Employment Class, Locations Differ by Income and Area of Residence

North St. Louis low-income residents more likely to travel outside area for work

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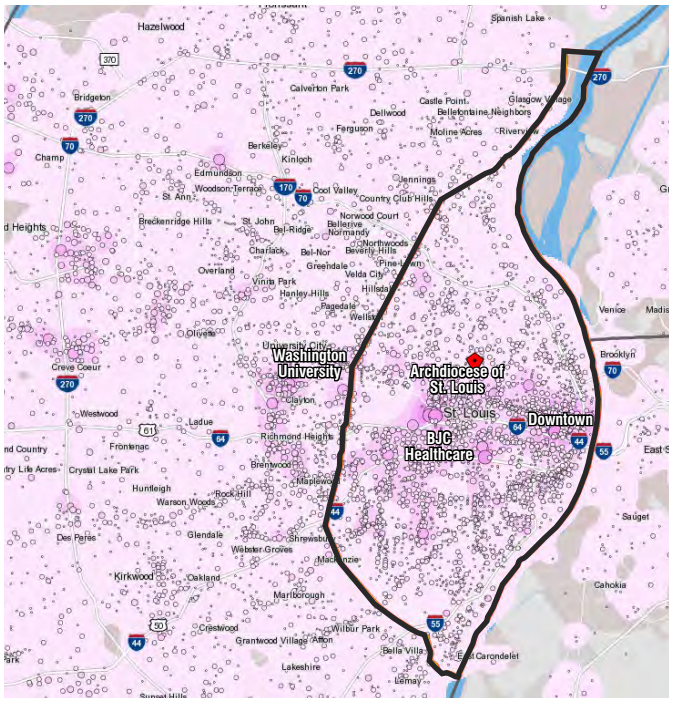
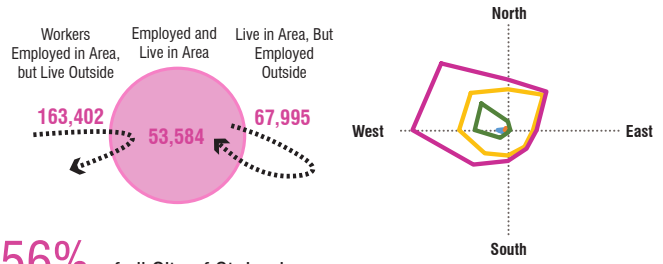
St. Louis | All Workers

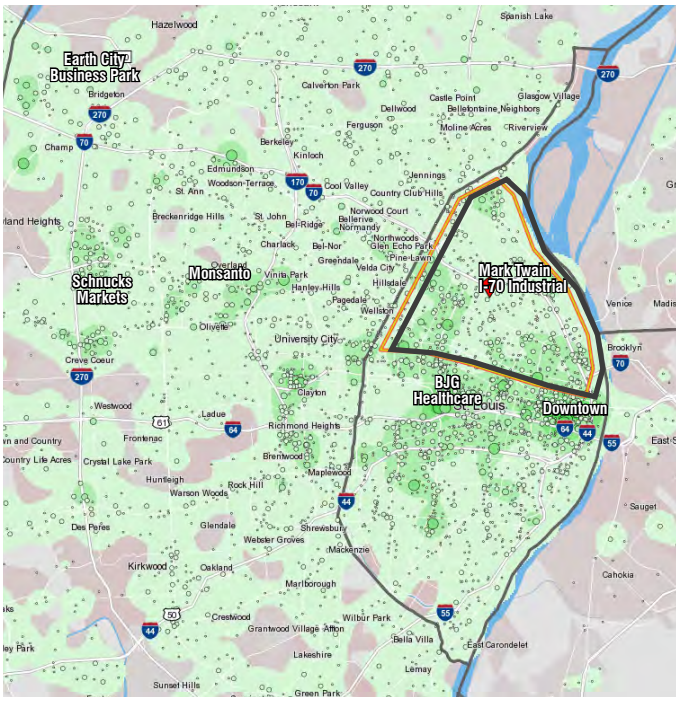


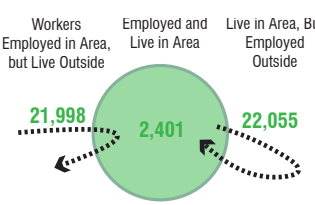


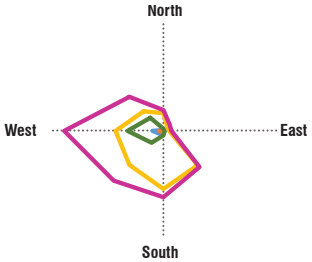
56% of all City of St. Louis workers leave the city for employment.

	121,579 total	100%
Less than 10 miles	84,645	69.6%
10 to 24 miles	28,053	23.1%
25 to 50 miles	2,278	1.9%
Greater than 50 miles	6,603	5.4%

North St. Louis | All Workers







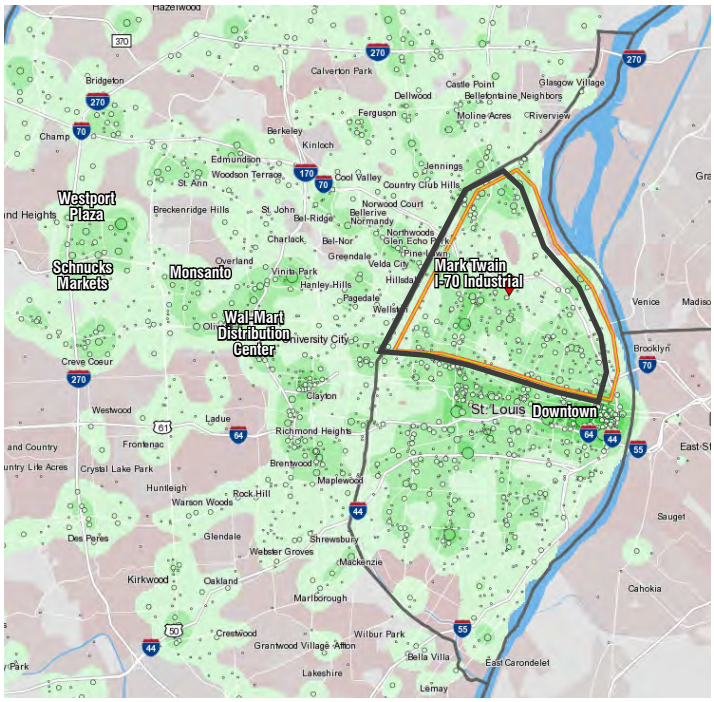
90% of North St. Louis workers leave the area for employment.

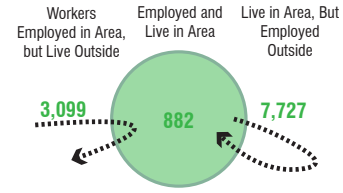
	24,456 total	100%
Less than 10 miles	16,988	69.5%
10 to 24 miles	5,385	22.0%
25 to 50 miles	472	1.9%
Greater than 50 miles	1,611	6.6%

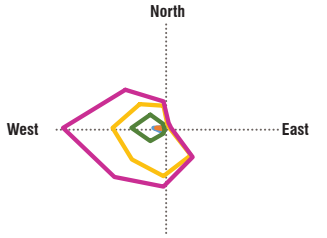
Figure 01. Job Origin-Destination Differs by Home Location and Income
Source: U.S. Census LODES (2011), Google Maps (2015), St. Louis Regional Chamber (2015)

Inquiry: In what ways does employment locations and commutes to work differ across the City of St. Louis?
Key Extractions: Origin/Destination of Workers, Heat Map of High Concentration, Dot Density of High Concentration, Top Employers in High Concentration Areas
Methodology: Maps were created using Longitudinal Origin-Destination Employment Statistics (LODES) from the Longitudinal Employer-Household Dynamics dataset from the U.S. Census Bureau (2011). “Primary jobs” were selected for analysis. All Workers and Workers Earning $1,250 Or Less were highlighted for analysis. Business location were cross-referenced with Google Maps, Census tract data from LODES and the St. Louis Regional Chamber, which cited the top employers in the region.
Conclusions: St. Louis workers in the north portion of the city are more likely to commute west of the city limits to work instead of staying in North St. Louis to work. Workers in that area display a higher spread of employment locations compared to the population of workers in the City as a whole. The population of workers across the entire city is concentrated more closely downtown. Few workers living in North St. Louis also work in North St. Louis. This could be explained by several factors including the percent of land which is vacant and/or the overall residential nature of the area. There is a more even split of workers staying and working in their area of residence in the CIty as a whole compared to residents living in North St. Louis. The Mississippi River is a barrier for employment, and workers across all three groups tend to work in the City of St. Louis or west of the city.

North St. Louis | Workers Earning $1,250 or less per month







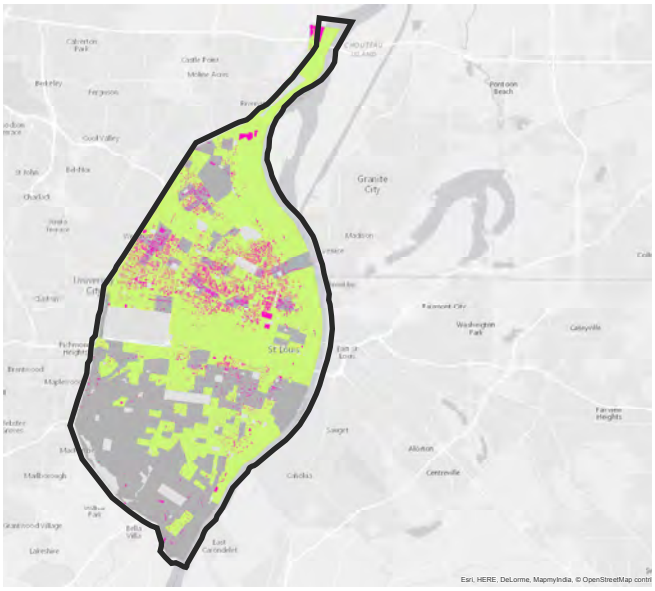
90% of low-income North St. Louis workers leave the area for employment.

	8,609 total	100%
Less than 10 miles	5,883	68.3%
10 to 24 miles	1,937	22.5%
25 to 50 miles	253	2.9%
Greater than 50 miles	536	6.2%

Study Area
Lowest Density of Employment
Highest Density of Employment

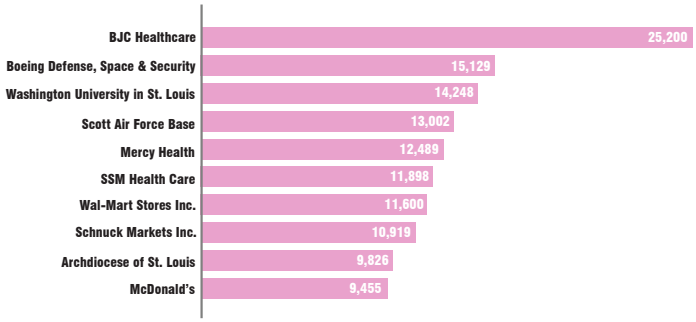
Study Area
Lowest Density of Employment
Highest Density of Employment

Percent of Commuters Using Public Transportation



Study Area
Parks
Vacant Parcels
15% or Less Public Transportation Use
> 15% Public Transportation Use

Top 10 St. Louis metro area employers



2 top 10 employers are located in the City of St. Louis

3 top 10 employers are health care-related

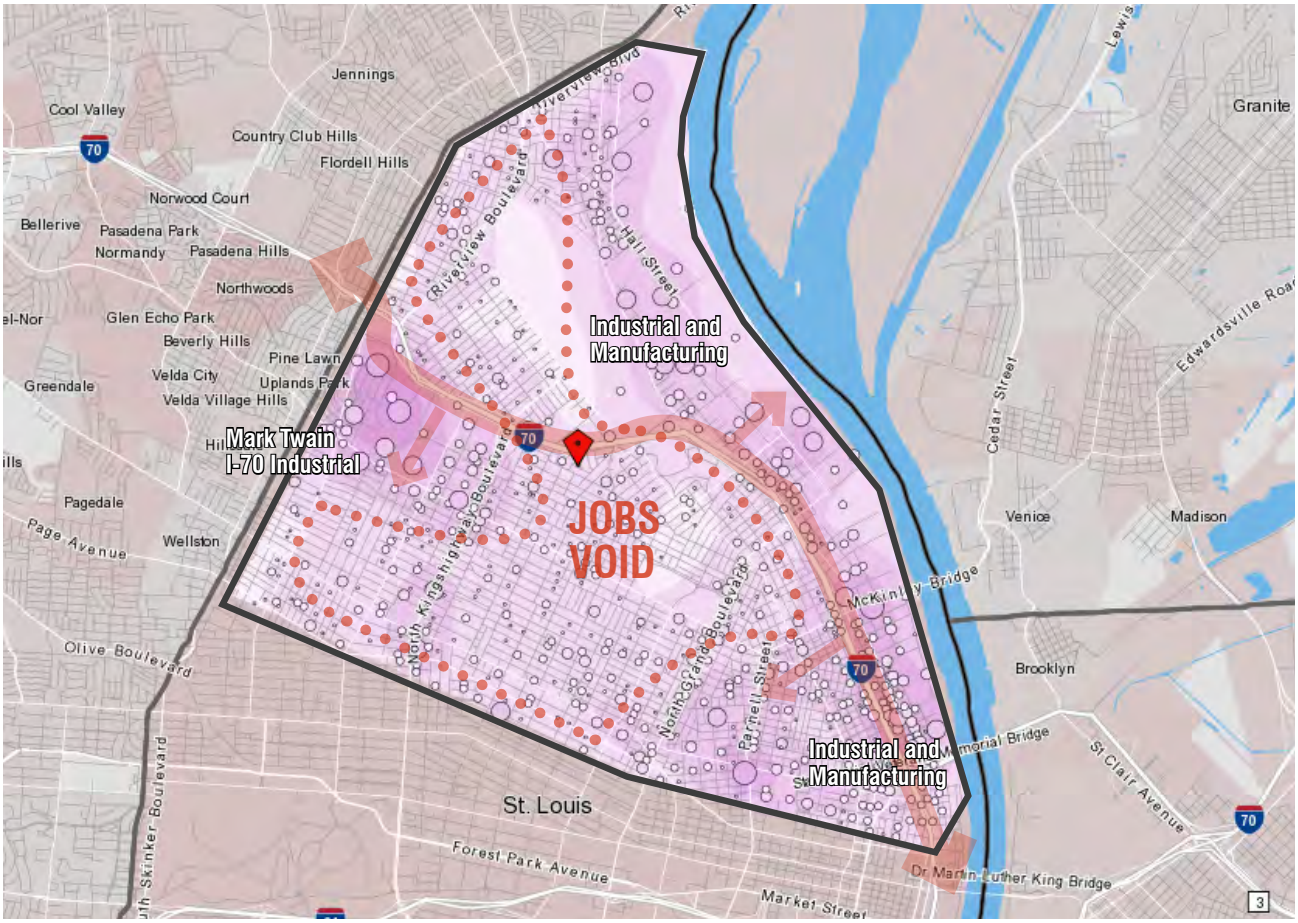
1 top 10 employer is located across the metro area: McDonald's

North St. Louis Lacks Diversity of Job Opportunities

Interstate best predictor for job locations in area

W2_JEK01_4K_Employment.PDF

North St. Louis Area Employment Opportunities



Profile of Workers Living in North St. Louis

82% make $3,333 per month or less

Top Industries

22% Healthcare and Social Assistance

12% Administration & Support, Waste Management and Remediation

12% Accommodations and Food Service

Profile of People Working in North St. Louis

52% make $3,333 per month or less

Top Industries

25% Manufacturing

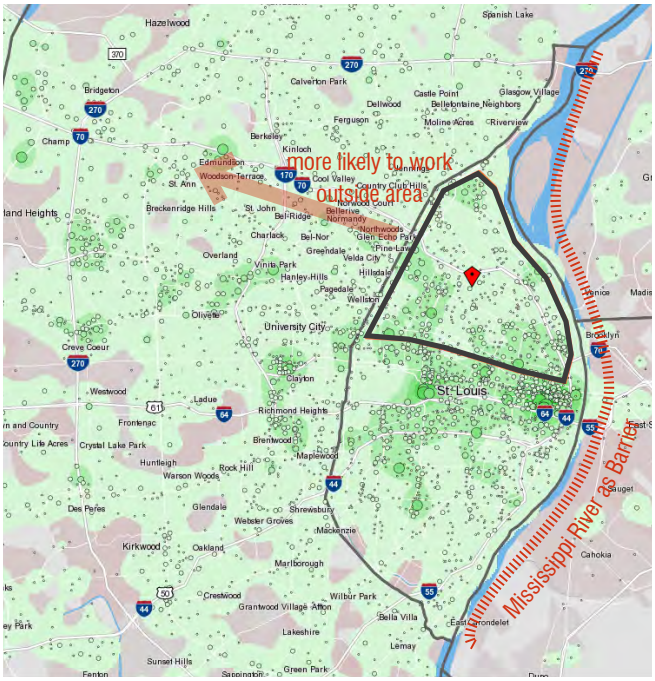
17% Transportation and Warehousing

12% Healthcare and Social Assistance

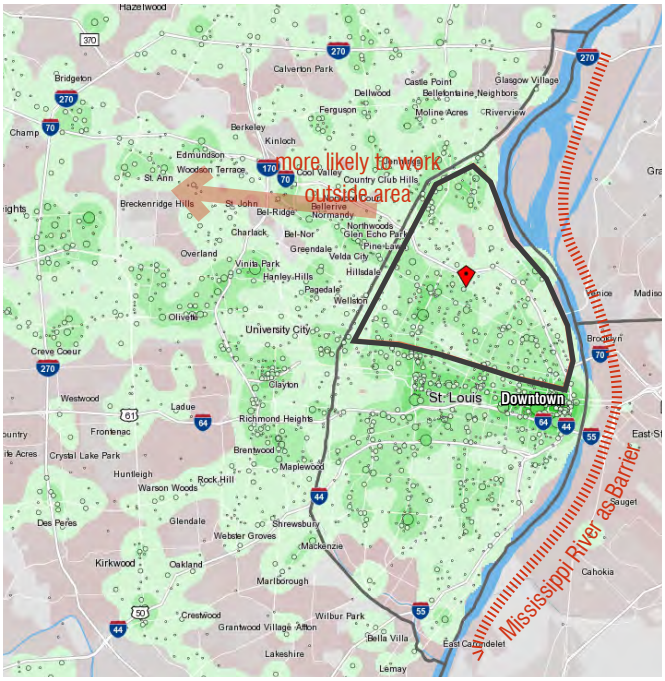
Figure 01. North St. Louis lacks high-quality job opportunities
Source: U.S. Census LODES (2011), Google Maps (2015), St. Louis Regional Chamber (2015)

Inquiry: Based on the previous analysis, what conclusions can be made about industry and employment in North St. Louis?
Key Extractions: Origin/Destination of Workers, Heat Map of High Concentration, Top Employers in High Concentration Areas
Methodology: Maps were created using Longitudinal Origin-Destination Employment Statistics (LODES) from the Longitudinal Employer-Household Dynamics dataset from the U.S. Census Bureau (2011). "Primary jobs" were selected for analysis. Business location were cross-referenced with Google Maps and Census tract data from LODES.
Conclusions: North St. Louis industry is focused on lower-skill jobs on the periphery of the area. The organizations employing North St. Louis workers are largely industrial/manufacturing in nature, as opposed to the health and university organizations prevalent in the city. There is a strong correlation between the interstate highways and job locations. A large void of low employment opportunities exists in the core of the North St. Louis district.

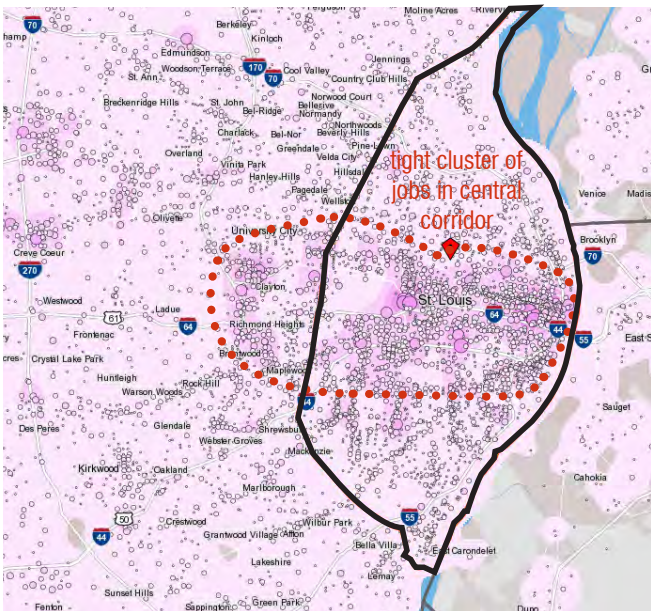
North St. Louis | All Workers



North St. Louis | Workers Earning $1,250 or less per month



North St. Louis | All Workers



Study Area
Lowest Density of Employment
Highest Density of Employment

Study Area
Lowest Density of Employment
Highest Density of Employment

0 1 mi 2 mi 4 mi

0 2 mi 4 mi 8 mi

Areas with High Unemployment Have High Vacancy

Neighborhoods with High Unemployment Averages also Have Areas of Unoccupied Land

W2_KDS01_80K_VacancyandUnemployment.PDF

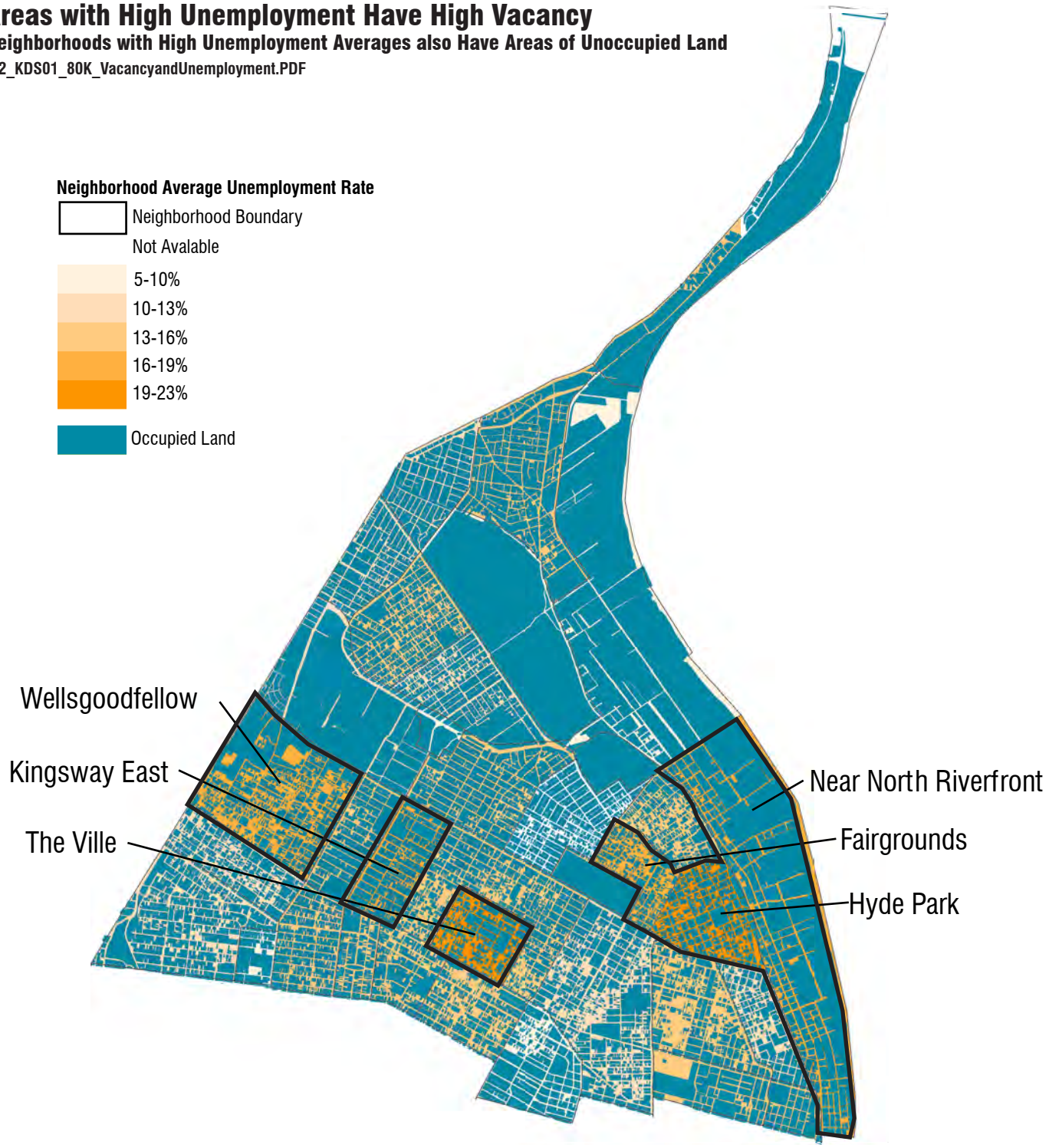
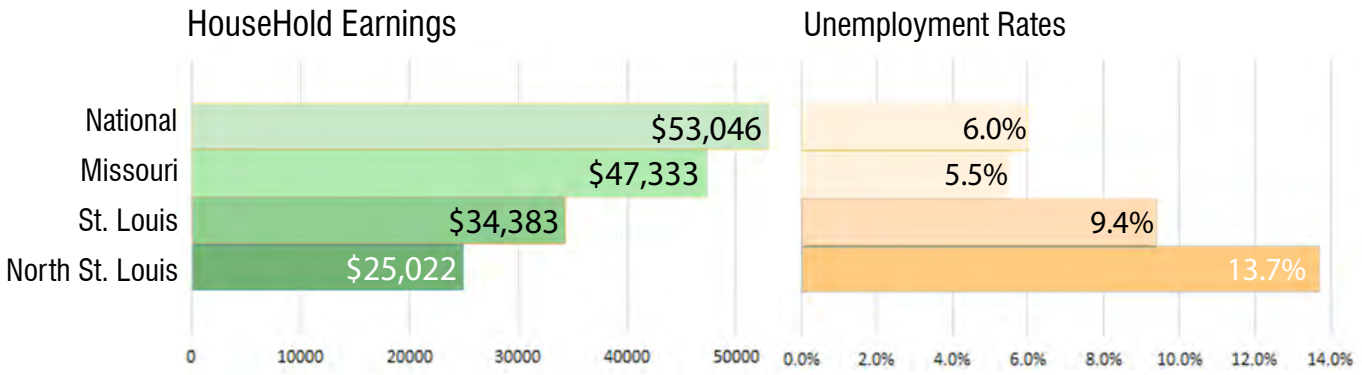


Figure 01. Unemployment rate in relation to vacant land in north St. Louis
Source: City of St. LouisGIS 2013, Area Vibes 2010

Inquiry: How is unemployment rate impacted by vacany?
Key Extractions: Occupied Parcels, Neighborhood Boundaries, Unemployment Rates
Methodology: Vacant parcel and neighborhood boundary information from GIS was layered over average unemployment rates per neighborhood found on areavibes.com. Neighborhoods with high unemployment are called out by name on the map.
Conclusions: Neighborhoods with more than 16% unemployment (dark orange) seem to be only covered by about 50% occupied land (blue). Although vacancy land doesn't always have high unemployment, areas of high unemployment have a lot of vacant land.


