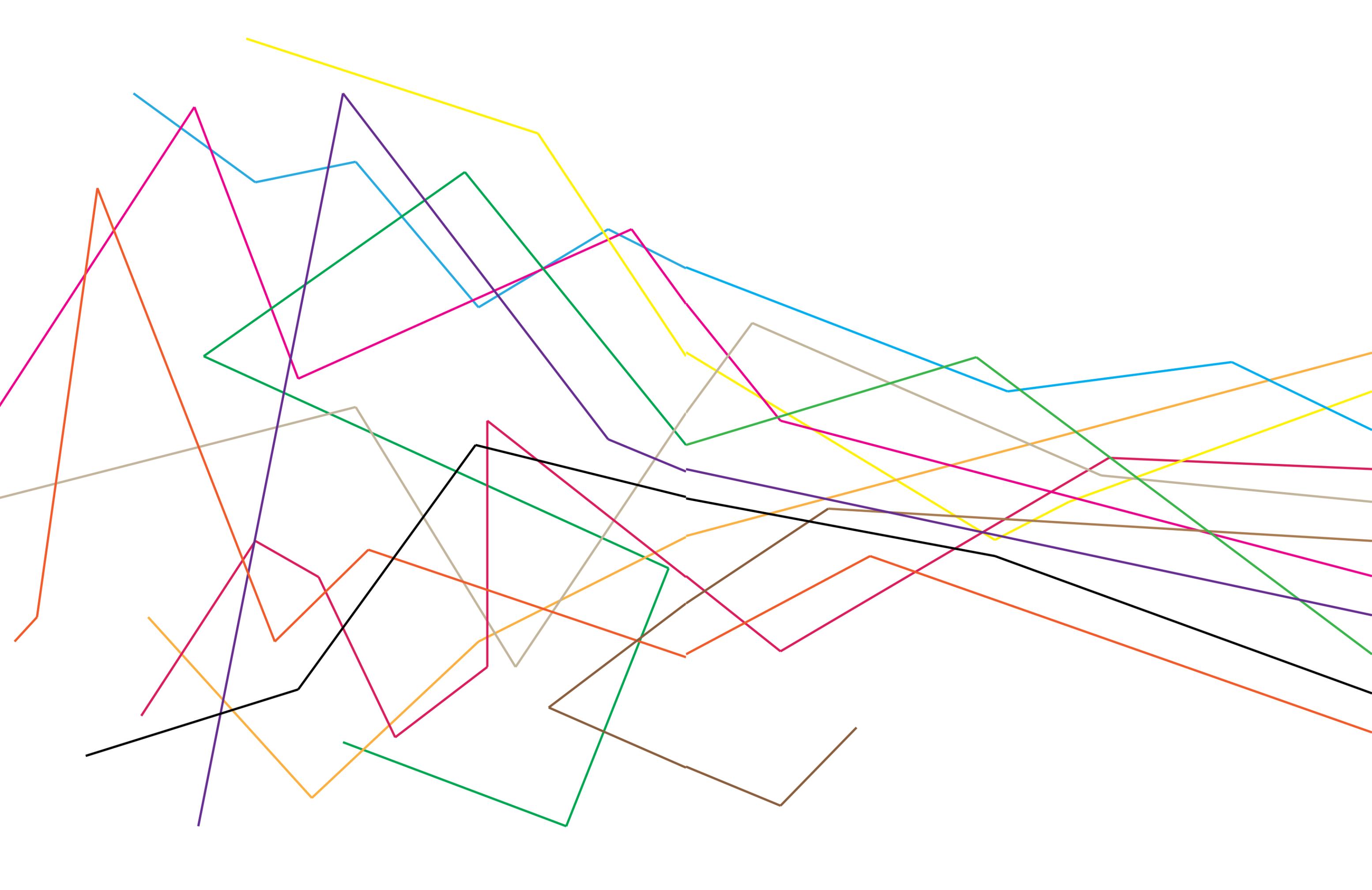




# SHREWSBURY

A GUIDE TO TRANSIT ORIENTED DEVELOPMENT AT THE SHREWSBURY METRO STATION



# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>7</b>
<b>SITE ANALYSIS</b>	<b>13</b>
<b>SOCIAL CAPITAL</b>	<b>27</b>
<b>DESIGN PROPOSAL</b>	<b>41</b>
<b>POLICY RECOMMENDATIONS</b>	<b>55</b>
<b>SUMMARY</b>	<b>71</b>
<b>APPENDICES</b>	<b>75</b>

# INTRODUCTION

## I

The Shrewsbury MetroLink station sits in the crossroads of South St. Louis City and St. Louis County. The stop is in close proximity not only to the municipalities of St. Louis and Shrewsbury, but also Webster Groves, Mackenzie, and Maplewood. Because of its convenient location in South St. Louis County and its status as the south-easternmost stop on the MetroLink's Blue Line, the stop enjoys high ridership, both during the work week and during special events. Though the stop is well utilized and is in that way successful, it lacks amenities that would make the stop a destination rather than a gateway to other parts of the region. **This report analyzes the station in its current state, along with the strengths, opportunities, and challenges that exist in developing the site, all through the lens of transit-oriented development.**



Transit-oriented development (TOD) is generally defined as mixed-use, higher-density development within walking distance of a transit stop. Studies reveal that economic development, personal finance, and quality of life all benefit through TOD's pedestrian and transit focus that reduces automobile dependence.