HouseHold Earnings
National
Missouri
St. Louis
North St. Louis
$53,046
$47,333
$34,383
$25,022
0
10000
20000
30000
40000
50000
Unemployment Rates
6.0%
5.5%
9.4%
13.7%
0.0%
2.0%
4.0%
6.0%
8.0%
10.0%
12.0%
14.0%


Occupied Land


Unemployment
Distribution


N
0
3350
6700
13400

People Without Transportation Have Fewer Healthy Food Choices

Many residents are not within a 30 minute walk of a grocery store

W2_KDR01_1"=1 mile_GroceryStoresVsNeighbhorhoodMarkets.PDF

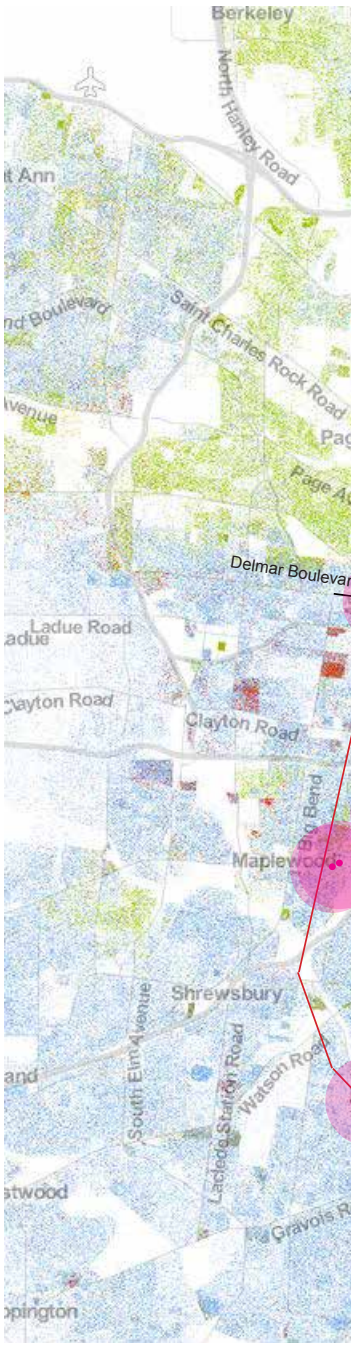


Figure 01. Grocery Store Locations
Source: Cable, Dustin. July 2013. "The Racial Dot Map." Accessed June 3, 2015. http://demographics.coopercenter.org/DotMap/index.html

Inquiry: Are grocery stores that provide fresh food accessible to all residents of St. Louis?

Key Extractions: Grocery, Food Desert, Travel Distance, Population, Racial Distribution

Methodology: I located grocery stores that provide fresh foods in St. Louis City boundaries using Google Maps along with further investigation into each one, proving that some were still marked on the map, but were no longer in use- leading me to omit those from the maps above. I then delineated areas within a 1/2 mile and 1 mile radius of grocery stores to see how many people were left out of those areas. Layering the grocery stores onto a population density basemap allows conclusions to be made. On the second map, neighborhood markets were located in the same way as grocery stores were. With neighborhood markets, only 1/2 mile radius' were shown, since those were located more densely than grocery stores.

Conclusions: Conclusions drawn from the map are that many people in St. Louis City live in a "food desert" since they live outside of the 1 mile zones of grocery store locations- meaning they would have more than a 30 minute walk. However, smaller neighborhood markets were accessible to more of the population of St. Louis City, but do not provide as much selection or fresh food choices. Another observation is that the amount and distance to grocery stores and neighborhood markets appear to be about the same between north and south St. Louis.

Figure 02. Neighborhood Market Locations
Source: Cable, Dustin. July 2013. "The Racial Dot Map." Accessed June 3, 2015. http://demographics.coopercenter.org/DotMap/index.html

NOTE: Stores were located through Google Maps and some locations might not be included. Also, no field verification was undertaken.

The average grocery store size is **46,500** sq. ft.

Figure 03. Grocery Store With Health Food
Source: Google Maps. August 2011. "Google Map, St. Louis, MO." Accessed June 3, 2015.

The average neighborhood market size is **1,660** sq. ft.

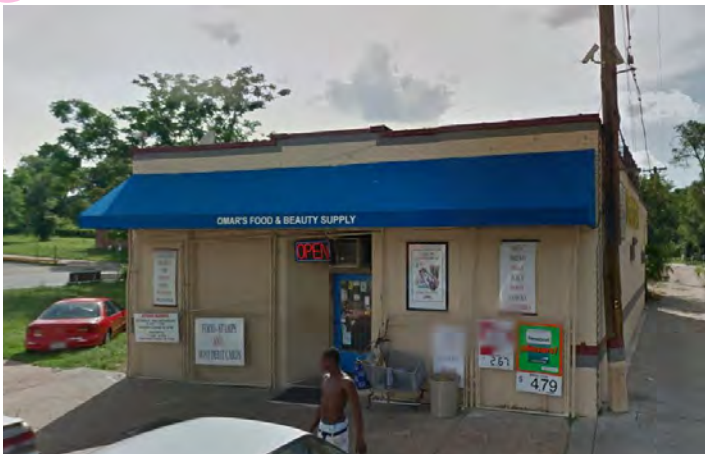


Figure 04. Neighborhood Market
Source: Google Maps. June 2013. "Google Map, St. Louis, MO." Accessed June 3, 2015.

Market area statistics found: Food Marketing Institute. 2015. "FMI: Supermarket Facts." Accessed June 4, 2015. http://www.fmi.org/research-resources/supermarket-facts

Legend

- Grocery Store
- 1/2 Mile Radius from Grocery Store
- 1 Mile Radius from Grocery Store
- Neighborhood Market/Convenience Store
- 1/2 Mile Radius from Grocery Store
- White People (1 dot=1 person)
- Black People (1 dot=1 person)

NOT TO SCALE

Health Desert in High-Risk North St. Louis

Healthy lifestyle options restricted to healthier southern neighborhoods in St. Louis

W3_SMJ02_250K_HealthComposite.PDF

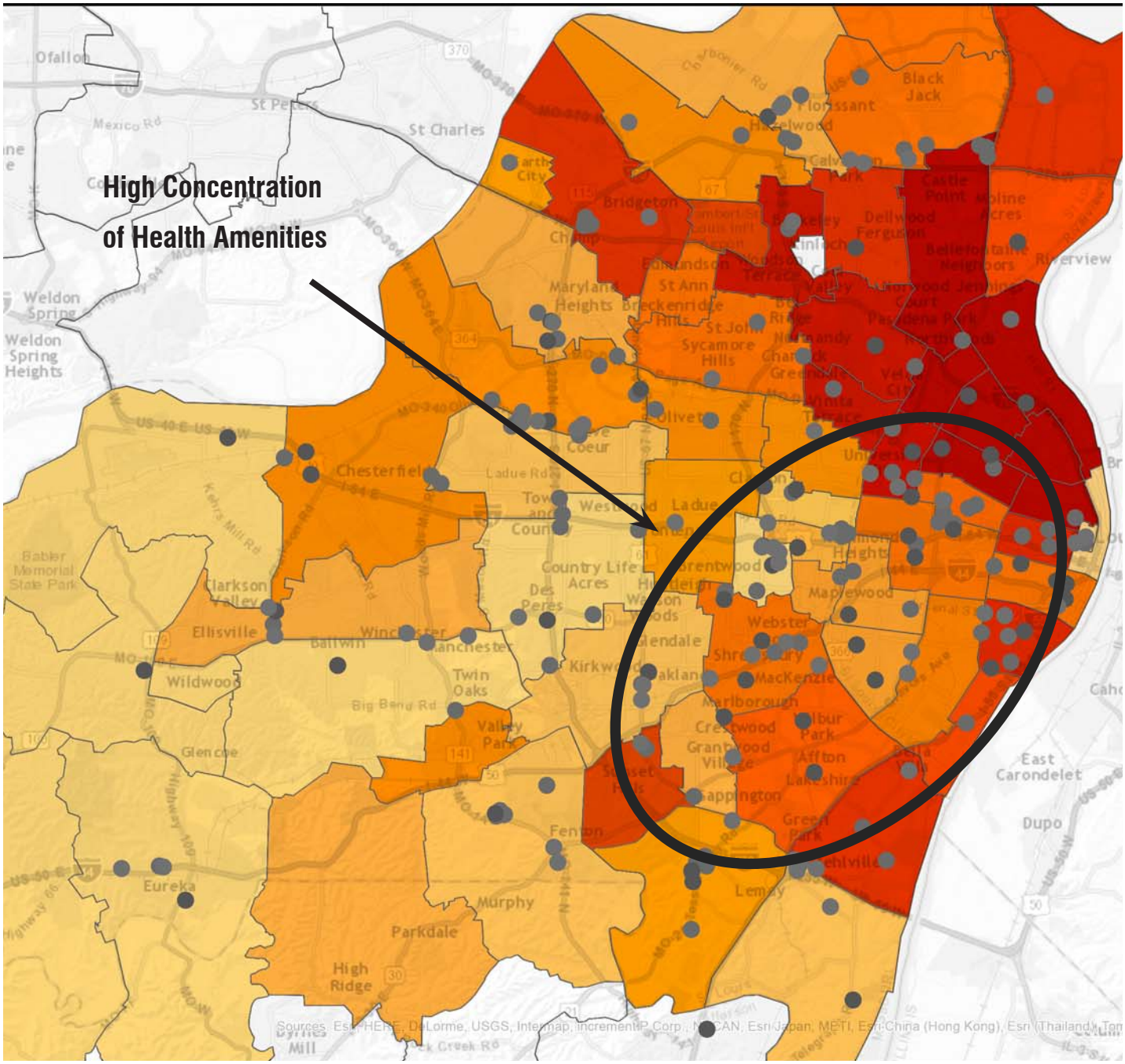
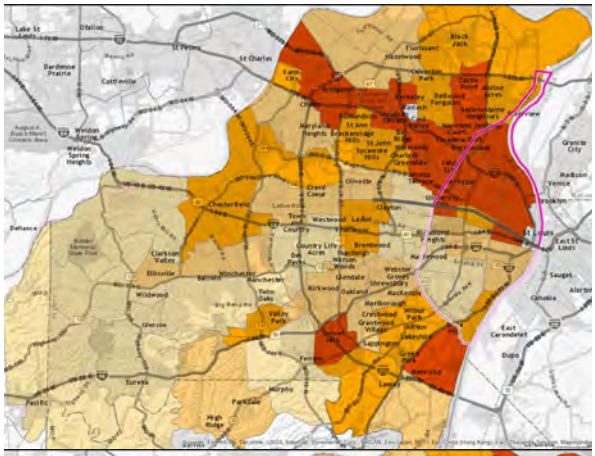
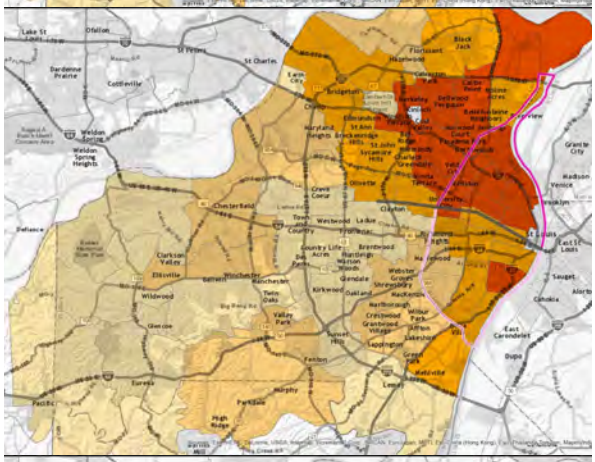


Figure 02. Hospitalizations, Obesity, and Composite Health
Source: 2015 City of St. Louis Obesity Report & 2012 Decade Review of Health Status for City of St. Louis and County 2000-2010
Inquiry: Is there a relationship between the location of health amenities and the health of residents in north St. Louis?
Key Extractions: neighborhood health, hospitals, gyms, health food stores, heart disease, obesity, diabetes
Methodology: Collect data on number of hospitalizations in zip code locations due to heart disease and diabetes. Collect percentages of overweight and obesity in zip code areas. Overlay all three and create a gradient of health risk, and then overlay locations of health amenities. The thresholds for High, Elevated, Medium, and Low were assigned to correlate to the data found in 2012 Decade Review of Health Status for City of St. Louis and County 2000-2010.
Conclusions: High-risk health areas are located in the north St. Louis City and county, and generally health amenities are scarce in these locations. The majority of health amenities are clustered in south and central St. Louis city, where there is a much lower reported health risk.



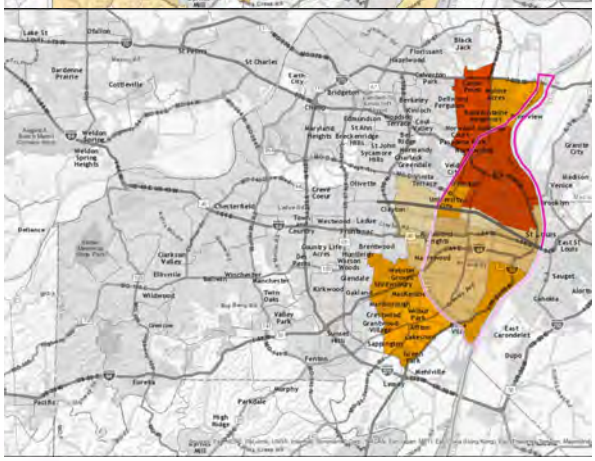
Hospitalization Rate of Heart Disease

- No Data
- High: 1 (Greater than or equal to 181 per 10K)
- Elevated: 2
- Medium: 3
- Low: 4 (Less than or equal to 135 per 10K)



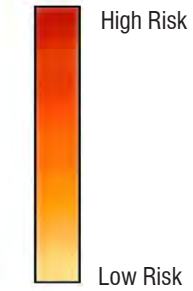
Hospitalization Rate of Diabetes

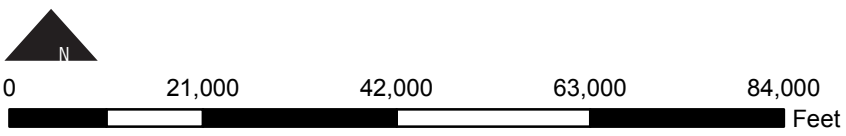
- No Data
- High: 1 (Greater than or equal to 34.1 per 10K)
- Elevated: 2
- Medium: 3
- Low: 4 (Less than or equal to 10.9 per 10K)



Obesity as Reported on DMV Records

- No Data
- 67.4% - 76.0%
- 60.4% - 63.8%
- 54.4% - 59.0%
- 31.7% - 51.3%





1 inch = 20,833 feet

1:250,000

High Rates of Obesity Correlates with Struggling Areas

Obesity compared to homicides, low income, trails, and food deserts

W3_LV01_4K_OBESITYCORRELATION.PDF

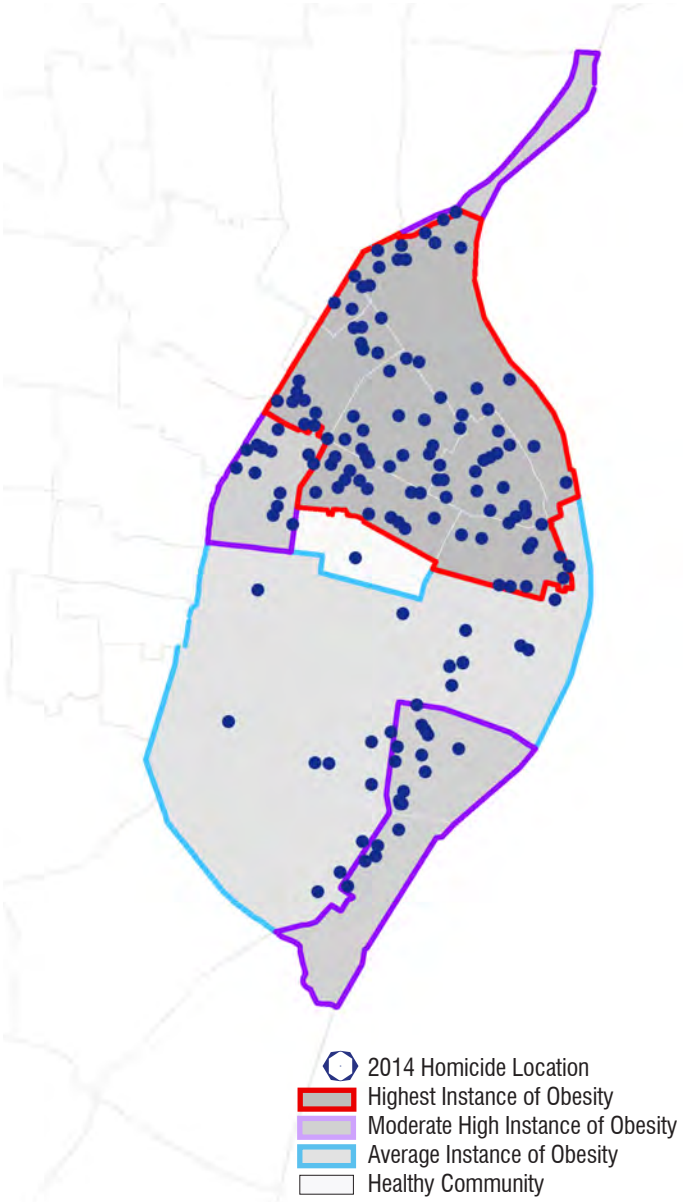


Figure 01. Areas with high instance of obesity also have high instance of homicides. Indicating potential safety concerns
Source: ArcGIS, The City of St. Louis Department of Health, STL Today

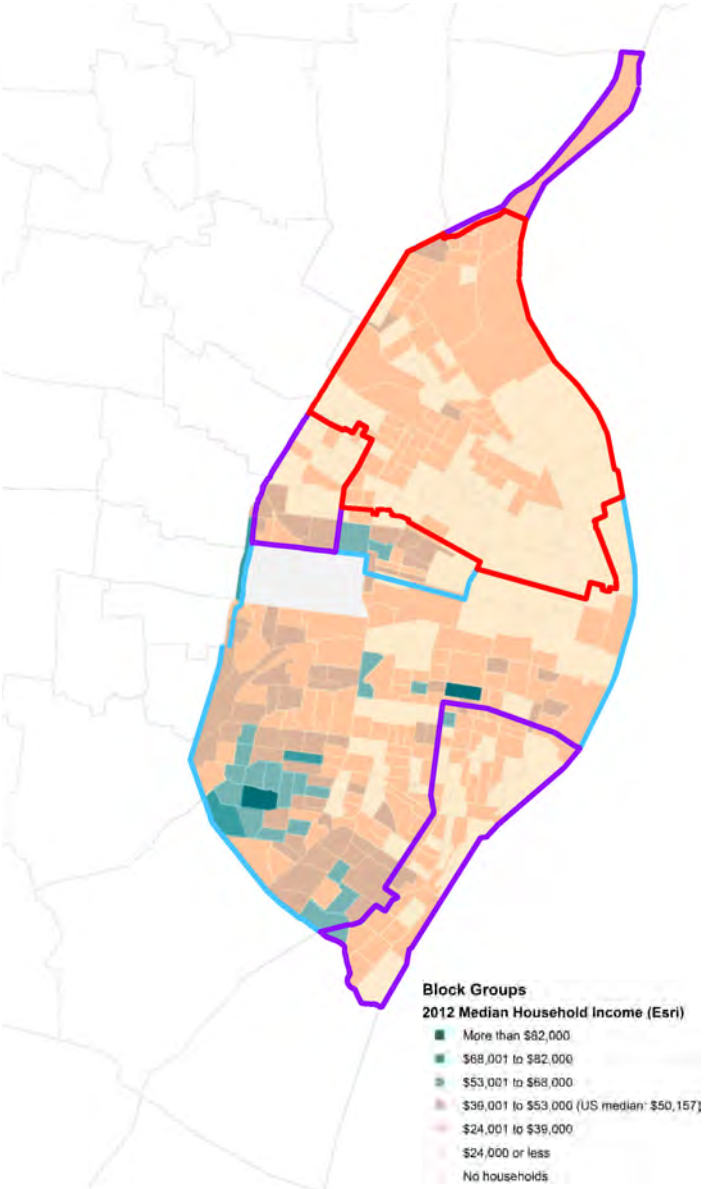


Figure 02. Correlation between obesity and income. Areas with low income tend to be more obese. Refer to figures 4.5-4.8
Source: ArcGIS, The City of St. Louis Department of Health

Inquiry: What factors correlate with obesity in St. Louis?
Key Extractions: Crime, safety, obesity, income, trails, food dessert
Methodology: This map was made by analyzing data from The City of St. Louis Department of Health's data on obesity. Classmate Sarah Jackman then transferred this data by county into ArcGIS. First, homicide data mapped in Google Earth provided by STL today was overlaid in photoshop. Each placemark was then mapped by a purple dot. Next, income, bike trails, and food desert data was provided by ArcGIS, and compared with the obesity map.
Conclusions: In general, struggling areas tend to correlate with obesity. Areas with higher instances of poverty have less access to healthy food and are more likely to sit within a food desert. Both these qualities directly correlate with obesity. Though figure 4.3 mapping bike routes does not show any correlations, biking and obesity are directly correlated. This is probably due to poor conditions and lack of maintenance on these bike paths. Figures 4.5 to 4.8 show some of the conditions of these paths. Additionally, many people in these areas may not feel safe enough to ride bikes in these areas. Figure 4.4 locates grocery stores that provide fresh produce. Those who are not within a 10 mile radius of these stores are considered to be in a food dessert. Areas reporting higher instance of obesity are less likely to have adequate access to healthy food options.

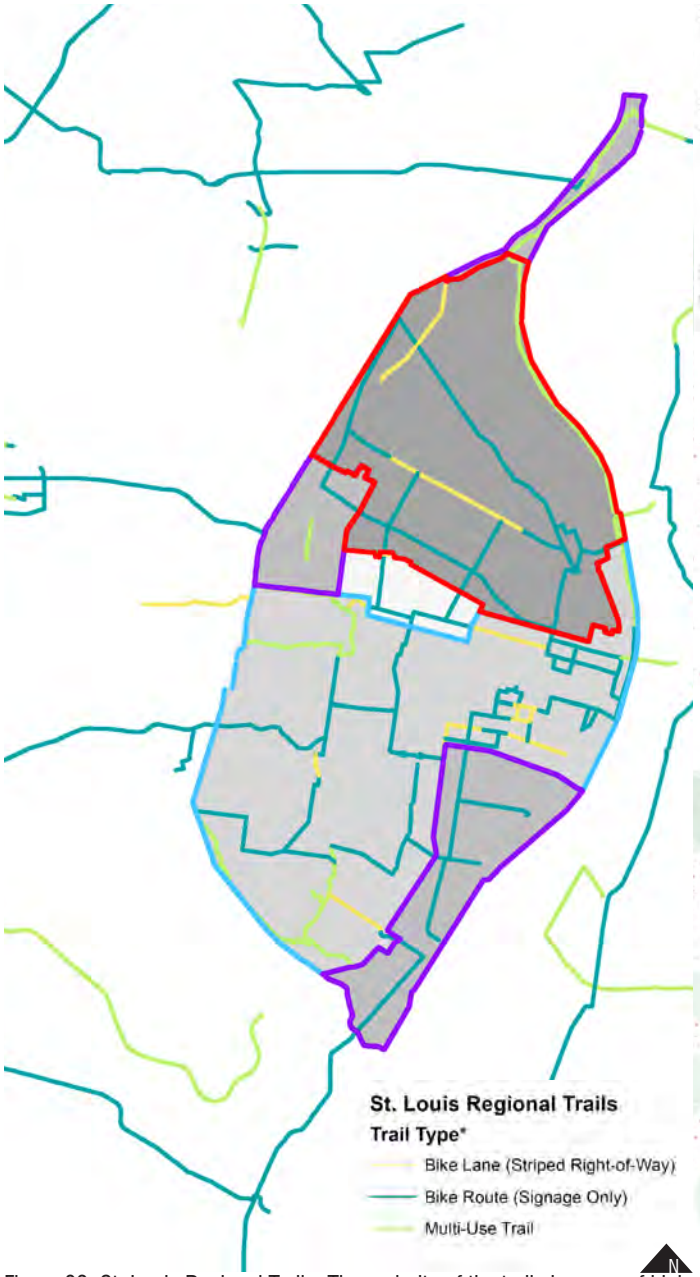


Figure 03. St. Louis Regional Trails. The majority of the trails in areas of high obesity are bike routes with signage only. Many people may not feel safe using these routes or even know they exist.

Correlation Map

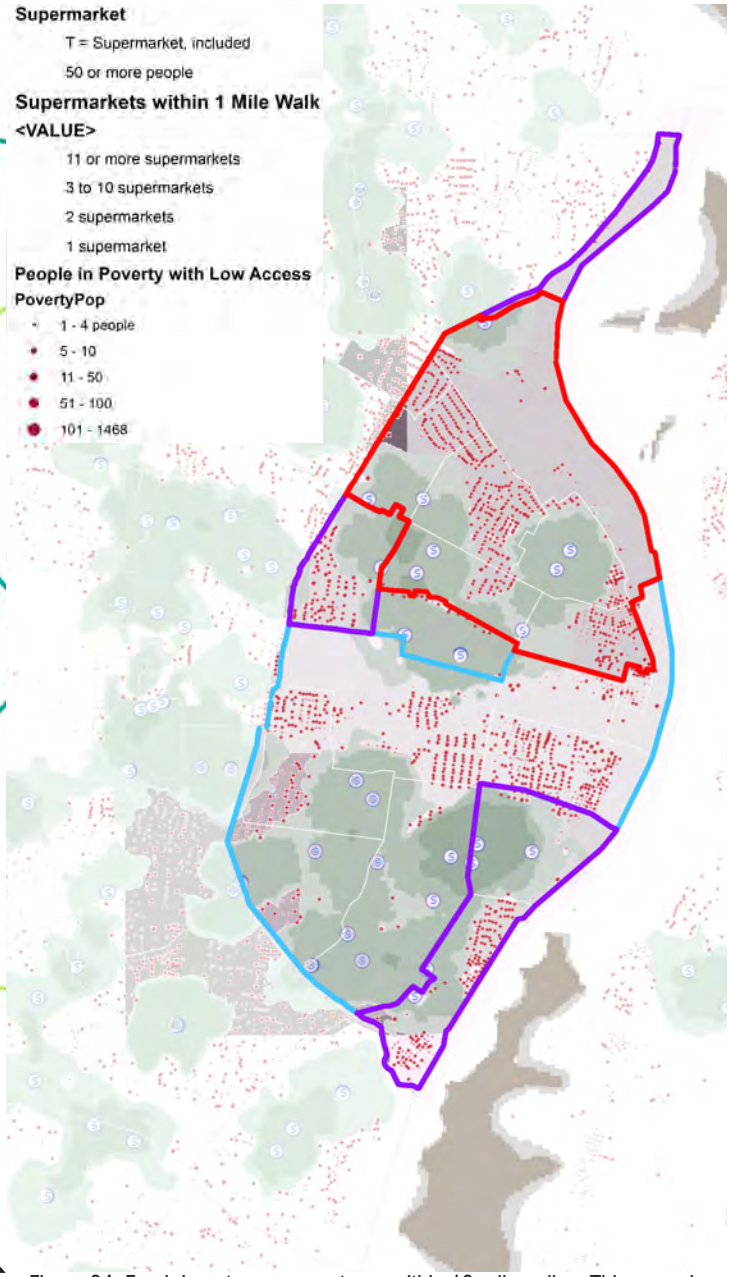


Figure 04. Food deserts, grocery stores within 10 mile radius. This map shows that areas of high obesity does not correlate to food desserts in St. Louis. Source: ArcGIS, The City of St. Louis Department of Health

Figure 4.5 Sidewalk in north St. Louis in poor condition likely due to lack of funding (Vallo)

Figure 4.6 Sidewalk in north St. Louis stops abruptly (Tucker, 2015)

Figure 4.7 Uninviting areas with high crime rates reduce desire for physical activity (Vallo)

Figure 4.8 Artwork located in Old North St. Louis shows hopeful community (Vallo)

High Percentage of Vacant Land Parcels Occur within Low Areas

Many vacant parcels could potentially support green infrastructure in St. Louis

W2_KJS02_EcologicalEvaluationMap.PDF

Figure: 01. STL Elevation Model
Source: STL GIS

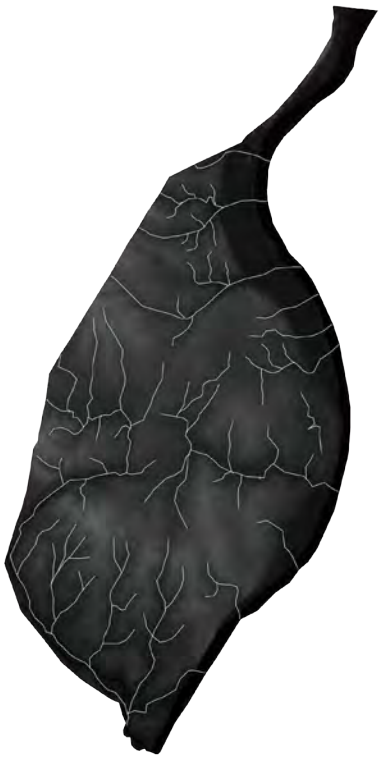


Figure: 02. Low Areas: Drainage Networks
Source: STL GIS

Inquiry: What possibilities arise when vacant parcels locations are mapped in proximity to drainage networks or drainage buffer zones?
Key Extractions: Parks, Vacant Land Parcels, Land Elevation, Drainage Networks, Drainage Buffer Zones
Methodology: Analyzing the land elevation of STL reveals where surface drainage is directed. Drainage networks were drawn in the darkest or lowest areas of the elevation map (seen in Fig. 2.2). Buffer zones were set 500 feet out from drainage networks (seen in Fig. 2.4 and 2.5). Many of St. Louis's vacant land parcels were visible within these buffer zones (see fig. 2.5).
Conclusions: There are multiple drainage networks running through North St. Louis City. All of these drainage networks run through areas of vacant land. The vacant land parcels occurring in buffer zones provide an opportunity. Vacant land within buffer zones should be prioritized for green infrastructure development and "rainscaping." "Rainscaping is any combination of plantings, water features, catch basins, permeable pavements, and other activities that manage stormwater as close as possible to where it falls, rather than moving it someplace else." (MSD Project Clear 2015) Rainscaping is a part of the MSD Project Clear, or the city's combined sewer revamp project. Locating vacant land within drainage buffer zones helps planners and city leaders begin to prioritize where vacant transformation efforts should be focused initially in order to maximize ecological and municipal benefits.

**Darker areas on map indicate lower land elevation

Figure: 03. Drainage Networks Run Through Parks and Vacant Parcels of Land
Source: STL GIS

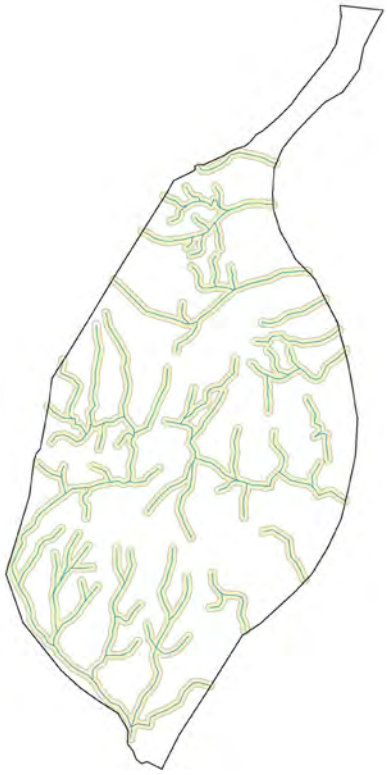
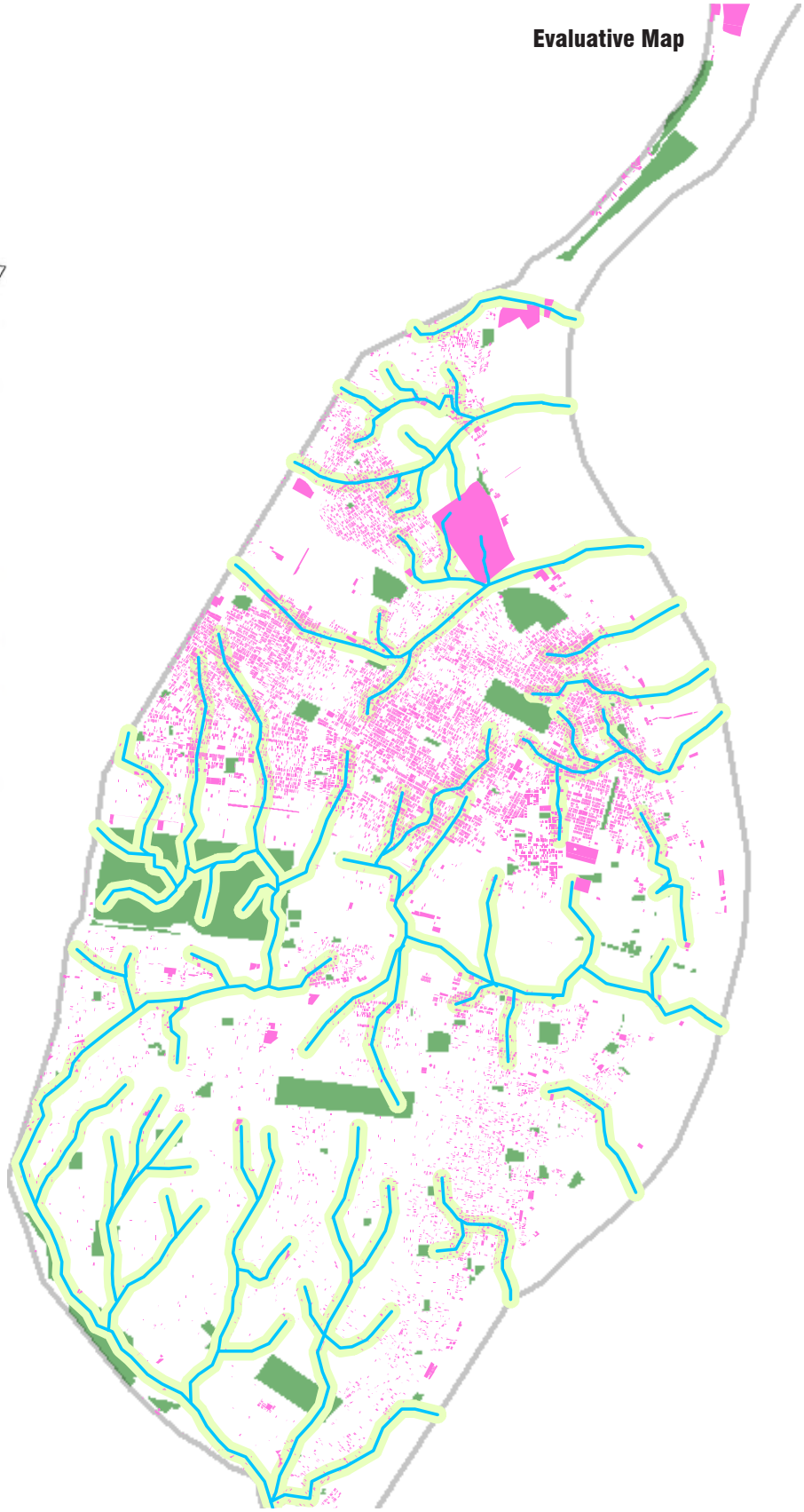


Figure: 04. 500ft Drainage Buffer Zones
Source: STL GIS

Evaluative Map



Legend

- Existing Parks
- Vacant Parcels of Land
- Drainage Networks or Low Areas
- Drainage Buffer Zones

NOT TO SCALE

Figure: 05. Vacant Parcels of Land within 500 feet of Drainage Networks Provide Opportunity
Source: STL GIS edited in photoshop

Vacant Land in Low Areas Can Be Transformed into Green Networks and Bioretention Systems

Developing vacant land parcels within buffer zones into bioretention systems take pressure off of city's sewer AND increases green connectivity

W2_KJS03_EcologicalProposalMap.PDF

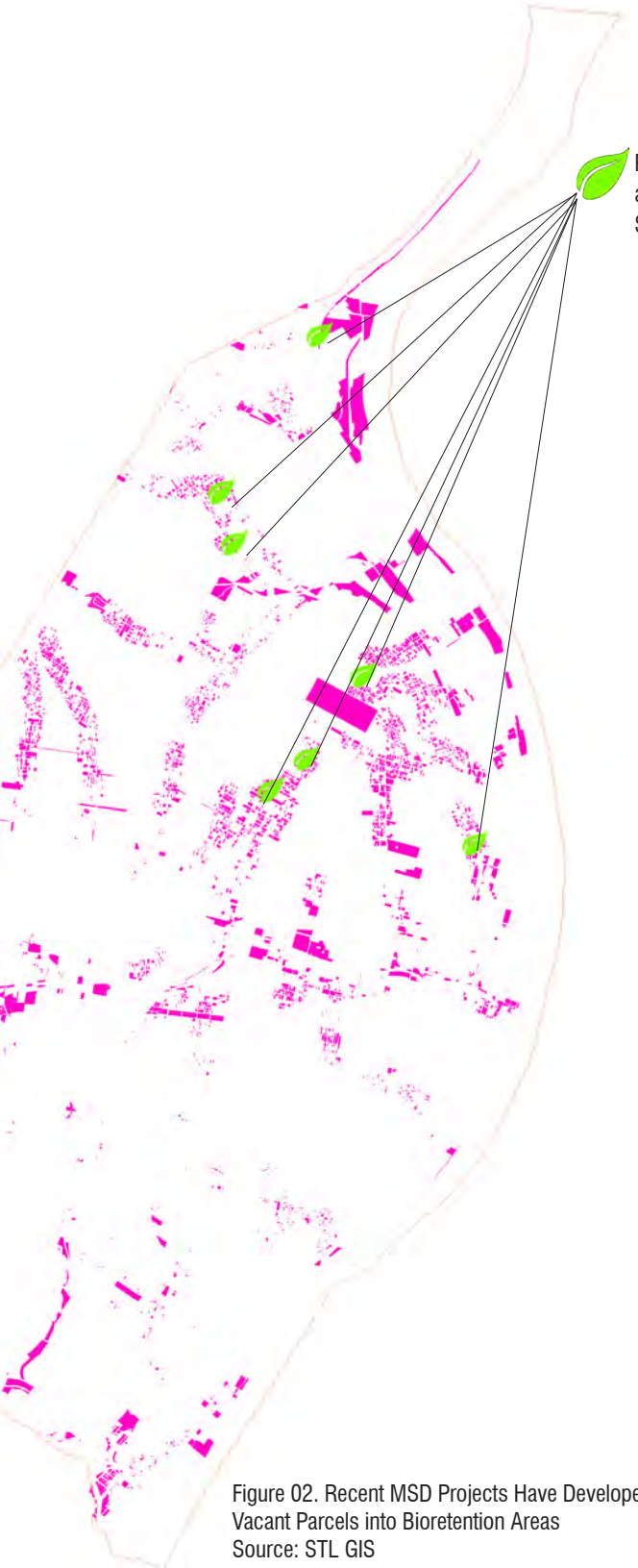
Inquiry: When addressing vacancy, how can STL set aside vacant land intended for ecological development in a manner that is connective and functionally proactive?

Key Extractions: Drainage Networks, Vacant Land Parcels, Parks, Existing Rainscaping Projects

Methodology: Using the buffer zones created in the evaluative map, vacant parcels within buffer zones are highlighted in pink. Existing bioretention projects (an effort by MSD to reduce stormwater entering the city's new sewer system) were identified on map 3.2. These existing systems occurred within the targeted vacant land area.

Conclusions: Considering drainage networks and surface water flows helps planners and city officials initially prioritize which vacant parcels should be set aside for ecological development and which parcels should be considered for other functions. Managing surface water, or storm water, creates healthier urban ecosystems and aligns with MSD's PROJECT CLEAR sewer revamp project. The existing pilot bioretention projects, led by MSD's rainscaping campaign, are located within identified drainage buffer zones. This indicates that the buffer zone target area is an accurate and appropriate ecological designation for vacant land in STL.

Figure 01. Buffer Zones Prioritize Vacant Land Intended for Bioretention and Rain Gardens
Source: STL GIS



Recently completed bioretention projects by MSD are located in the targeted low areas
Source: STL GIS

Figure 02. Recent MSD Projects Have Developed Vacant Parcels into Bioretention Areas
Source: STL GIS

Figure 03. Drainage areas often run through impervious urban areas. This is a future green network opportunity for STL.
Source: STL GIS

Who Lives Where in St. Louis

Owner Occupied Properties vs. Renter Occupied Properties

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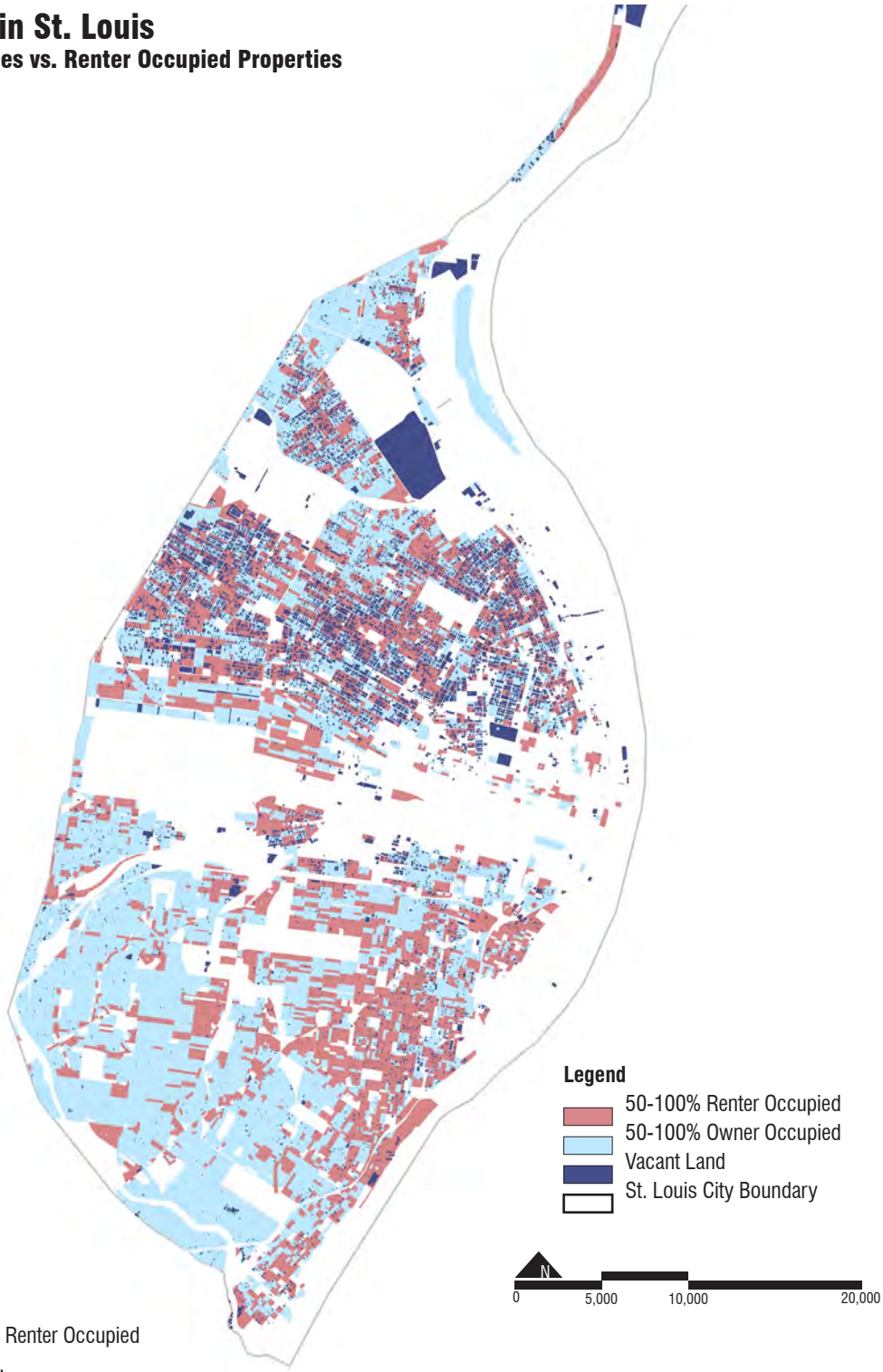


Figure 01. Owner Occupied vs. Renter Occupied
Source: The City Arc GIS 2014,
The City of St. Louis Planning and Urban Design Agency

Inquiry: Where are Owner Occupied, Renter Occupied, and Vacant Properties in the City of St. Louis?

Key Extractions: Home Owners, Renters, Vacancy

Methodology: For figure 1.1 Census block data was obtained from The City of St. Louis Planning and Urban Design Agency. Census block shape files were obtained from https://www.census.gov/cgi-bin/geo/shapefiles2014/main.. The layers “Owner Occupied by %” and “Renter Occupied by %” were created from the data and turned on. The layers “Vacant lots 2015” and “Vacant bldg 2015” were also turned on. For figure 1.2 Vacant lots 2015 and Vacant bldg 2015 were turned off and dot density layers were created for Owner occupied parcels and renter occupied parcels from the census block data.

Conclusions: High concentrations of owner occupied housing are in the southwest part of St. Louis. High concentrations of renter occupied properties are in the southeast. In the north, owner occupied properties and renter occupied properties are mixed.

Classification Map

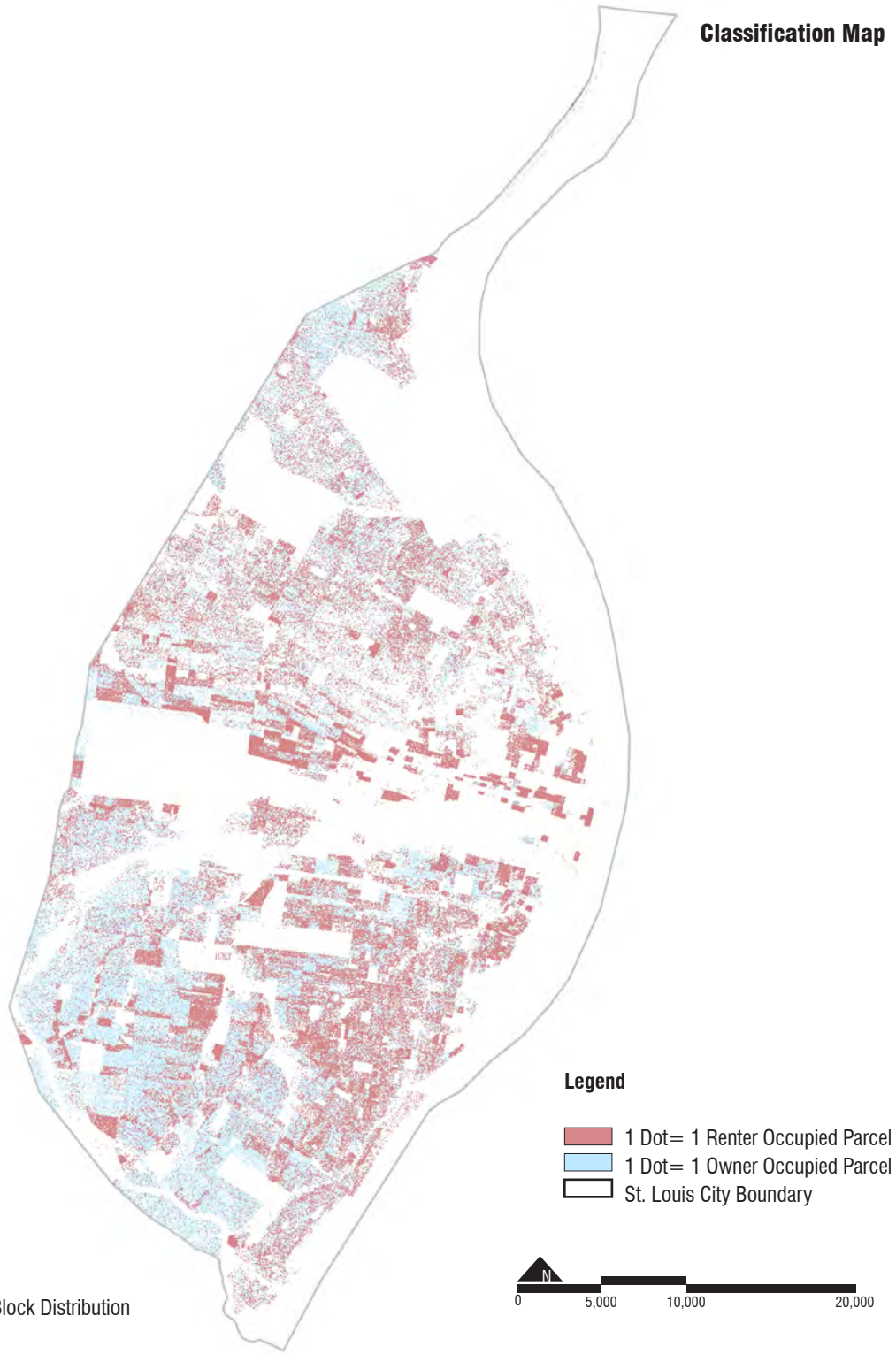


Figure 02. Owner Occupied Renter Occupied Block Distribution
Source: The City Arc GIS 2014,
The City of St. Louis Planning and Urban Design Agency

Vacancy is Predominantly in the North

Both Owner Occupied and Renter Occupied Properties Show Signs of High Vacancy

File: W2_LS01_10K_OwnerRenter.PDF

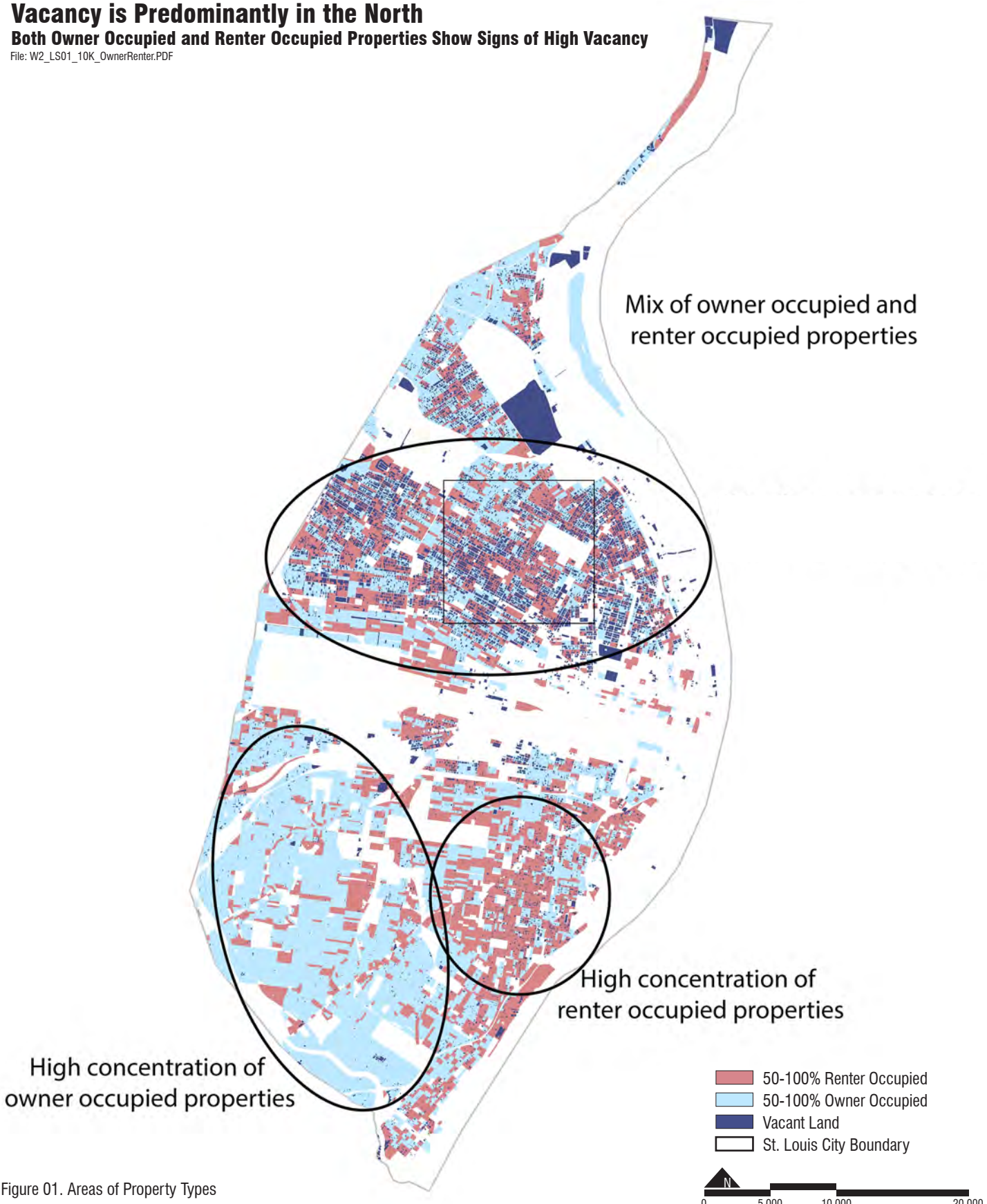


Figure 01. Areas of Property Types

Source: The City of St. Louis Arc GIS 2014 and The City of St. Louis Planning and Urban Design Agency

Figure 02. Vacancies are found on both owner occupied and renter occupied properties
Source: The City of St. Louis Arc GIS 2014 and The City of St. Louis Planning and Urban Design Agency
Inquiry: How do owner occupied properties and renter occupied properties relate to vacancy?
Key Extractions: Area Concentrations, Blight
Methodology: Concentrations of property types were determined and areas of vacancy were noted
Conclusions: The area with the highest level of vacancy is a mix of owner occupied and renter occupied properties. The area with the second highest level of vacancy is in the southeast. The area with the lowest level of vacancy is in the southwest. Vacancy is spread evenly throughout owner occupied and renter occupied properties indicating that the area is stressed.

Areas with Over 70% Blight to are Candidates for Vacancy Consolidation

Areas of Vacant Land Have Potential for Redevelopment

File: W2_LS01_10K_OwnerRenter.PDF

Figure 01. Shift of Property Owners to Consolidate Vacant Areas
Source: The City of St. Louis ARC GIS 2014 and The City of St. Louis Planning and Urban Design Agency
Inquiry: How to redistribute vacant homes?
Key Extractions: Vacancy Consolidation
Methodology: Analysis of maps to determine areas of high vacancy and low vacancy within north St. Louis City.
Conclusions: Blocks with a 70% vacancy rate should be fully vacated. Blocks will then be consolidated into an area of vacant land. This vacant land can remain undeveloped or be repurposed for other uses such as parks or business developments. Property owners that have to vacate can move to vacant properties surrounding the vacated area that are only beginning to show signs of stress.

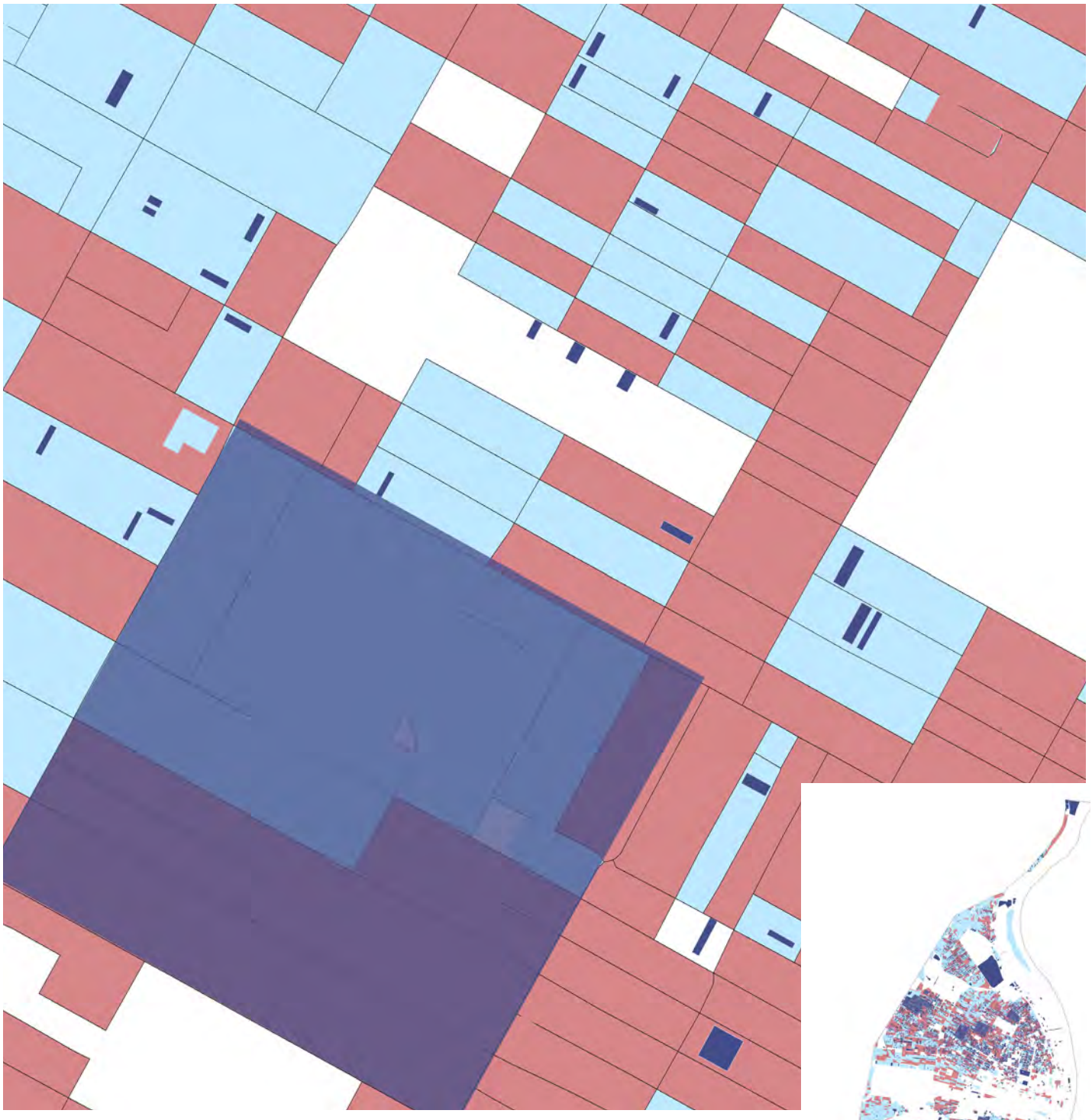


Figure 02. Consolidated Vacant Property Reduces Vacancy in Surrounding Properties
Source: The City of St. Louis ARC GIS 2014 and The City of St. Louis Planning and Urban Design Agency
Conclusions: Model can be repeated strategically throughout St. Louis to create vacant land patches to be repurposed

Vacant Parcels Occur in Clusters Throughout the City

Larger concentrations occur mainly in the northern part of the city and along interstates

File name: W8_NEH01_3mi_VacancyvsSLUP.PDF

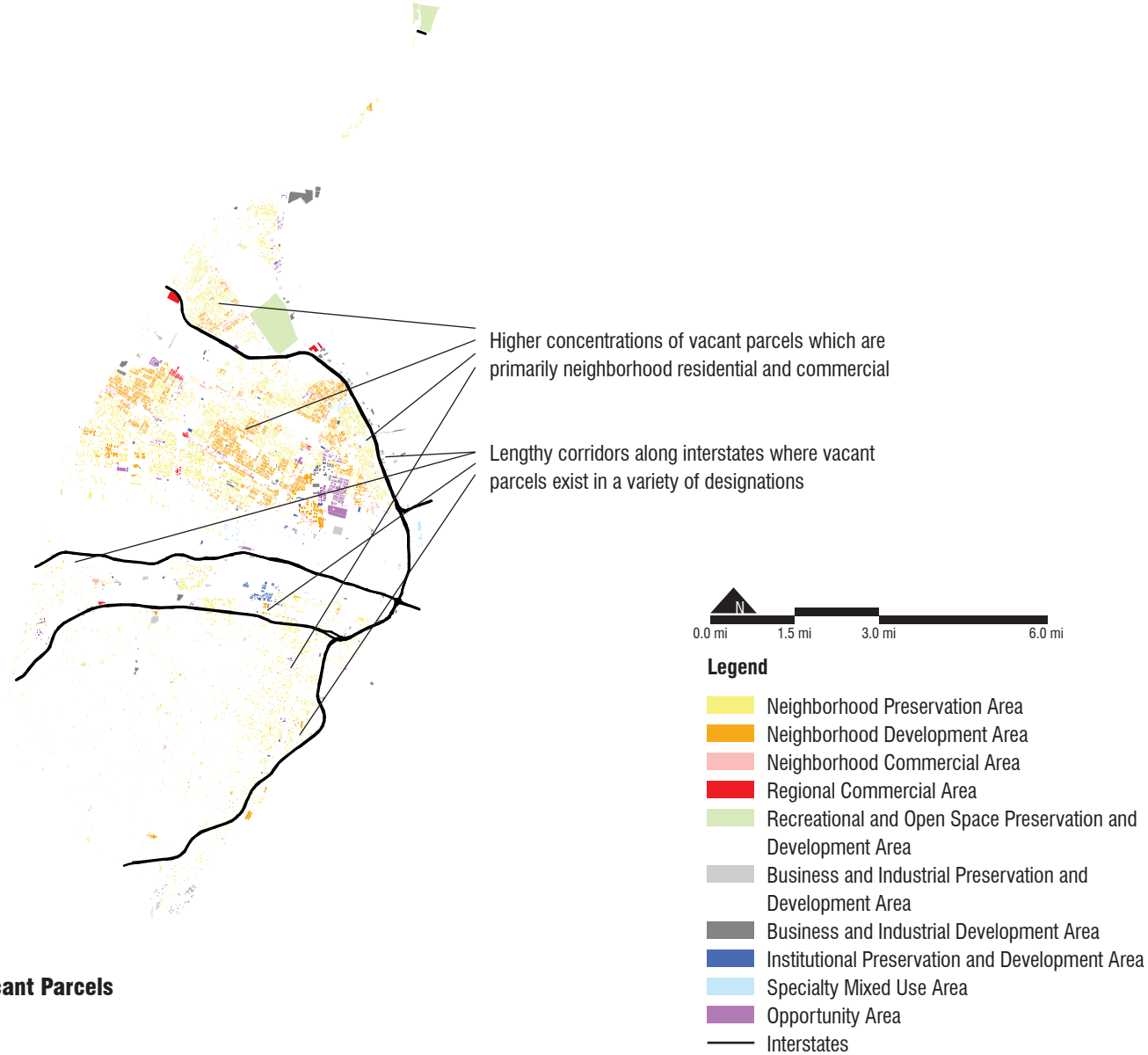
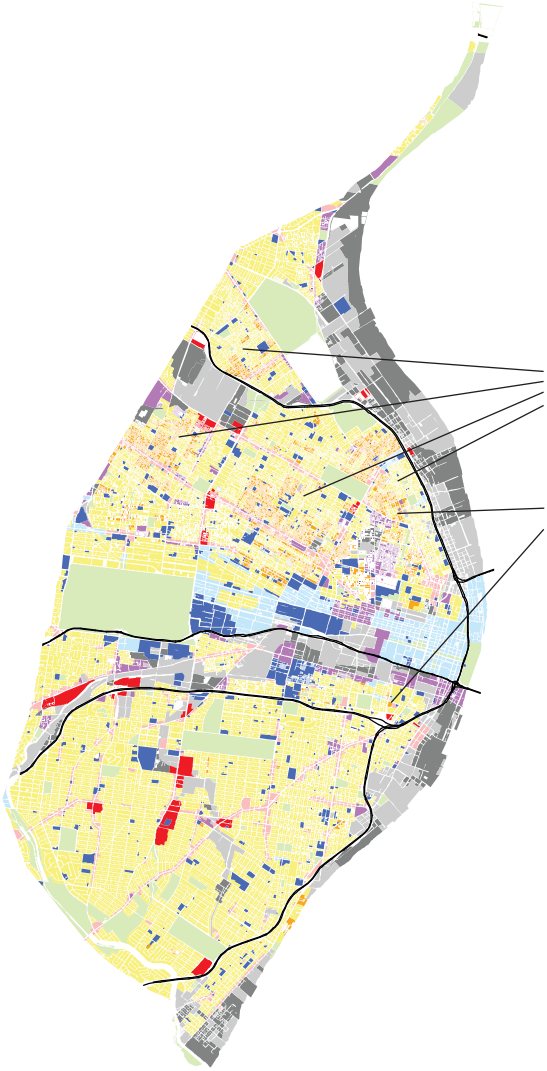


Figure 01. The City's master plan approach to developing vacant and occupied parcels in relation to the presence of neighborhoods and interstates
Source: City of St. Louis 2015, University of Missouri 2014

Inquiry: Does the City of St. Louis's Strategic Land Use Plan (SLUP) address all of the vacant parcels throughout the city using development?
Key Extractions: City of St. Louis Ownership Parcels featuring Vacancy Data, SLUP, Interstates
Methodology: Vacant building and lot data was obtained from the City of St. Louis for 2015. These datasets were then merged the SLUP dataset, also obtained from the city of St. Louis, using ArcGIS. Next, vacant parcels were plotted according to SLUP designation colors, with occupied parcels left white. A similar map was made for occupied parcels. Interstate data was obtained from the University of Missouri and superimposed upon both maps to show the relationship between vacant parcels and proximity to interstates.
Conclusions: Vacant parcels occur in highest concentrations in the northern and southeastern portions of the city, as well as along interstates. Much of this vacancy is designated as "areas where the existing housing and corner commercial building stock will be preserved and augmented with infill residential and corner commercial development." Parcels designated as "suitable for new residential construction of scale/associated neighborhood services" however, primarily feature either a vacant building or vacant land.



Scattered occupied parcels, primarily residential and commercial

New developments upon occupied parcels are few and far between

Occupied Parcels

Legend

- Neighborhood Preservation Area
- Neighborhood Development Area
- Neighborhood Commercial Area
- Regional Commercial Area
- Recreational and Open Space Preservation and Development Area
- Business and Industrial Preservation and Development Area
- Business and Industrial Development Area
- Institutional Preservation and Development Area
- Specialty Mixed Use Area
- Opportunity Area
- Interstates

Many High Value Land Areas Contain Mix-Use Development

Areas Surrounding Mix-Use Land Have High Land Value

W3_TT01_157K_MIXEDUSE.PDF

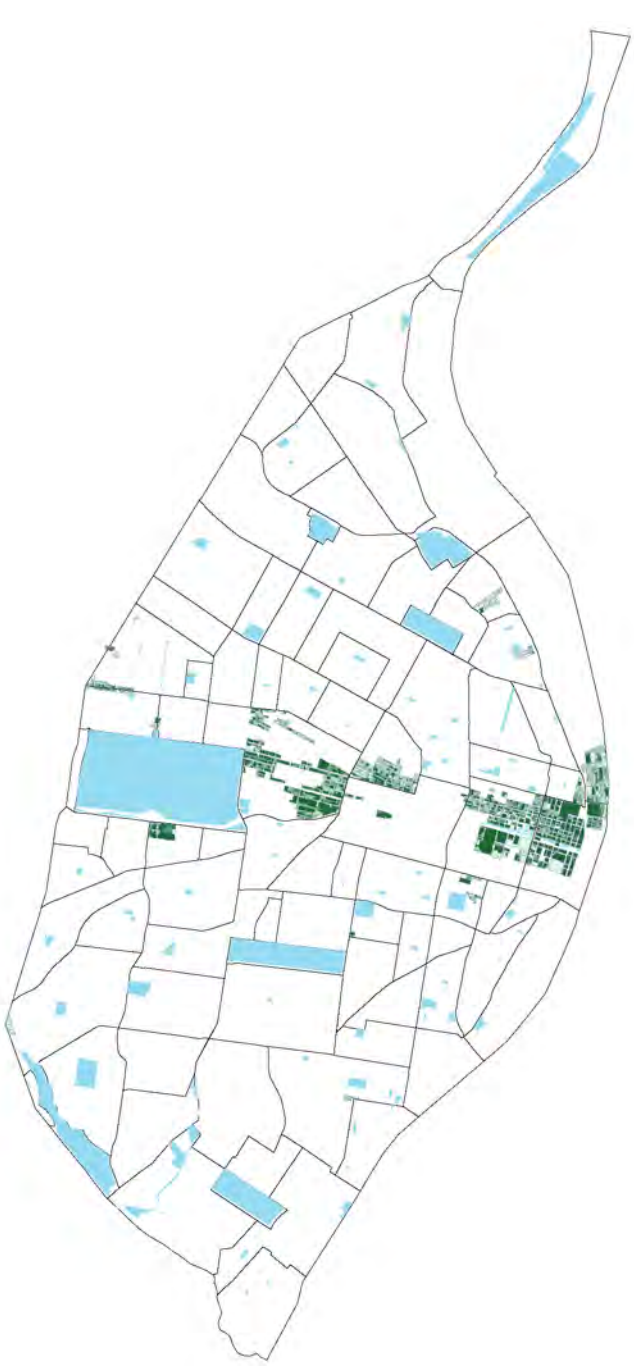


Figure 01. Land Value of Mix-Use Areas
Source: (St. Louis, 2015)

Figure 02. Land Value of Areas Surrounding Mix-Use Areas
Source: (St. Louis, 2015)

Inquiry: What areas of St. Louis can be redeveloped into mix-use development?
Key Extractions: Land Value, Mixed-Use, Surrounding Area
Methodology: Using the land value data and the SLUP data provided by the city of St. Louis, I created maps in ArcGIS for the value of land in mix-use areas and the land that surround them. Using these maps I examined the areas of St. Louis with low land value that may benefit from mix-use development. I created the final map using land value data provided by St. Louis and created areas of redevelopment using Photoshop.
Conclusions: St. Louis has many mix-use areas with high land values. These areas tend to have high land values surrounding them. If St. Louis was to create more mix-use redevelopment, land value in those areas have the chance to rise and bring in other development.

Figure 03. Proposed Areas for Mix-Use Redevelopment
Source: (St. Louis, 2015)

High Amounts of Crimes Occur around High Amounts of Vacant Land in St. Louis

High amounts of crimes per capita occur in areas with large amounts of vacant lands

W2_TK01_156K&96K_Crimes&Vacancies.PDF

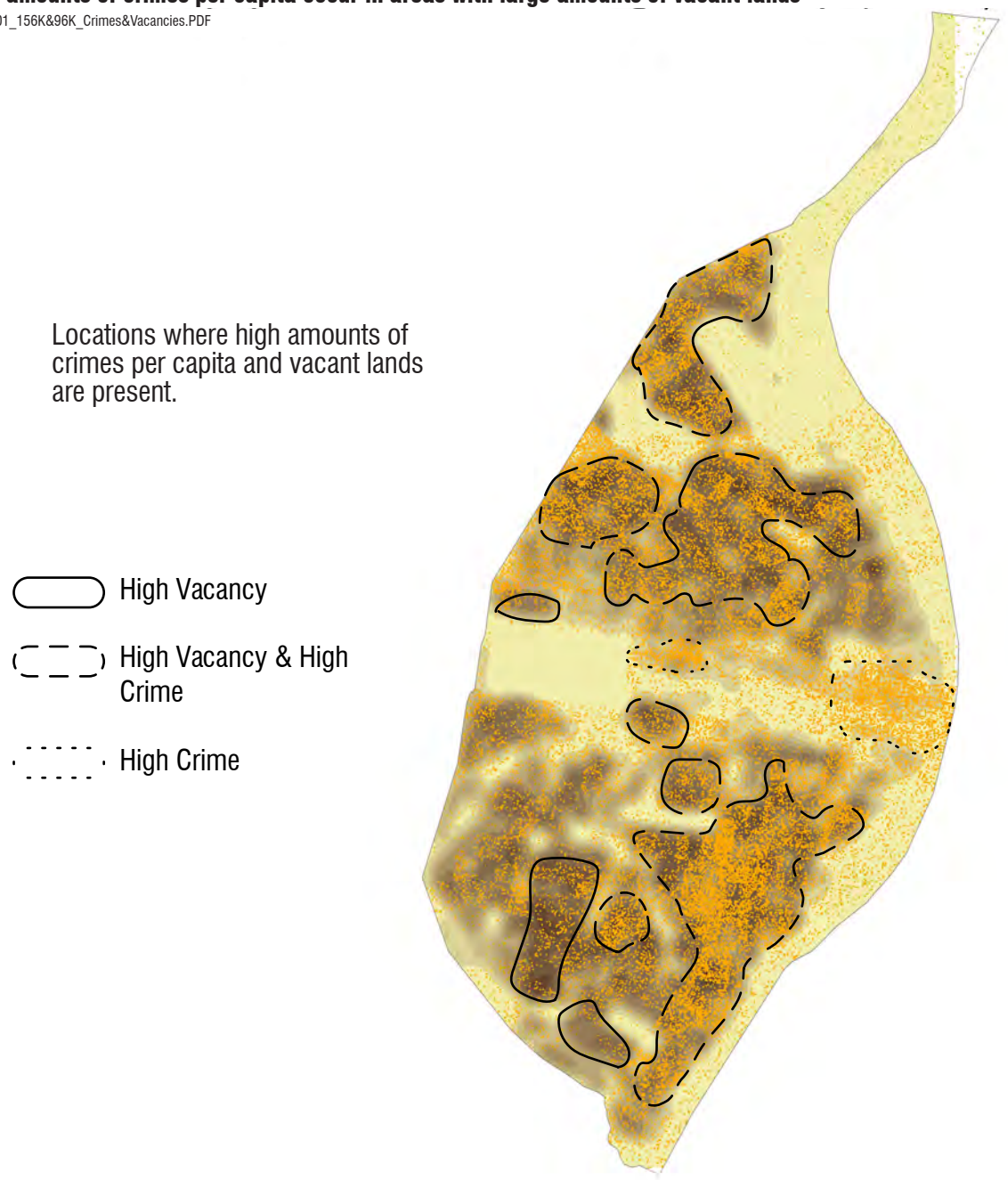


Figure 01. Entire City of St. Louis Crimes per Capita in Areas with Large Amounts of Vacant Lands
Source: BGPerCapitaHotSpot from ArcGIS Online (jenn775 2014); Vacant Land Data provided to Class (City of St. Louis 2015); World Street Map (City of St. Louis)

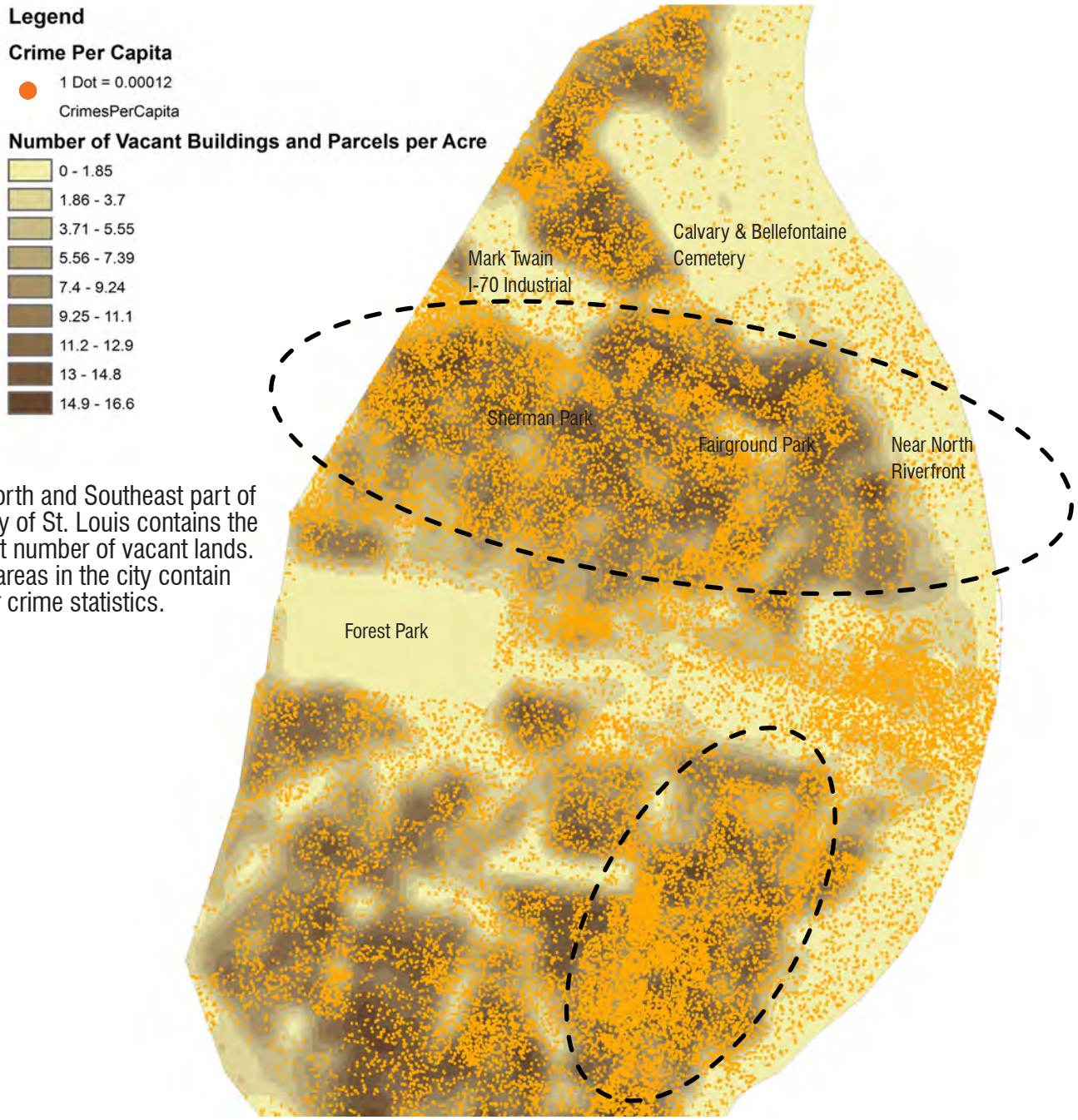
Inquiry: Are crimes more likely to happen on or around vacant land?

Key Extractions: Crimes per Capita and Vacant Land with World Street Map as background

Methodology: Two main data sets were used to create these maps. The first data set was the KSU_STL.gdb which contained the vacant parcels and building files for the city. That data was changed form a shape file into a point file, which was then used to create a kernel density map (also known as a heat map). Next, a Block Group data set was obtained form ArcGIs Online. This data set contained the number of crimes per capita per year (2014) throughout areas of the city. This data was changed to a dot density map then placed on top of the vacancy kernel density map. In order to mask out other parts of the data a mask created by Neal Heidt was used. Next, locations of high amounts of crimes per capita and vacant land were circled in order to draw attention to the correlation between the two.

Conclusions: Overall, the North and Southeast parts of the City of St. Louis contain more crimes per capita than other parts of the city. However, there are significantly more vacant houses in the North than in the Southeast. The number of vacant land has a correlation with number of crimes per capita.

Correlation Map



The North and Southeast part of the City of St. Louis contains the highest number of vacant lands. Other areas in the city contain similar crime statistics.

Figure 02. North St. Louis Crimes per Capita in Areas with Large Amounts of Vacant Lands
Source: BGPerCapitaHotSpot from ArcGIS Online (jenn775 2014); Vacant Land Data provided to Class (City of St. Louis 2015); World Street Map (City of St. Louis)

1 inch = 7,987 feet
1:95,839
0 3,700 7,400 14,800 22,200 29,600 Feet

1 inch = 11,980 feet
1:143,759
N
0 7,250 14,500 21,750 29,000 Feet

Localized Landscape Interventions Work to Strengthen Surrounding Communities

Localized Landscape Interventions Provide Centralized Locations to Serve as a Community Base and Anchor

W2_TK03_56K_Crimes&Vacancies.PDF

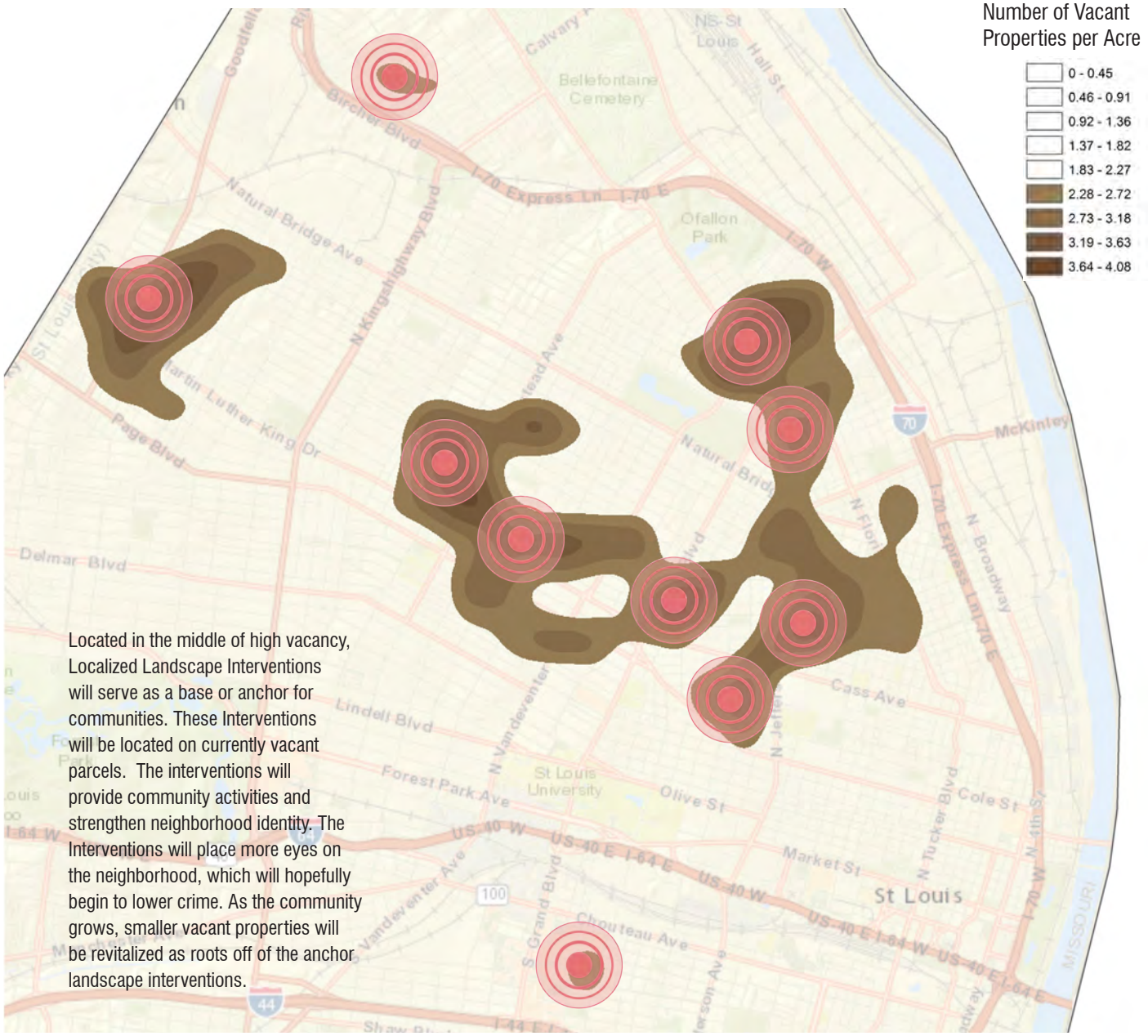


Figure 01. Entire City of St. Louis Crimes per Capita in areas with large amounts of Vacant Lands
Source: Vacant Land Data provided to Class (2013); World Street Map (City of St. Louis)

Inquiry: How might individual designed landscape hot spots act to reduce vacant land and crime within its surrounding context?

Key Extractions: High amounts of vacant land

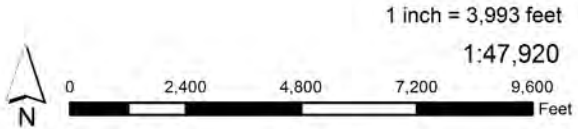
Methodology: Within the KSU_STL.gdb the Parcels2013 shape file was used. The Parcels2013 file contains the vacancy of each parcel in the city. That data was changed form a shape file into a point file, which was then used to create a kernel density map (also known as a heat map). In this map only vacant properties of 2.28 or higher per acre are show to illustrate their geometries. In order to mask out other parts of the data a mask was used. In order to show context a city map was placed below the extracts. In order to mask out other parts of the data a mask was used. This mask was obtained form Neal Heidt. Next, a hot spot locations were placed on top of all other maps. The images to the right are used to illustrate what these areas might look like.

Conclusions: Individual designed landscape sites might help reduce vacant land and crime by beautifying the landscape and reducing structures that might house crime. These sites can function as localized landscape interventions for community building and engagement.

Hot Spot Precedents

Figure 02. Sea of sunflowers used as a community hot spot
Source: Reilly 2015

Figure 03. Community garden and open space as community hot spot
Source: Pennsylvania Horticultural Society 2015



Highways Are Dividing Neighborhoods In St. Louis, MO

Road conditions create additional tension on divided communities

W2_TJS_4K_NeighborhoodDivision.PDF

Zone 1

64. Near North Riverfront
71. Mark Twain
72. Walnut Park East
73. North Pointe
74. Baden
75. Riverview
76. Walnut Park West
79. North Riverfront

Zone 2

35. Downtown
36. Downtown West
37. Midtown
38. Central West End
46. Skinker DeBaliviere
45. Wydown Skinker
47. DeBaliveire Place
48. West End
49. Visitation Park
50. Wells Goodfellow
51. Academy
52. Kingsway West
53. Fountain Park
54. Lewis Place
55. Kingsway East
56. Greater Ville
57. The Ville
58. Vandeventer
59. Jeff Vandeventer
60. St. Louis Place
61. Carr Square
62. Columbus Square
63. Old North St. Louis
65. Hyde Park
66. College Hill
67. Fairground Neighborhood
68. O'Fallon
69. Penrose
70. Mark Twain I-70 Industrial
77. Covenant Blu-Grand Center
78. Hamilton Heights

Zone 3

10. Ellendale
12. The Hill
28. Botanical Heights
29. Tiffany
31. The Gate District
32. Lafayette Square
33. Peabody Darst Webbe
34. LaSalle Park
39. Forest Park South East
40. Kings Oak
41. Cheltenham
42. Clavton-Tamm
43. Franz Park
44. Hi-Pointe

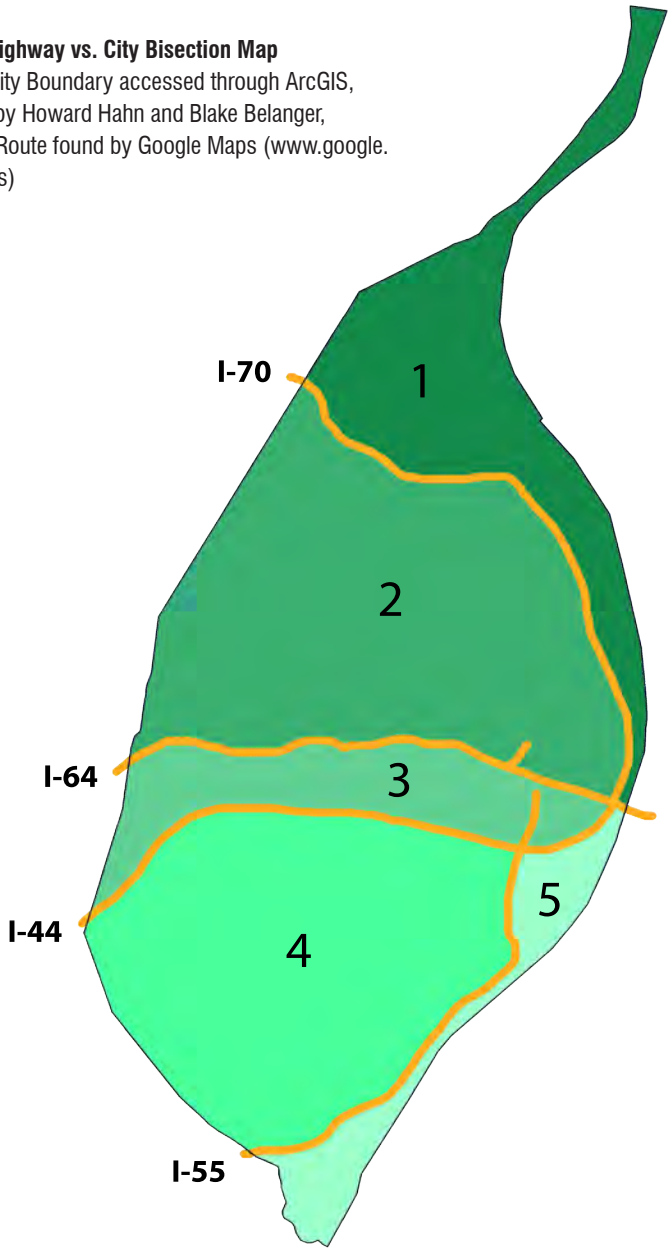
Zone 4

3. Holly Hills
4. Boulevard Heights
5. Bevo Mill
6. Princeton Heights
7. South Hampton
8. St. Louis Hills
9. Lindenwood Park
11. Cliffton Heights
12. The Hill
13. Southwest Garden
14. North Hampton
15. Tower Grove South
16. Dutchtown
19. Gravois Park
22. Benton Park
23. McKinley Heights
24. Fox Park
25. Tower Grove East
26. Compton Heights
30. Benton Park West

Zone 5

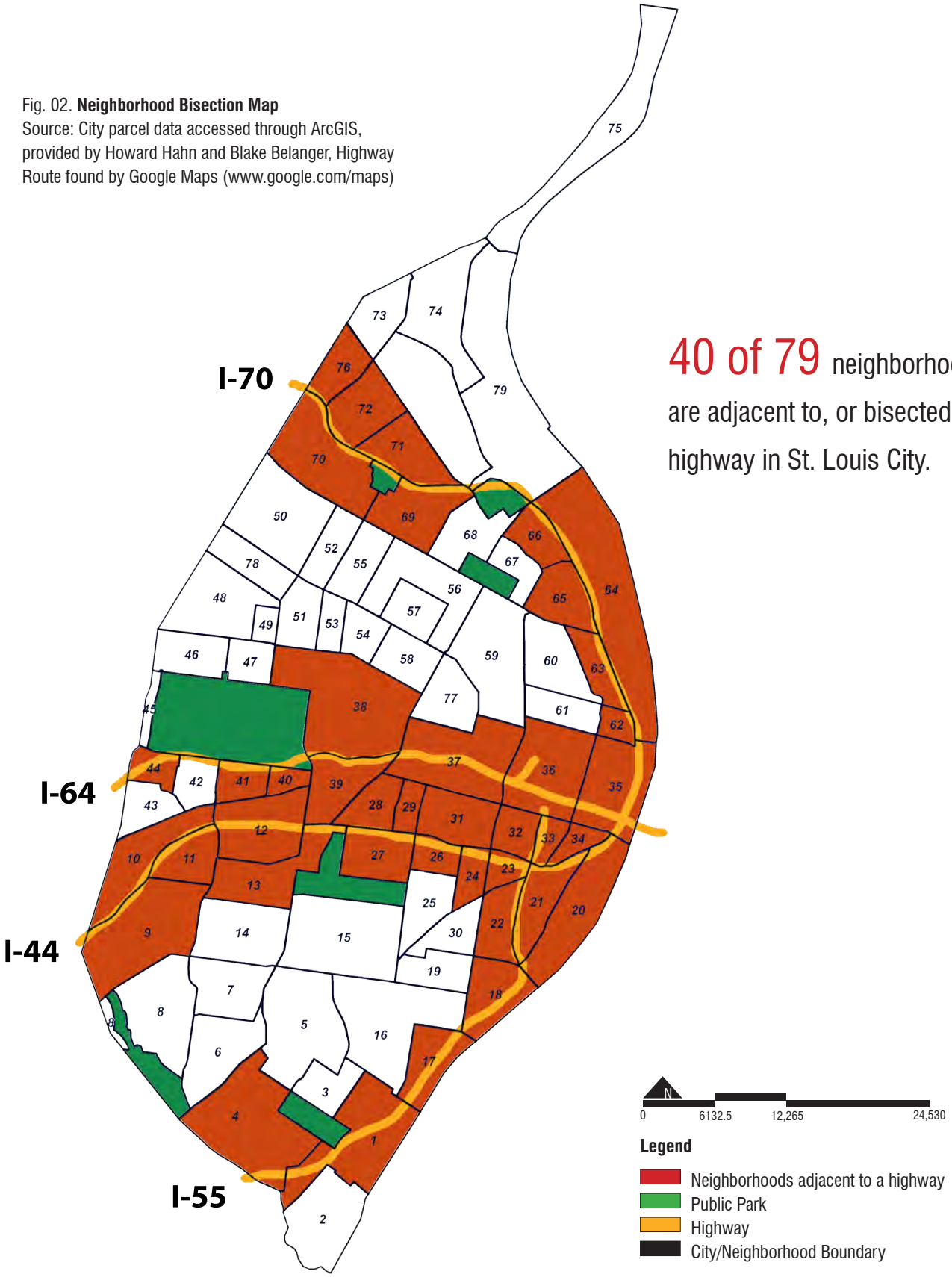
1. Carondelet
2. Patch
17. Mount Pleasant
18. Marine Villa
20. Kosciusko
21. Soulard

Fig. 01. **Highway vs. City Bisection Map**
Source: City Boundary accessed through ArcGIS, provided by Howard Hahn and Blake Belanger, Highway Route found by Google Maps (www.google.com/maps)



Inquiry: How do St. Louis' highways disconnect the city and community neighborhoods?
Key Extractions: Divided Neighborhoods, Highway Boundaries
Methodology: Neighborhood Boundary, City Limit Boundary, Highway Routes, Park Locations, City Context
Conclusions: The four highways traversing through St. Louis bisect the neighborhood communities. The physical characteristics of the highway system impact the neighborhoods directly adjacent to, or bisected by, the roads.

Fig. 02. **Neighborhood Bisection Map**
Source: City parcel data accessed through ArcGIS, provided by Howard Hahn and Blake Belanger, Highway Route found by Google Maps (www.google.com/maps)

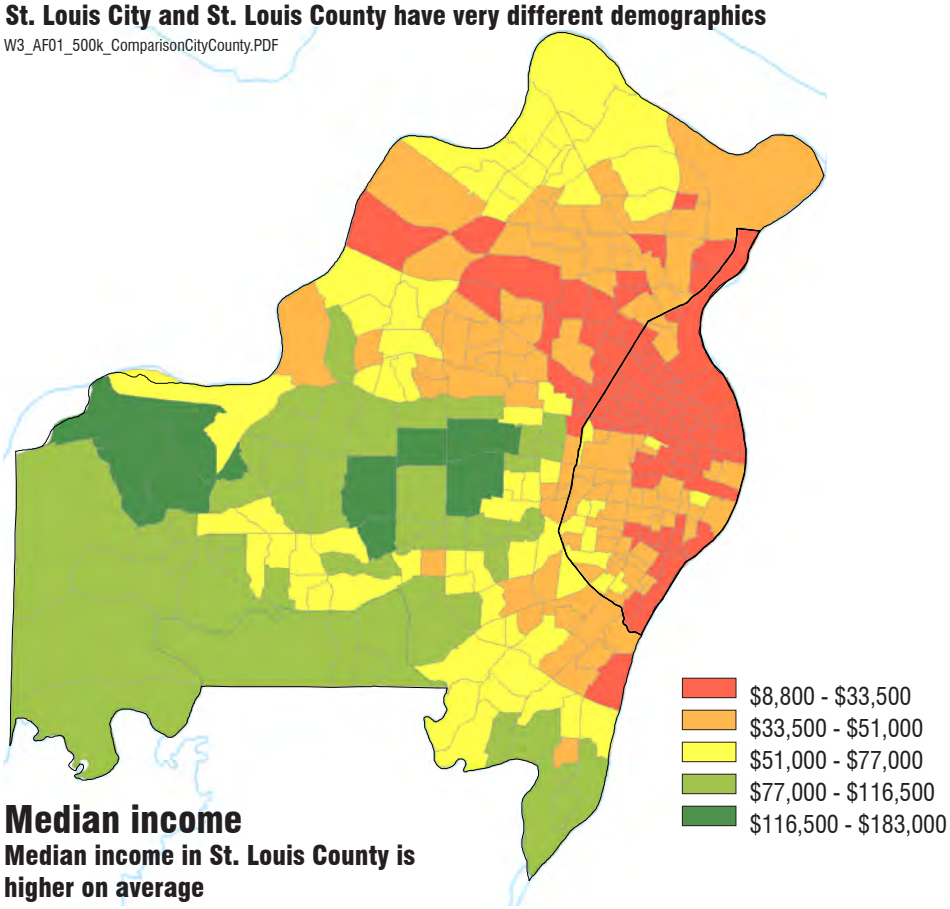


40 of 79 neighborhoods are adjacent to, or bisected by, a highway in St. Louis City.

Comparing St. Louis City and St. Louis County

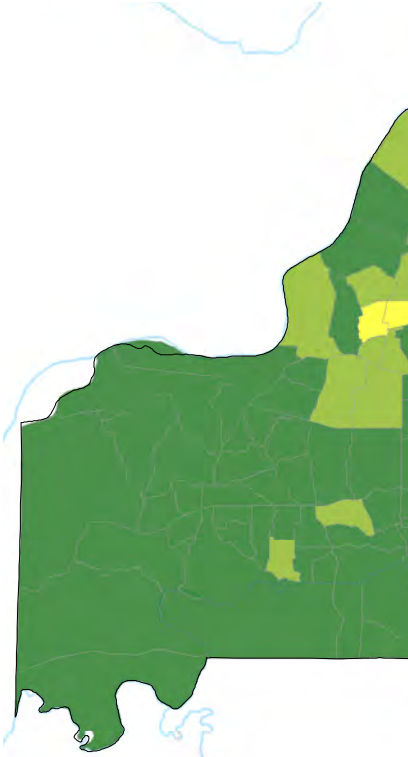
St. Louis City and St. Louis County have very different demographics

W3_AF01_500k_ComparisonCityCounty.PDF



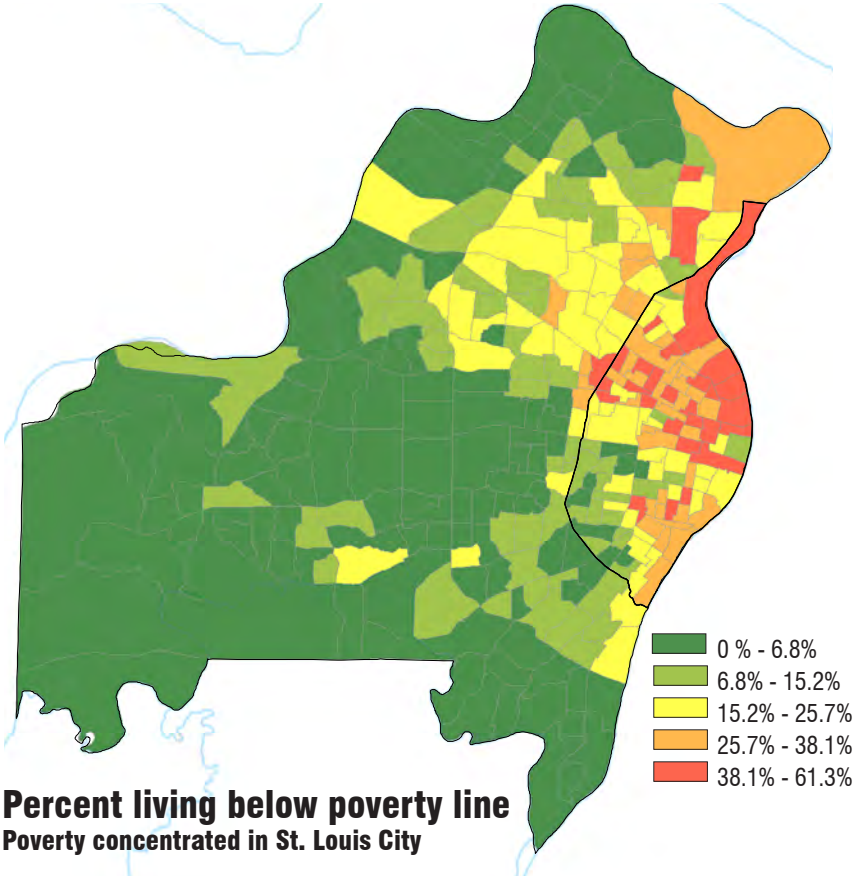
Median income

Median income in St. Louis County is higher on average



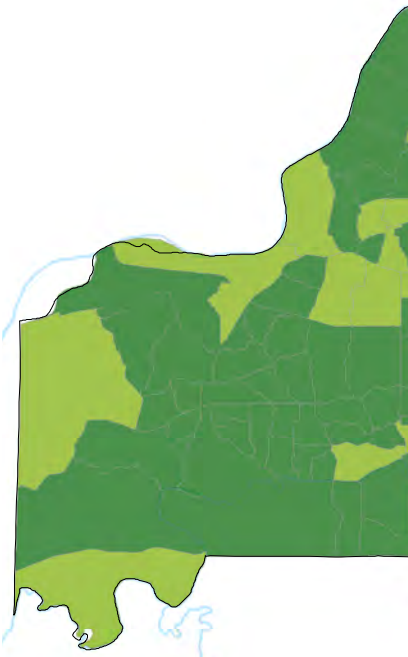
Minorities

Concentration of minority populations higher in St. Louis City



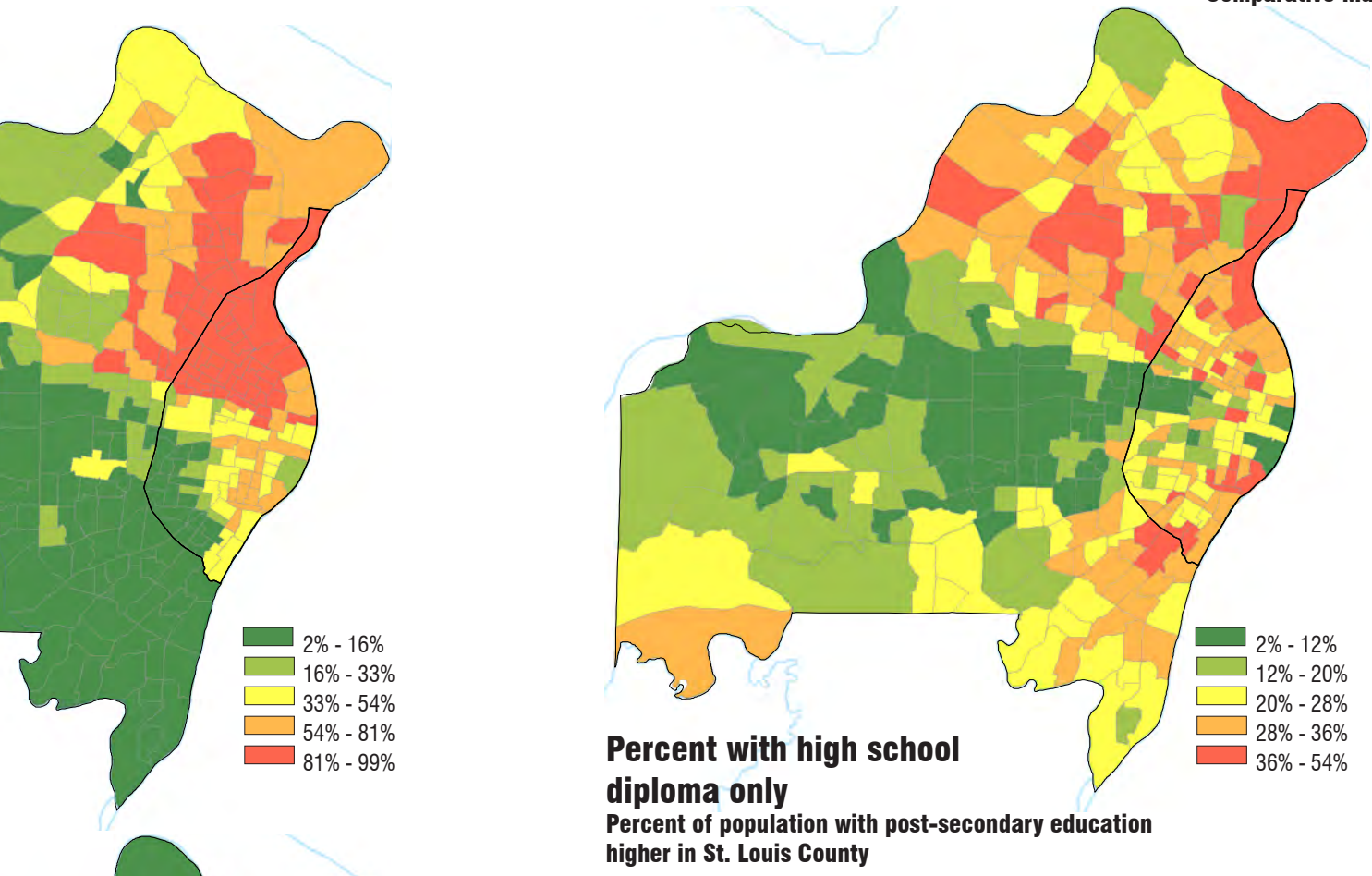
Percent living below poverty line

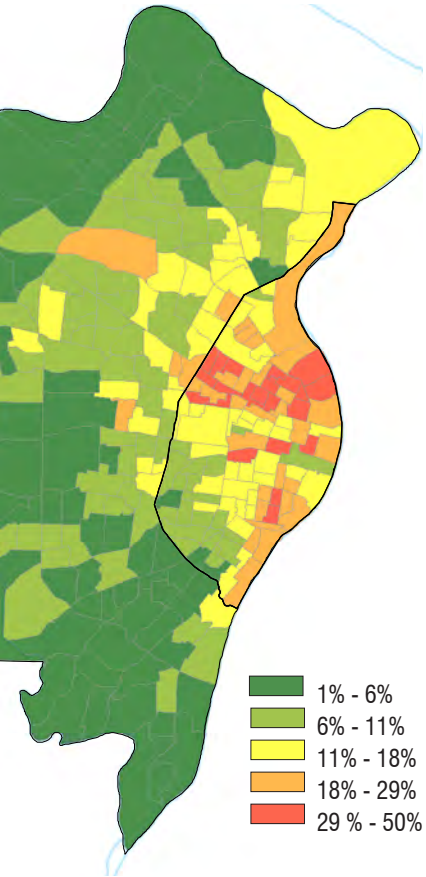
Poverty concentrated in St. Louis City



Percent vacant buildings

High concentration of vacant buildings in St. Louis City compared with County





Figures 01-05. Differences between St. Louis City and St. Louis County
Source: United States Census 2010 taken from Missouri Spatial Data Information Service, 2015

Inquiry: How do the demographics in St. Louis City compare to St. Louis County?
Key Extractions: St. Louis County, St. Louis City, Median Household Income, Minorities, Education
Methodology: 2010 Census data was used to extract information for St. Louis City and St. Louis County. Areas are divided by census tract. Data was manipulated to show differences in demographics between St. Louis City and the surrounding county.
Conclusions: St. Louis County and St. Louis City are divided not just by a boundary but by several other social and economic aspects.

Five Shrinking Cities Suggest Strategies for Desegregation in St. Louis

Five shrinking cities that are no longer hypersegregated serve as a model for St. Louis.

W3_CRB_DemographicDivide_MixedUseCorridor.PDF

Hypersegregated American Cities 2010

(Princeton University, 2015)

As of 2013	As of 2010
Shrinking Cities List	**No Longer Hypersegregated**
Baltimore, MD	Albany, GA
Buffalo, NY	Amarillo, TX
Cincinnati, OH	Asheville, NC
Cleveland, OH	Atlanta, GA
Detroit, MI	**Buffalo, NY**
Flint, MI	**Cincinnati, OH**
New Orleans, LA	**New Orleans, LA**
Philadelphia, PA	**Pittsburgh, PA**
Pittsburgh, PA	Richmond, VA
St. Louis, MO	Roanoke, VA
Washington D.C.	Saginaw, MI
Youngstown, OH	Savannah, GA
	Springfield, MA
	Toledo, OH
	Washington D.C.
	Wichita, KS
	York, PA

(The City After Abandonment, 2013)

The cities listed above have consecutively declined in population over the last five decades. The underlined cities are ones that are both shrinking and no longer hypersegregated. St. Louis is still classified as hypersegregated and has still been shrinking as of the 2010 U.S. Census report.

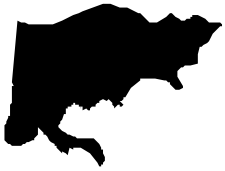
(Princeton University, 2015)

The cities listed above are ones that have formerly been listed as hypersegregated, but no longer receive that designation as of 2010. The underlined cities are ones that are both shrinking and no longer hypersegregated.

Figure 01. Shrinking and Hypersegregated Cities and what St. Louis can learn
Source: Michael Hotchkiss. 2015. "Hypersegregated Cities Face Tough Road to Change." News at Princeton. May 18. http://www.princeton.edu/main/news/archive/S43/13/56K19/index.

Inquiry: What strategies can the city of St. Louis employ to remove its status as one of America's most hypersegregated cities?
Key Extractions: St. Louis, Segregation, Mixed-Use Development, Transit Oriented Development, Shrinking Cities, Urbanization
Methodology: A recent study by Princeton University reveals that St. Louis is one of America's most hypersegregated cities. From 1970 to 2010, 19 cities no longer received a hypersegregated designation, hinting at a positive trend of demographic mixing. This list of 19 cities was cross referenced with a shrinking cities list, in order to relate to St. Louis current population trends.
Conclusions: Eleven out of twelve cities listed on the shrinking cities list are also listed as hypersegregated cities, drawing a strong correlation between population decline and extreme demographic polarization. Of these eleven shrinking cities, five also appear on the Princeton University study as no longer receiving a hypersegregated status. Therefore, the City of St. Louis can look to the development patterns in these five cities, whether intentional or unintentional, that promoted a higher degree of demographic mixing, and subsequently no longer receive a status of hypersegregated. The cities are: Buffalo, New York; Cincinnati, Ohio; New Orleans, Louisiana; Pittsburgh, Pennsylvania; and Washington D.C..

Transit-Oriented and Mixed-Use Development as a Means to Stimulate Growth and Reduce Segregation

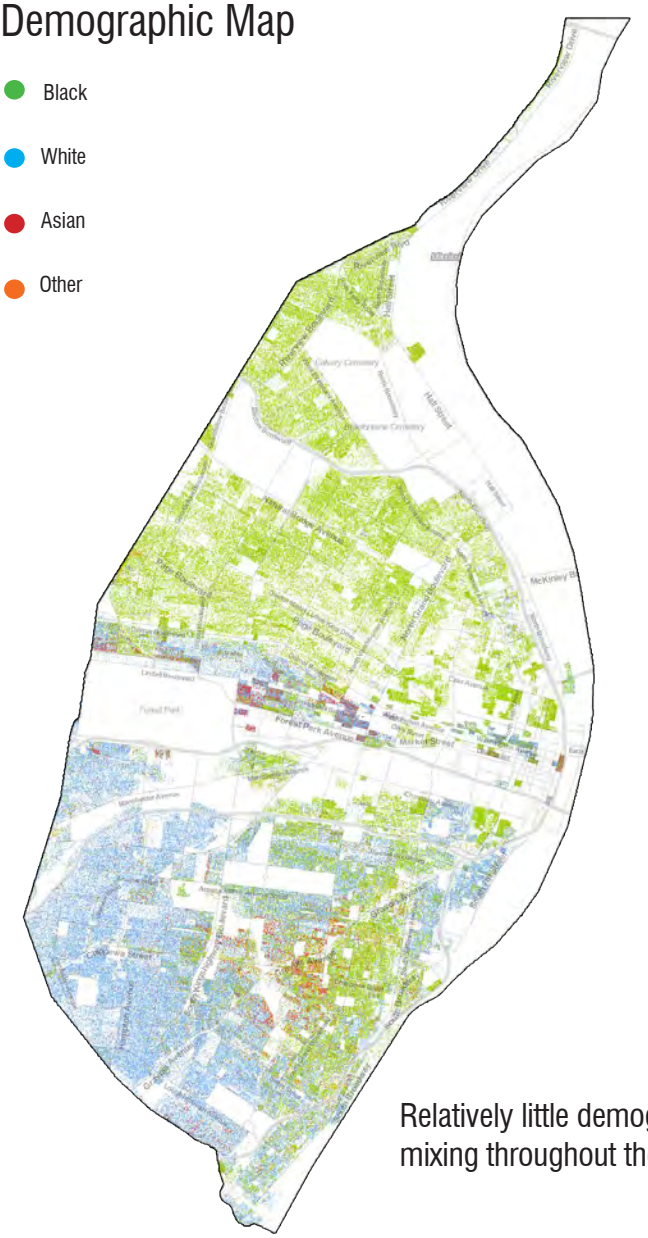
St. Louis, MO 	The cities listed below, along with St. Louis, are all classified as shrinking cities. However, the cities below no longer receive a hypersegregated designation, while St. Louis still does. What strategies of spatial development and land use have contributed to more demographic mixing?
Buffalo, NY 	• "Investment Corridors" identified • Commercial district types: mixed-use neighborhood commercial, mixed-use transit station area, mixed use downtown (inside and outside of CBD), mixed use medical
Pittsburgh, PA 	• Preliminary land development plans precede specially planned districts, which are created from a process of public involvement and participation • Comprehensive plans for "The Five Ways": Throughways, Pedestrian Ways, Transit Ways, Cycle Ways, Green Ways
Cincinnati, OH 	• "Through strategies like transit-oriented, mixed-use development and land recycling..." • "Develop an efficient multi-modal transportation system that supports neighborhood livability"
Washington D.C. 	• "Through strategies like transit-oriented, mixed-use development and land recycling..." • "Develop an efficient multi-modal transportation system that supports neighborhood livability"
New Orleans, LA 	• "Locate higher-density uses at existing and proposed transit stations and hubs for critical mass and locate new transit to serve higher density areas." • "Convert suburban style commercial strips and malls into walkable, mixed-use centers."

Sewing a Stronger North-South Connection in St. Louis

An opportunity to make a better connection between communities

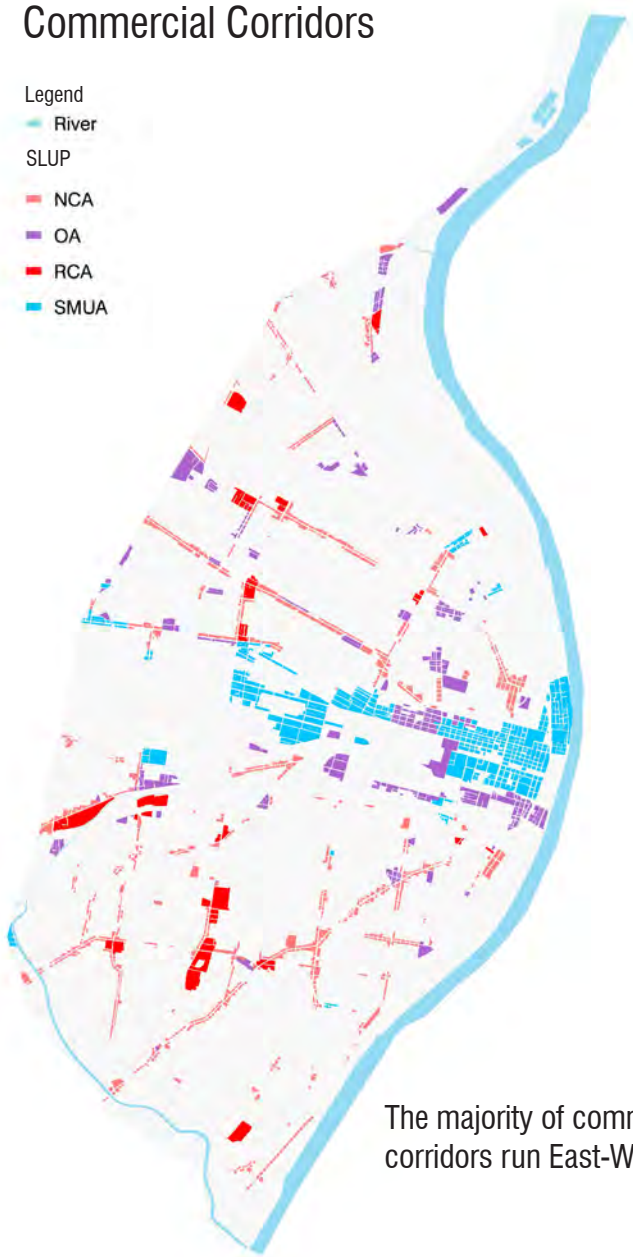
W3_CRB_DemographicDivide_MixedUseCorridor.PDF

Demographic Map



Relatively little demographic mixing throughout the city

Commercial Corridors



The majority of commercial corridors run East-West

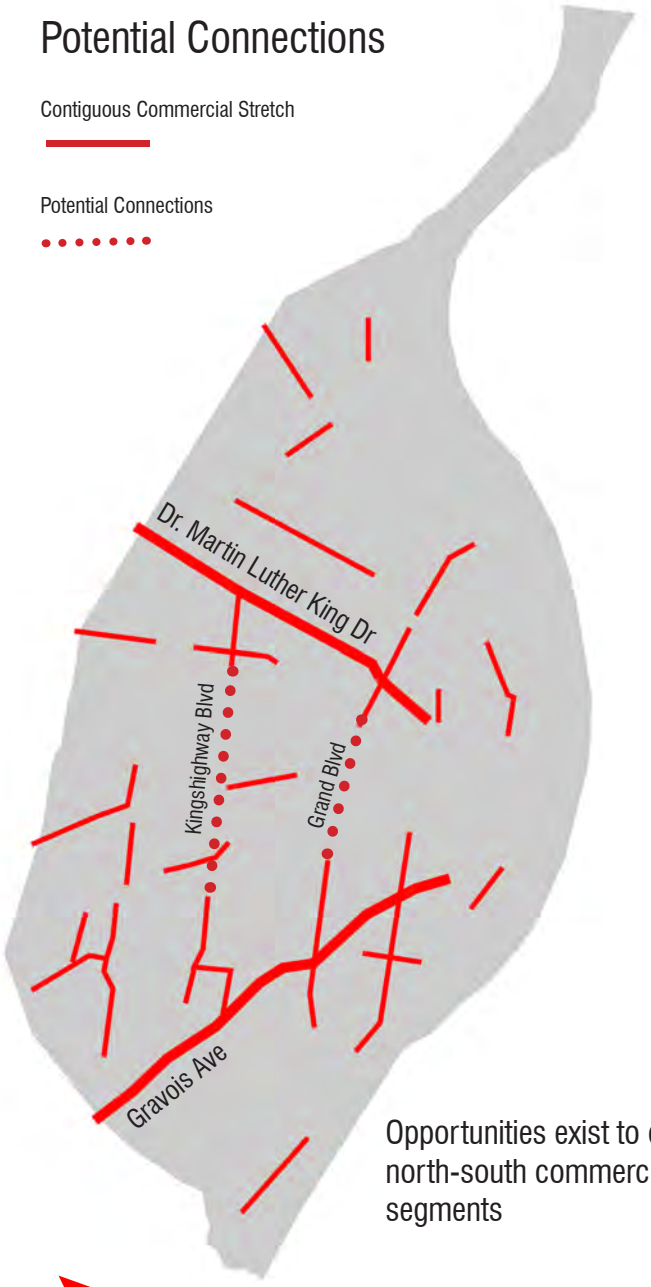
Figure 01.
Source: (Coopercenter.org) (ArcGIS. The City of St. Louis, MO. 2013)

Inquiry: What are the areas of greatest opportunity to provide a mixed-use North-South circulation corridor?
Key Extractions: St. Louis, Segregation, Mixed-Use Development, Transit Oriented Development, Shrinking Cities, Urbanization
Methodology: A demographic dot map of the city of St. Louis shows a clear racial divide between the north and the south, a divide that is further enforced by the infrastructural barriers that bisect the city. Strategically targeting north-south commercial corridors can provide guidance from which the city can channel investment. Mixed-use commercial corridors, as opposed to mixed-use areas have greater potential to be linked to transit-oriented development schemes, and can provide a framework from which density can spread.
Conclusions: There were two potential North-South connector streets that presented opportunity to become a mixed-use, multi-modal investment corridor: Kingshighway and Grand Boulevards. Kingshighway was not chosen because it is highly fragmented by the highway and railway infrastructure, and the intersection exists at a point where it splits, which widens the gap in the potential urban fabric. Grand Boulevard, on the other hand has great potential. There are two prominent parks that could serve as the anchor points to the investment corridor.

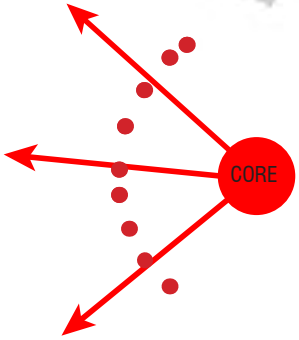
Potential Connections

Contiguous Commercial Stretch

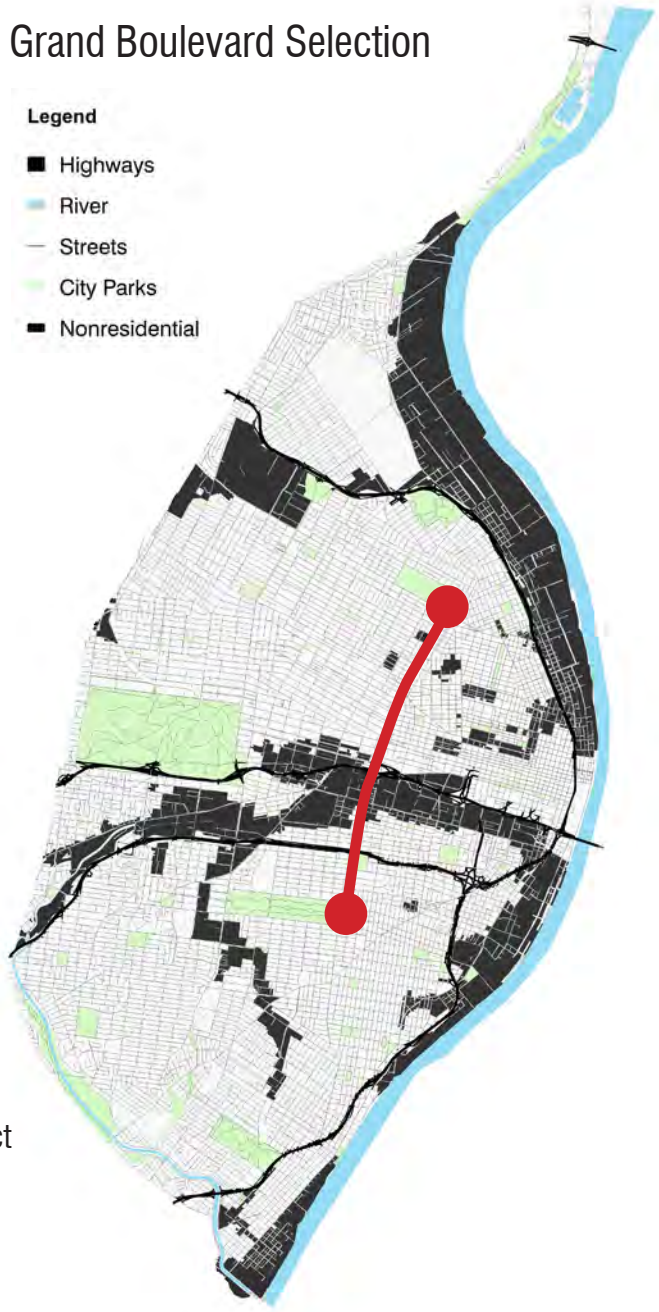
Potential Connections



Opportunities exist to connect north-south commercial segments



Grand Boulevard Selection



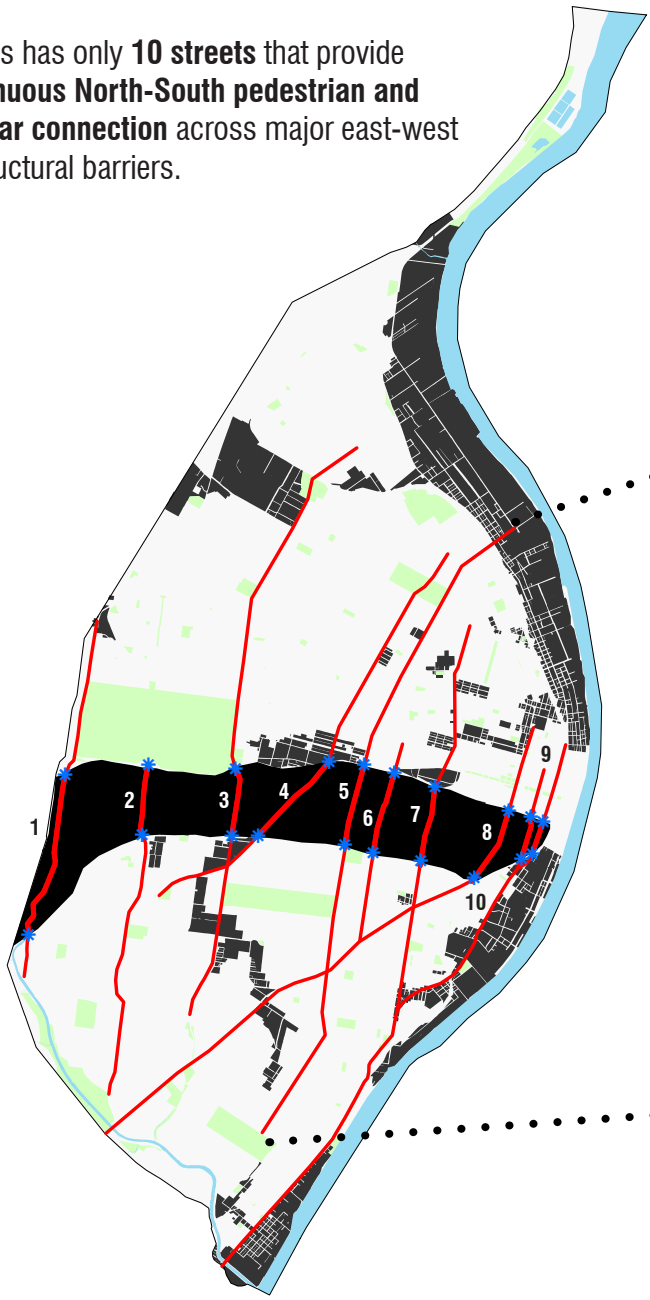
Grand Boulevard would be an ideal North-South mixed-use corridor because it is located at a pinch point in the railway corridor. Additionally, it traverses diverse ground with a mix of parks and unique urban character, and could link multiple nodes of interest/activity.

A Grand Vision for Grand Boulevard in St. Louis

A vibrant, mixed-use and transit-oriented corridor can better connect north and south St. Louis

W3_CRB_DemographicDivide_MixedUseCorridor.PDF

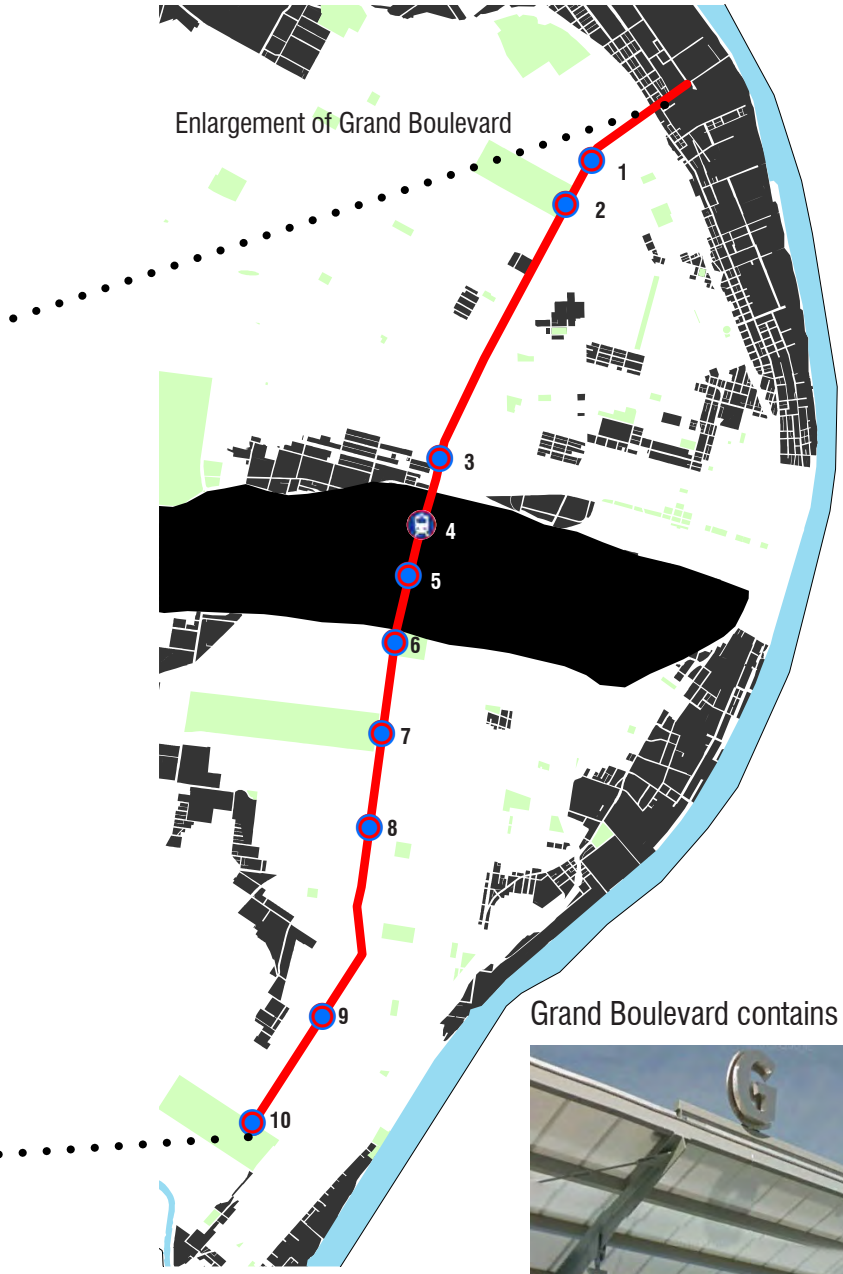
St. Louis has only **10 streets** that provide a **continuous North-South pedestrian and vehicular connection** across major east-west infrastructural barriers.



From West to East, the streets with the **strongest north-south connections** are:

1. McCausland Ave
2. Hampton Ave
3. S Kingshighway Blvd
4. S Vandeventer Ave
5. S Grand Blvd
6. S Compton Ave
7. S Jefferson Ave
8. S Tucker Blvd
9. S 7th St
10. S Broadway

Figure 02.
Source:ArcGIS. The City of St. Louis, MO. 2013) (Google Earth Streetview, 2015)
Inquiry: Which of St. Louis' 10 streets that have strong north-south connections would best serve a mixed-use and transit-oriented corridor?
Key Extractions: St. Louis, Segregation, Mixed-Use Development, Transit Oriented Development, Shrinking Cities, Urbanization
Methodology: In order for the city of St. Louis to have a stronger connection between the people and places in the northern and southern portions of the city, it seems necessary to identify the best possible areas where these connections can form. There are many points along each of the infrastructural barriers (the highways, and railway corridor) that allow movement across them. However, there are only 10 streets that have a continuous connection across all three. These ten streets were narrowed down to two streets, Kingshighway and Grand, as the best possible candidates for a mixed-use north-south commercial corridor. Grand was selected for its diverse urban character and because it reaches into the hearts of the residential zones in the north and south of the city. There are over 10 major place connections along Grand.
Conclusions: Grand Boulevard in St. Louis, Missouri would be an ideal place to study the possibility of implementing a mixed-use and transit-oriented corridor. This corridor could bridge the gap between two seemingly separate areas of the city, and help unify communities in the north and the south.



From north to south, **Grand Boulevard connects these major destinations in the city:**

1. St. Louis Public Library
2. Fairground Park
3. St. Louis University
4. Metrolink Station Grand Blvd.
5. St. Louis University Medical Center
6. Compton Hill Resovoir Park
7. Tower Grove Park
8. Schnucks grocery store
9. St. Mary's High School
10. Carondelet Park

Grand Boulevard contains an existing as well as a proposed Metrolink rail station

(Google Earth Streetview, 2015)

Cities of Similar Size Have More Rail Transit Lines

St. Louis may need more transit rail lines in order to become a more sustainable city.

W3_HA01_NO_RailTransit.PDF

St. Louis, Missouri
Size: 66.2 square miles
Population: 319,365 as of 2010 Census
Population Density: 4824 people / square mile

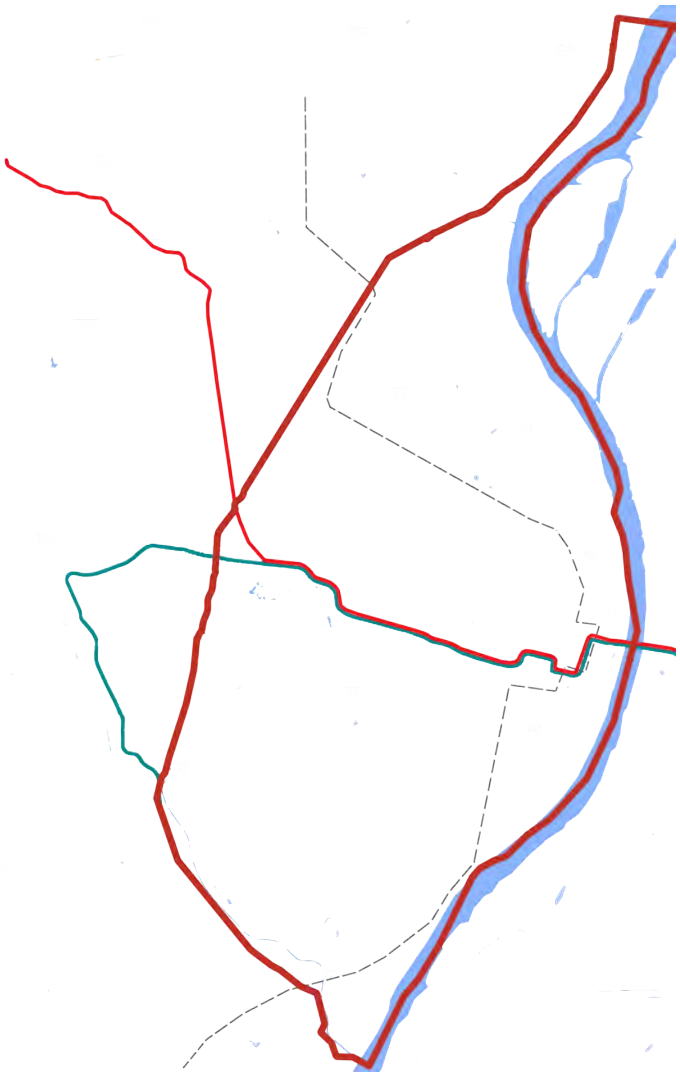


Figure 01. St. Louis MetroLink Lines and Proposed Line
Source: City of St. Louis, Missouri 2015

Washington D.C.
Size: 68.3 square miles
Population: 601, 222 as of 2010 Census
Population Density: 8803 people / square mile

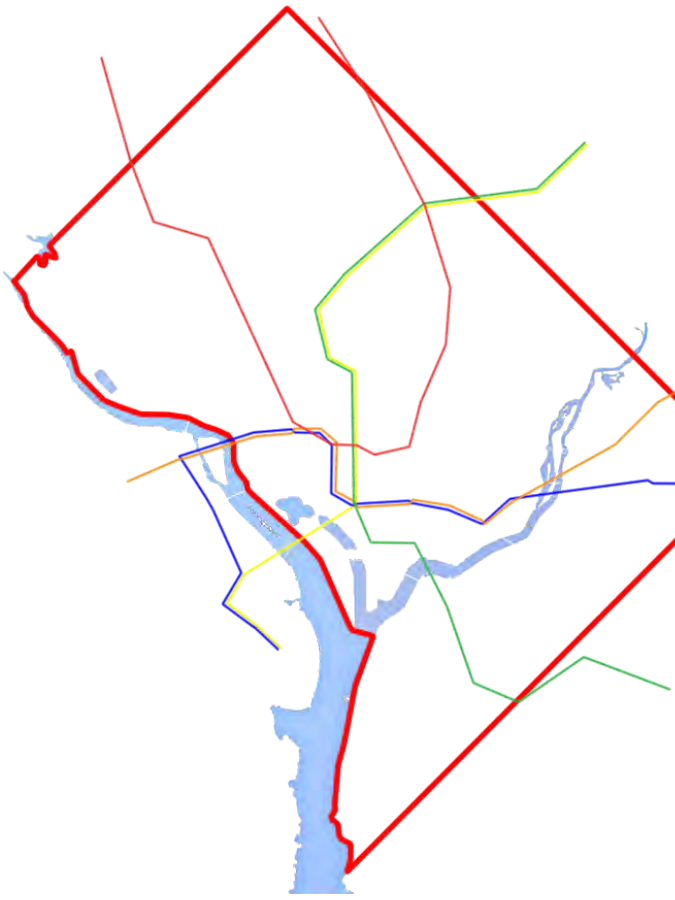


Figure 02. Washington D.C. Metro Lines
Source: Google Maps 2015

Inquiry: What kind of transit rail systems do cities similar in size to St. Louis have? What kind of system should St. Louis be thinking about for the future?
Key Extractions: Light Rail, Transit,
Methodology: Using Google Maps to look at other cities' sizes and transit systems, the maps were edited in Adobe Photoshop to give a clear visual of the transit rail lines in each city.
Conclusions: People at the Strong Cities, Strong Communities workshop (Section 1.3, Figure 1.3.5) expressed a 20-year goal of having a more walkable, transit oriented city. Other cities in the United States have different social and economic situations, but by looking at cities that are close in size to St. Louis, multiple rail transit lines going in multiple directions support a growing and densified population. Comparatively, St. Louis is population depleted and shrinking. It is less dense than ever in its history. Even so, an East/West line and a North/South Line is planned for the future to supplement the existing Metrolink system.

Boston, Massachusetts
Size: 89.6 square miles
Population: 617,594 as of 2010 Census
Population Density: 6893 people / square mile

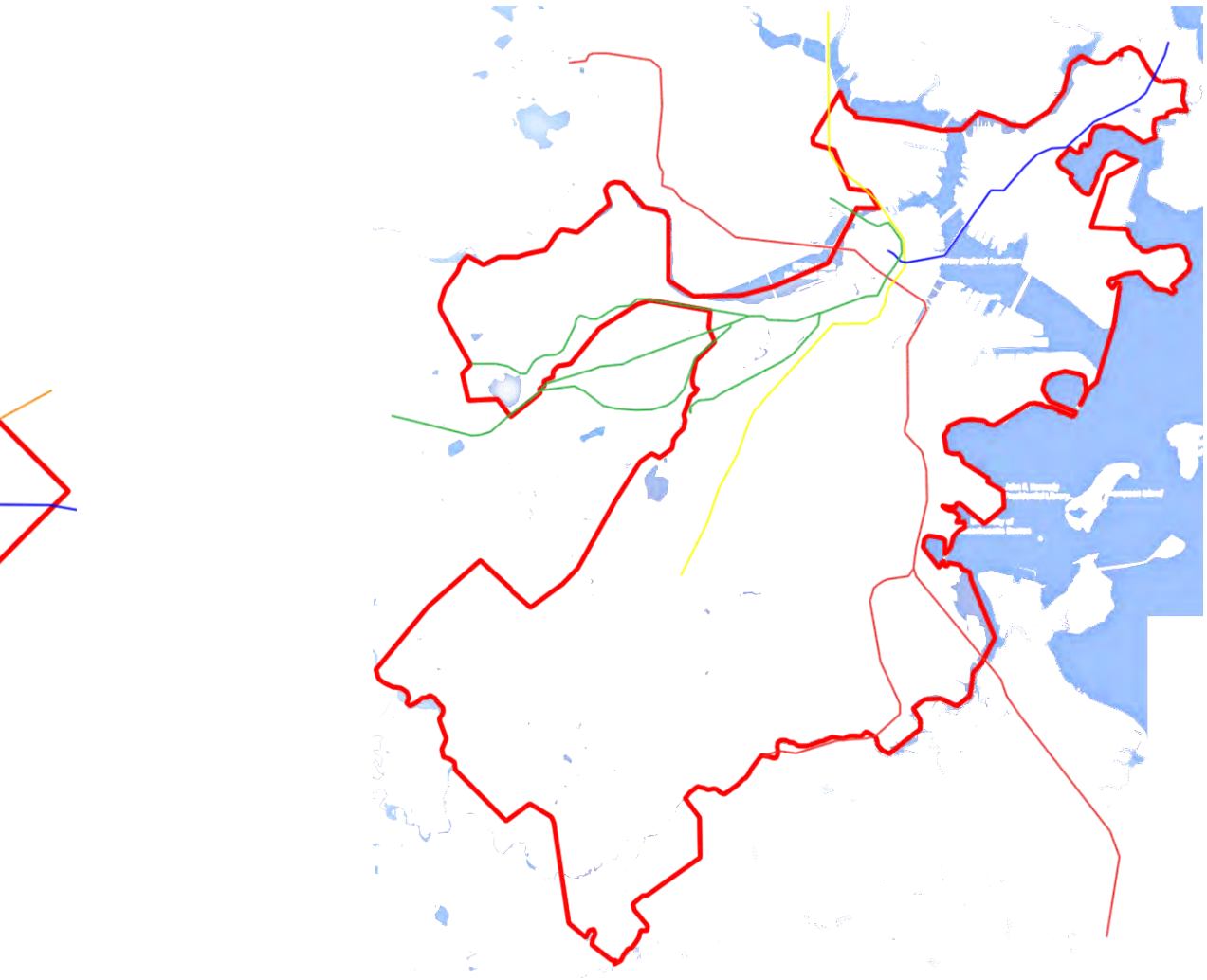


Figure 03. Boston MBTA Lines
Source: Google Maps 2015

Maps Not to Scale

Legend

- City Boundary
- Rail Lines
- Proposed St. Louis Line
- Water

Various Factors Contribute to Diverse Urban Areas

Percent of family householdsin diverse urban areas based on Census data.

W3_KB04_4K_FactorsofDiversity.PDF

58%

Delmar Loop
Restaurant District
Mixed-use Buildings

47%

Tower Grove South
Variety of Housing Types

50%

Dutchtown South
Successful Eateries

Figure 01. Diversity Factors
Source: demographics.coopercenter.org
Photo images: See Critical Map References section,
Inquiry: What factors contribute to highly diverse neighborhoods?
Key Extractions: Diversity, Housing Type, Eateries, Universities, Active Streets, Mixed-Use Buildings
Methodology: The Racial Dot Map provided a base map where I identified clusters of high density and Google searched images from those districts.
Conclusions: This map calls out factors that contributed to areas of high diversity in both social and economic ways. Some of the factors include: types of housing units, mixed-use buildings, active streets, successful eateries, and nearby universities. Many of these diverse neighborhoods have fewer families based on the Census Data report, suggesting that young adults and/or empty nesters are occupying these districts. This map could encourage future investment in developing highly diverse, family oriented neighborhoods. It also provides examples for successful diverse districts.

Classification Map

Old North St. Louis
Mixed-use Buildings
Historical District
37%

Skinker Debaliviere
Washington University
Student Living
33%

Grand Center
St. Louis University
Student Living
1%

Central West End
Mixed-use Buildings
Restaurant District
25%

Shaw Neighborhood
Mixed-use Buildings
30%

Cherokee Street
Active Street
38%

Legend
- African Americans
- Asians
- Caucasians

53% Percent of family housing units

Dense Areas of Diversity Located in Downtown St. Louis and Directly South of Delmar Blvd.

Few children 18 years of age and younger live directly south of Delmar Blvd.

W3_KLB01_6K_DiversityDensity.PDF

Racial Population Density

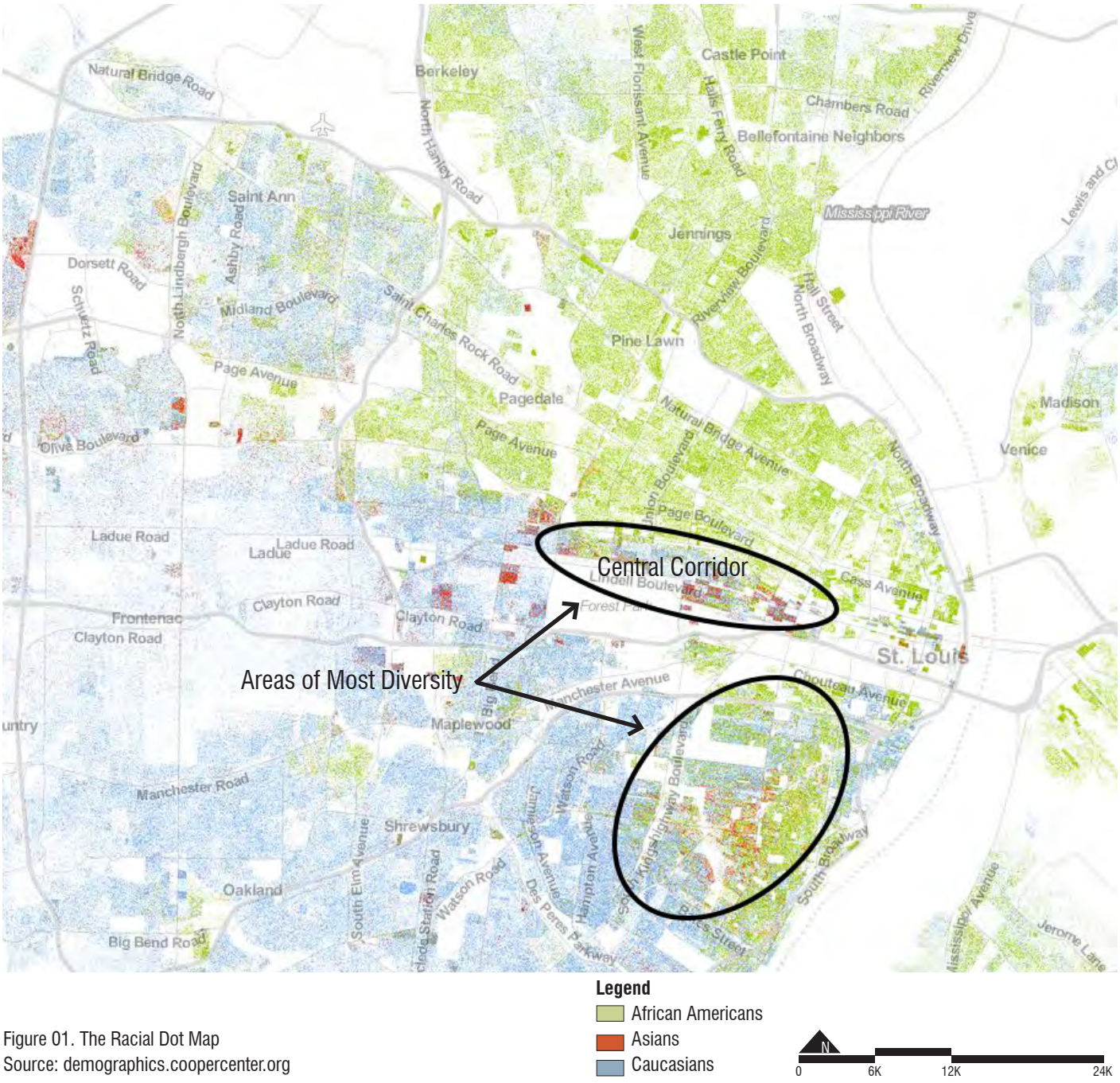
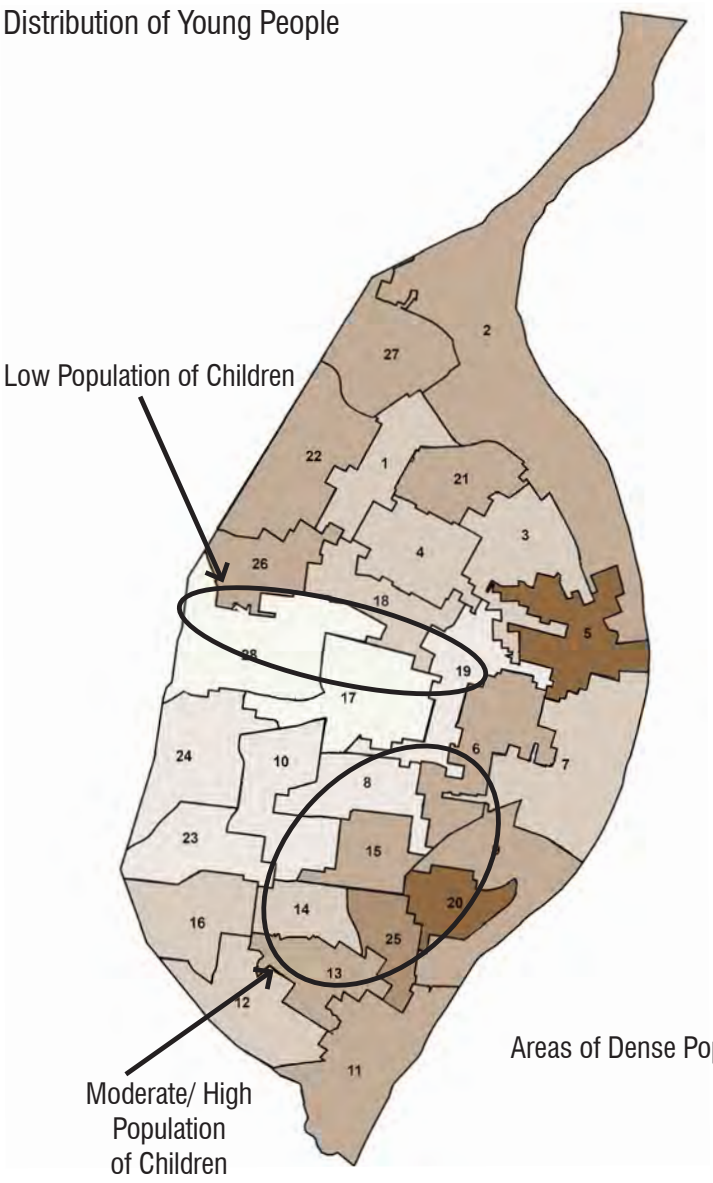


Figure 01. The Racial Dot Map
Source: demographics.coopercenter.org

Inquiry: Where is there the most diversity in the city of St. Louis and how does thata affect future plans for the city?
Key Extractions: Racial Diversity, Population Density, Younger Generation Population Density
Methodology: Information gathered from the Racial Dot Map from the University of Virginia was used as a baseline for Figure 01. I further located areas of high diversity, which included high density. Figure 02 was developed based on the population of children 18 and younger, information gathered from the St. Louis Census records. A gradation of green was then applied to the number of people in the demographic based on the population in each ward. Figure 03 is specifically population density based on block groups.
Conclusions: There are two areas in St. Louis in which a high diversity is present, that occurs in the Southeast part of the city and just south of Delmar Blvd. There are few children in the area south of Delmar Blvd., suggesting that there are fewer families in this area and more singles, couples, and/or empty nesters. Both of these areas have a high population density.

Distribution of Young People

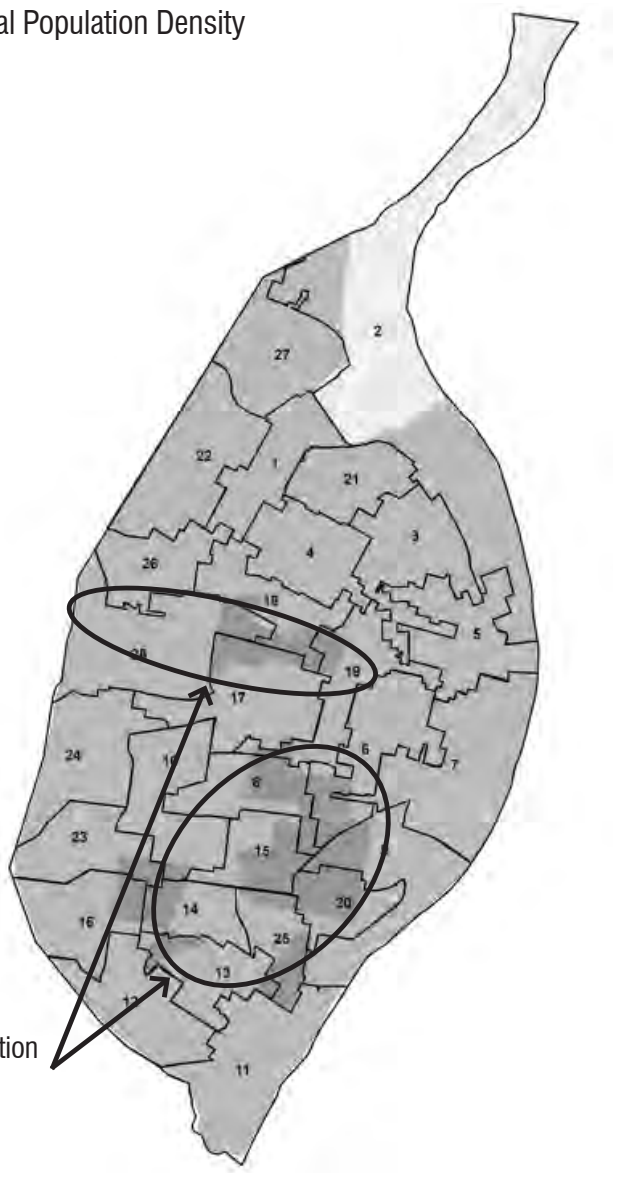


Less than 1,499
1,500 - 1,999
2,000 - 2,499
2,500 - 2,999
3,000 - 3,499
More than 3,500

Figure 02.18 Younger Population Density
Source: St. Louis Census Records

N
No Scale

Total Population Density



101 - 1,000
1,001 - 10,000
10,001 - 25,000

Figure 03. Population Density
Source: St. Louis Census Records

N
No Scale

Non-profit Organizations Have Had a Major Impact on the City

by developing, redeveloping, and garden leasing vacant parcels.

W2_HA01_NO_NonProfitClassification.PDF

Organization: Land Reutilization Authority
Type of Work: Receives tax delinquent property. Works with the St. Louis Development Corporation.

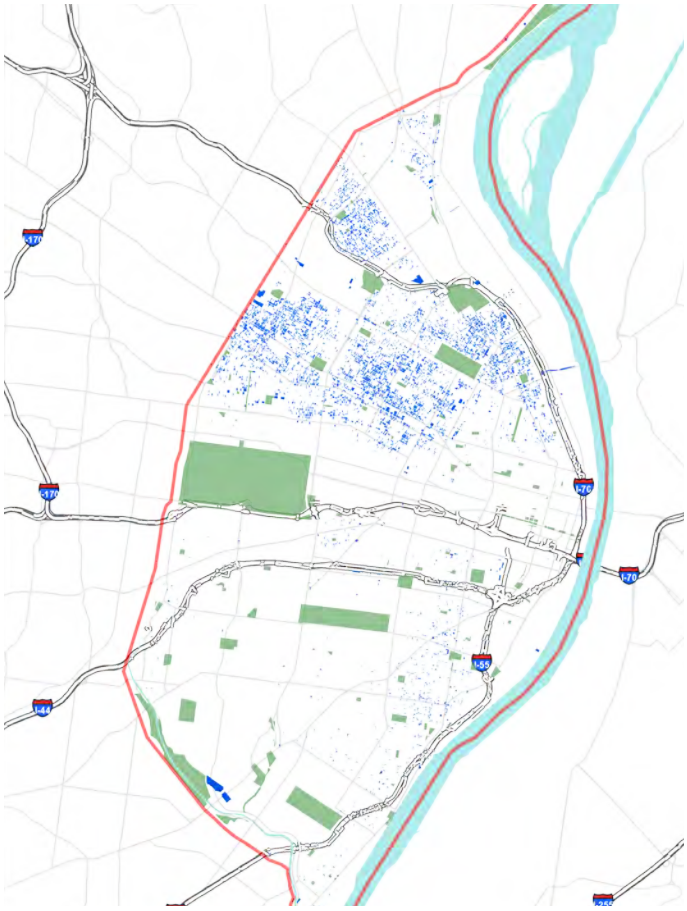


Figure 01. LRA Owned Parcels
Source: City of St. Louis, MO https://www.stlouis-mo.gov/government/departments/sldc/boards/Land-Reutilization-Authority.cfm

Organization: RISE
Type of Work: Receives tax delinquent property. Works with the St. Louis Development Corporation.

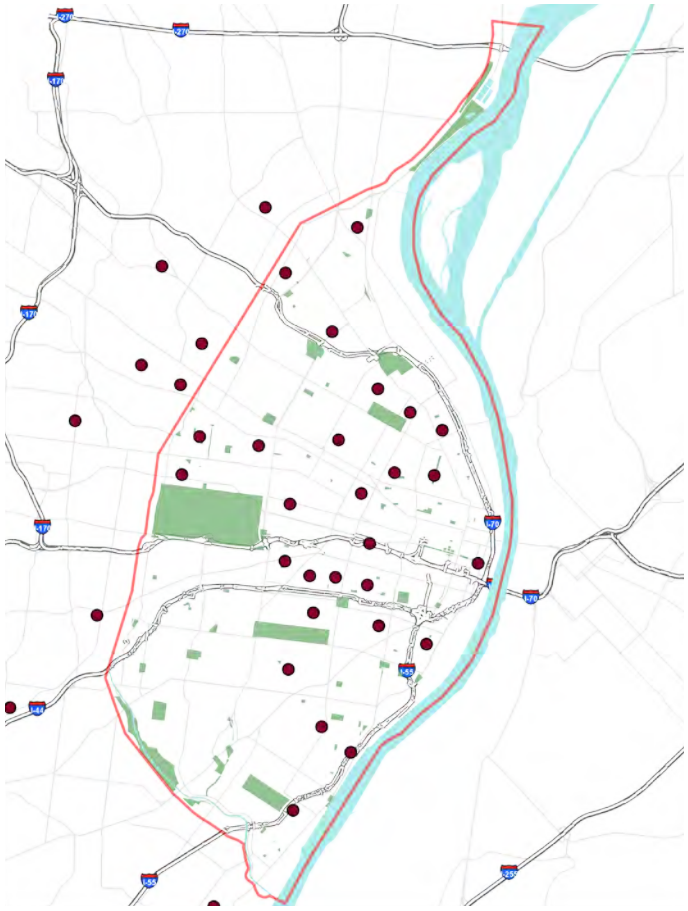


Figure 02. Rise Development and Investment Projects
Source: City of St. Louis, MO and http://www.risestl.org/results/neighborhood-revitalization/

Inquiry: Where is there work that has been done on vacant properties? What organizations are doing them?
Key Extractions: Non-Profit, Development, St. Louis, LRA Parcels, Brownfields
Methodology: After locating the LRA owned properties in ArchGIS and locating development and redevelopment projects done by non-profit groups in St. Louis via Internet research, and maps were made using ArchGIS and Adobe Photoshop for each Project Program and compared to each other.
Conclusions: A lot of development has taken place in Northern St. Louis, and most was done by non-profit groups. The LRA owns thousands of vacant parcels that are an opportunities for development of community gardens, public and civic spaces, and affordable housing. These organizations have done work throughout St. Louis, and there seems to be plenty of work being done in areas that need more development.

Organization: St. Louis Brownfield Program
Type of Work: Works with the St. Louis Development Corporation and LRA to develop vacant parcels deemed as contaminated.

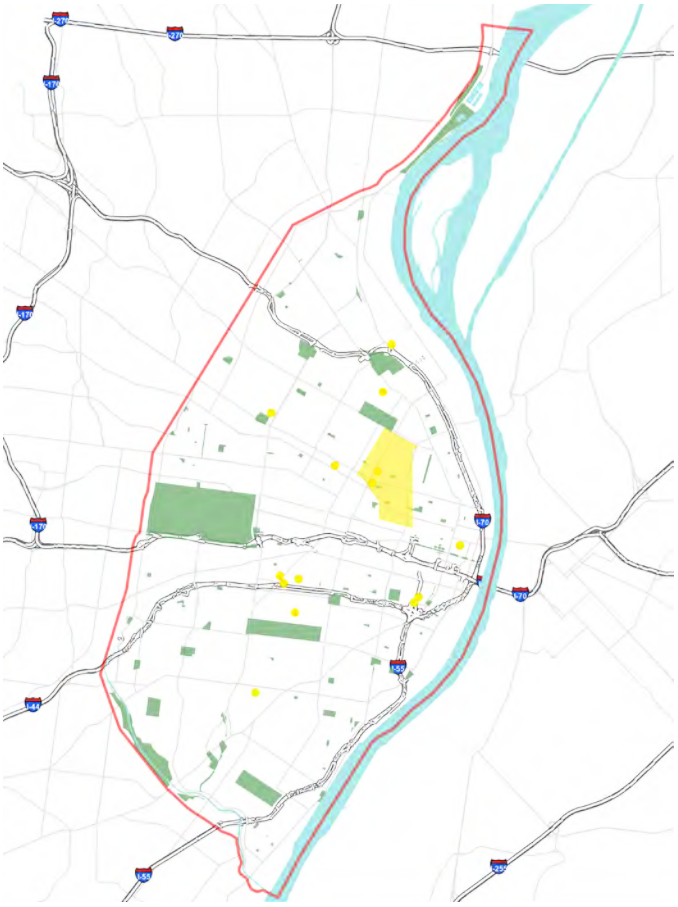


Figure 03. Brownfield Program Redevelopments
Source: City of St. Louis, MO https://www.stlouis-mo.gov/government/departments/sldc/brownfields/

Organization: Multiple
Successful Developments that have contributed to the economic and social growth of an area in St. Louis.

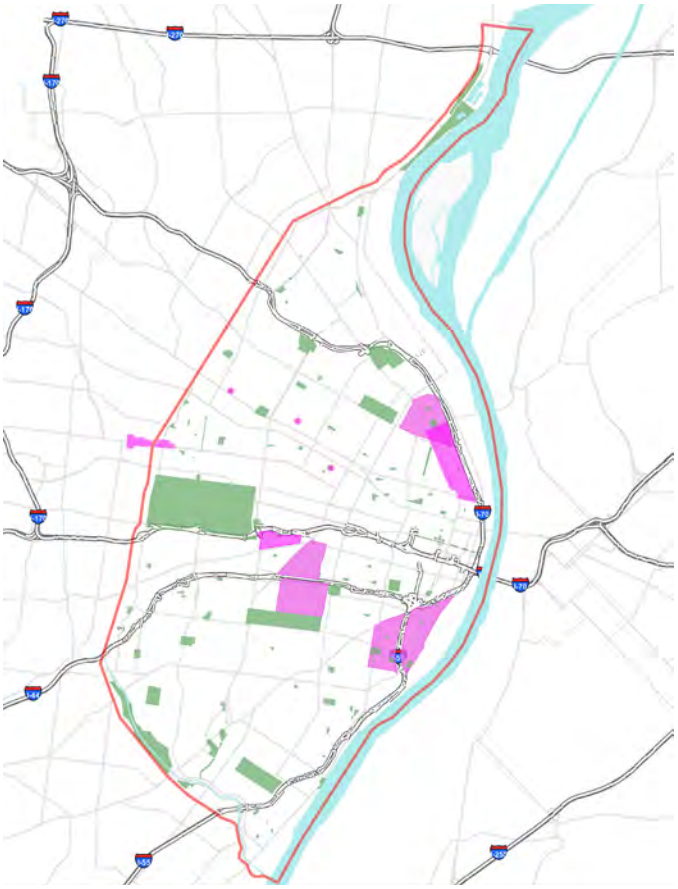


Figure 04. Successful Development Areas
Source: City of St. Louis, MO and Google Maps 2015

Legend

- Water
- Parks
- LRA Parcels
- RISE Projects
- Brownfield Projects
- Successful Developments

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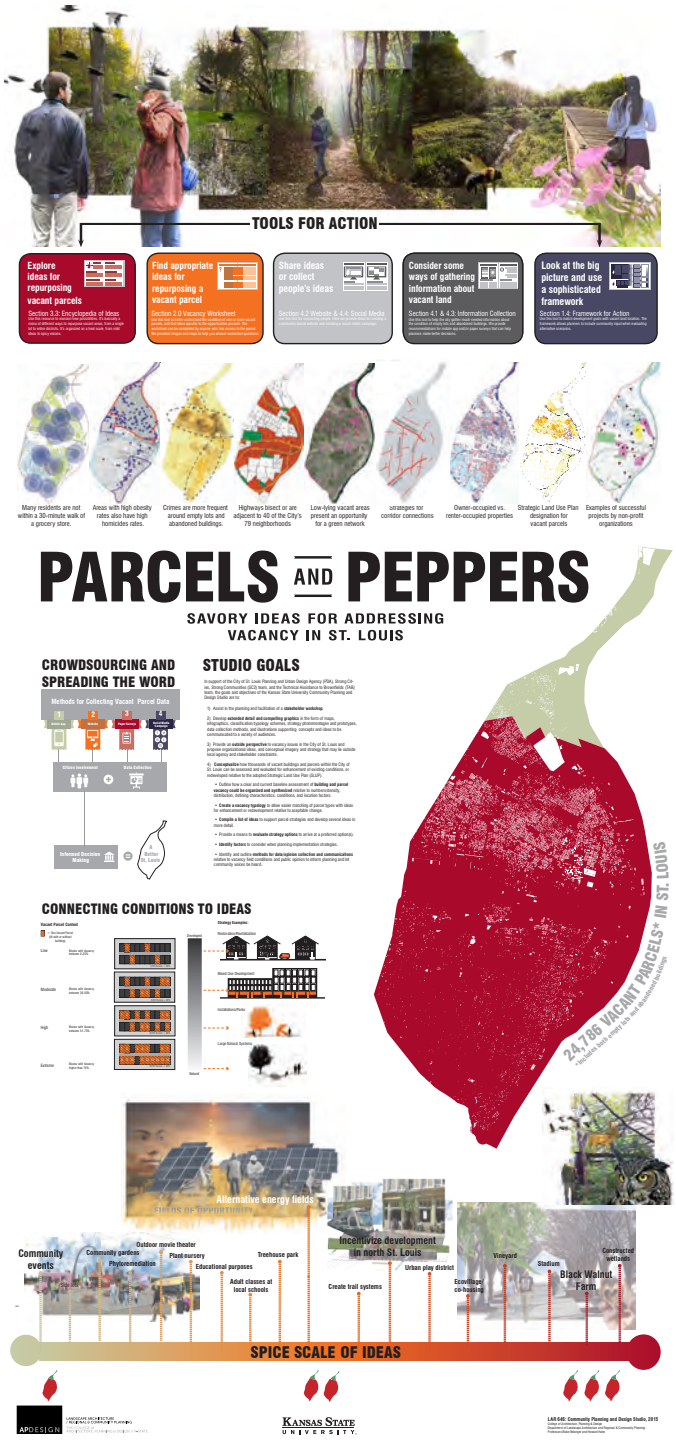
April Ford Griffin
Executive Director, Affordable Housing

Jeffrey Boyd
Alderman, Ward 22

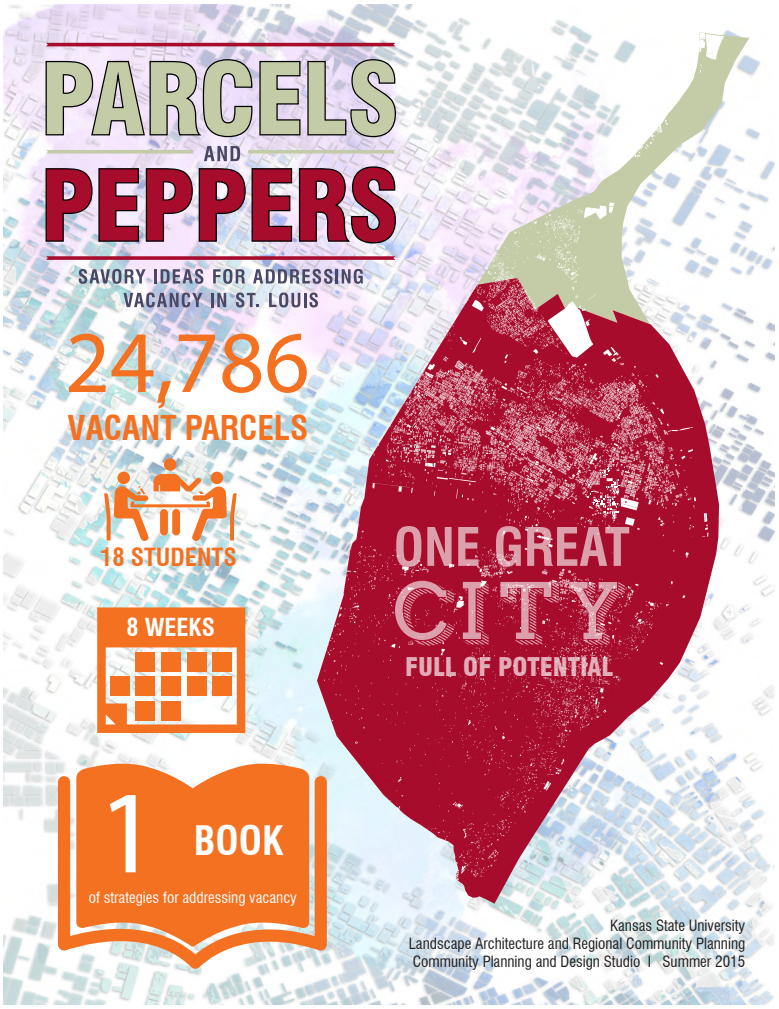
Stephen Acree
President of RISE (Rise acts as both a developer and a development consultant, utilizing a proven strategy to catalyze the neighborhood revitalization process)

POSTER

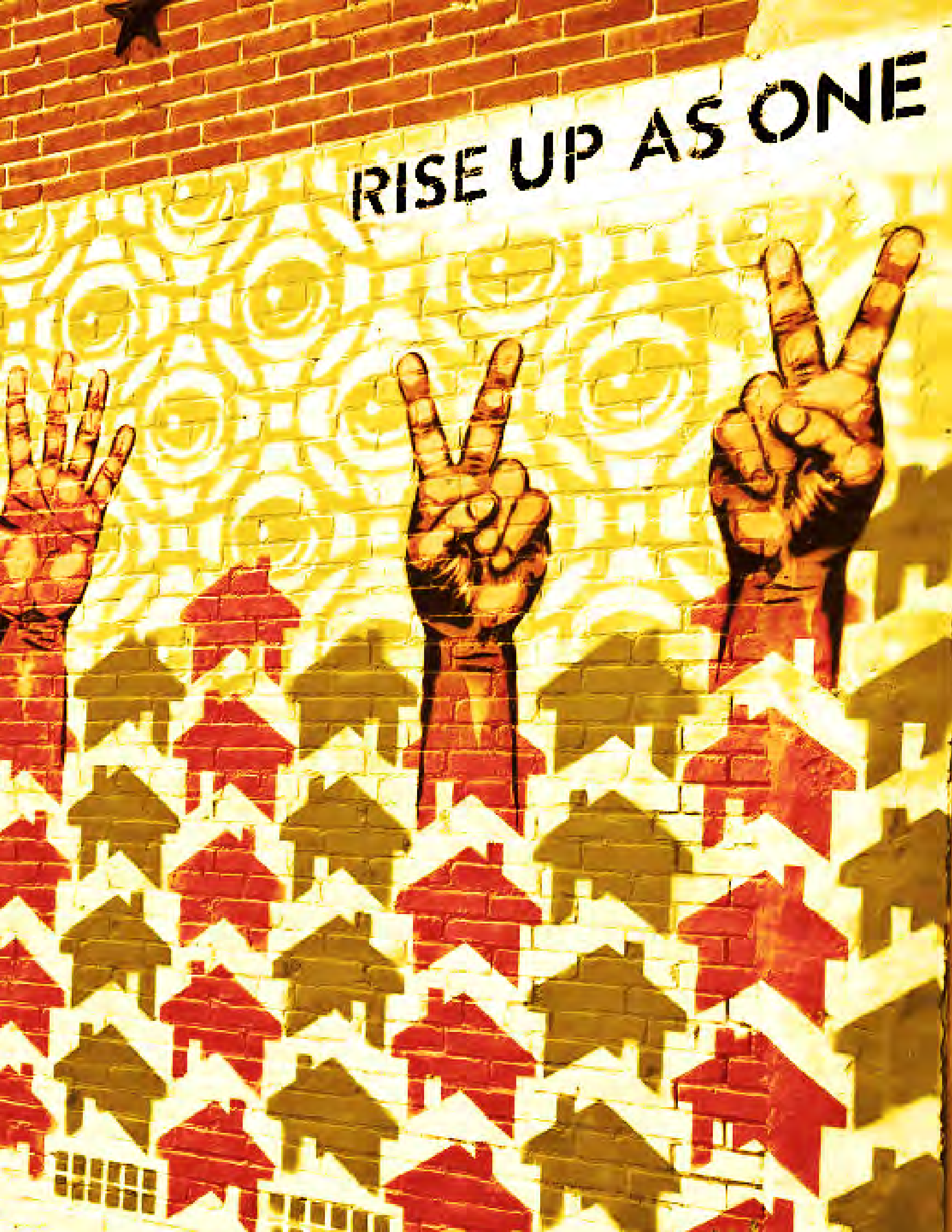


Poster 36-inch by 72-inch poster promoting the ideas found in the Parcels and Peppers book, as well as the book itself, for hanging in the Planning and Urban Design Agency office, in the College of Architecture, Planning, and Design at Kansas State University, and in other locations. *(Designed by Katelyn Rose and Kelsey Steward)*

FLYER



Flyer 8.5-inch by 11-inch handout advertising the Parcels and Peppers book and ideas. *(Designed by Conner Bruns)*


RISE UP AS ONE

THE AUTHORS

Students of Kansas State University's Community Planning and Design Studio Back row, from left to right: Tyler Swehla, Morgan Taylor, Kelsie Shy, Emily Jagels, Taylor Allen, Abigail Fiala, Sarah Jackman, Katelyn Rose, Laura Vallo, and Lindsay Stucki. Front row, from left to right: Jonathan Knight, Tyler Tucker, Kelsey Steward, Timothy Kellams, Kaitlin Bernal, Conner Bruns, Haley Armstrong, and Neal Heidt. *(Photo credit: Ethan Moulder)*

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