This project proposes TOD at the Shrewsbury Metro station in St. Louis, Missouri.

The Shrewsbury/I-44 Metro station serves as the southwestern terminus of MetroLink's Cross County Extension. The station straddles the political boundary between the cities of St. Louis and Shrewsbury. Metro's property at the Shrewsbury station includes the elevated MetroLink tracks, the light rail platform, a bus loop, and significant parking. The station is landlocked

by elevated freight train tracks to the West, Interstate 44 and Ameren high-tension wires to the North, the River des Peres to the East, and Lansdowne Avenue and City park land to the South. Assets include higher-than-expected ridership, an existing diversity of area land uses, the expanding Great Rivers Greenway River des Peres Trail, stable neighborhoods, and nearby highway and freight train access.

Due to the current economic climate and St. Louis's status as a slow-growth market, this proposal proceeds in phases. The following material sets out an overall conceptual vision to serve as a framework for future development by public and private actors collaborating to create a strong, healthy community around the Shrewsbury station. This project: 1) sets out project objectives, 2) analyzes the existing conditions at the site, 3) considers social capital in strategy implementation, 4) lays out design and environmental issues, and 5) provides policy considerations and recommendations.

The proposal begins by providing design concepts that should figure into all phases, including public streetscape, private industrial, and public-private partnership development. The first phase is a Metro-owned building to serve various uses and to be constructed at the Shrewsbury station. The second phase replaces less intensively used industrial and office structures west of the station with a light industrial assembly plant to provide employment and activity. The third phase examines the River des Peres, proposing plantings and channel improvements to provide accessibility to the river by pedestrians at most times of year, while recognizing environmental benefits of water management. The fourth phase considers housing by replacing aging, simple, single-family homes with desirable, dense complexes in the Wabash/Lansdowne/Bancroft area. Also in Phase IV, existing apartment complexes to the south are renovated and repurposed with a bike/pedestrian/transit focus.

These phases may or may not proceed in any particular order, however the order provided intends to construct public infrastructure as a catalyst for private industrial and housing development. Longer-range projects such as the South County Connector, Army Corps of Engineers improvements to River des Peres, and trail extensions by Great Rivers Greenway suggest a wait-and-see approach for practical and financial purposes at several proposal phases.

### Goals and Objectives

Generally, TOD has at its core three separate but interrelated goals. First, development around transit facilities characterized by compact design and increased density. Second, mixed land uses including residential and retail development. Third, pedestrian-oriented design and streetscapes that encourage decreased reliance on automobiles. Together these goals take advantage of existing transit infrastructure to promote local, sustainable growth, local economic develop-

ment and increased quality of life for area residents.

Currently, the Shrewsbury Metro station and the surrounding neighborhoods do very little to encourage these general goals of TOD. This strategic development plan, however, shows that TOD around the Shrewsbury Metro Station is both desirable and achievable. The proposal takes into account the current political, economic, and legal realities and puts forth an implementable framework for TOD at the Shrewsbury Metro station.

More specifically, the goals of this project are threefold. First, to make the highest and best use of the land around the Shrewsbury Metro station so as to encourage increased ridership at the station and reduce automobile dependence. Second, to coordinate the various residential and commercial property owners and stakeholders in the area, to develop a unified, cohesive vision for the proposal. Third, to generate greater economic activity at the station by enhancing the surrounding environment with a mix of higher density uses.

The overall vision of this project is to create a complete community around the Shrewsbury Metro station, with shops, offices, and residential structures within walking distance of the station, thereby improving the quality of life of nearby residents. Ultimately, this project seeks to connect the residents of Shrewsbury with the greater St. Louis metropolitan region and enhance property values and stability in Shrewsbury.

# SITE ANALYSIS

## S

To understand the given study area around the Shrewsbury Metro transit site, careful consideration was given to demographic trends. “Demographics are the statistical data of a population, especially those showing average age, income, education, etc.”<sup>1</sup> Demographic analysis can uncover spatial and economic trends that can be used to prioritize investment decisions. In the study of the Shrewsbury site, the demographic analysis began with the year 1940 and concluded with information from the recently compiled 2010 census survey. This research has been supplemented with a spatial analysis. This spatial analysis focused on identifying what services and opportunities are provided by the existing natural and built form of the area. These analyses have highlighted certain trends that have remained constant in the Shrewsbury study area and the surrounding census tracts as well as uncovered other categories that have continually been inconsistent.



The Shrewsbury Metro Station is located along the River des Peres at the St. Louis City and Shrewsbury City borders. The station site is situated north of Lansdowne Avenue, east of the River des Peres, south of Interstate 44, and west of an existing railway. This station is the terminus of the Metro Cross County Line and its largest ridership occurs during downtown events including baseball and football games, as well as other cultural activities such as the annual balloon races in Forest Park.

While the station site is our primary focus, our scope of work has been roughly constrained by a quarter mile study radius. The boundaries of this area are Shrewsbury Avenue to the west, Interstate 44 to the north, Wabash Avenue to the east, and Weil Avenue and Chippewa Street to the south. This study area includes the Shrewsbury Metro Station, Shrewsbury City Hall and Police Department, and the Shrewsbury Aquatics Center. Within this study

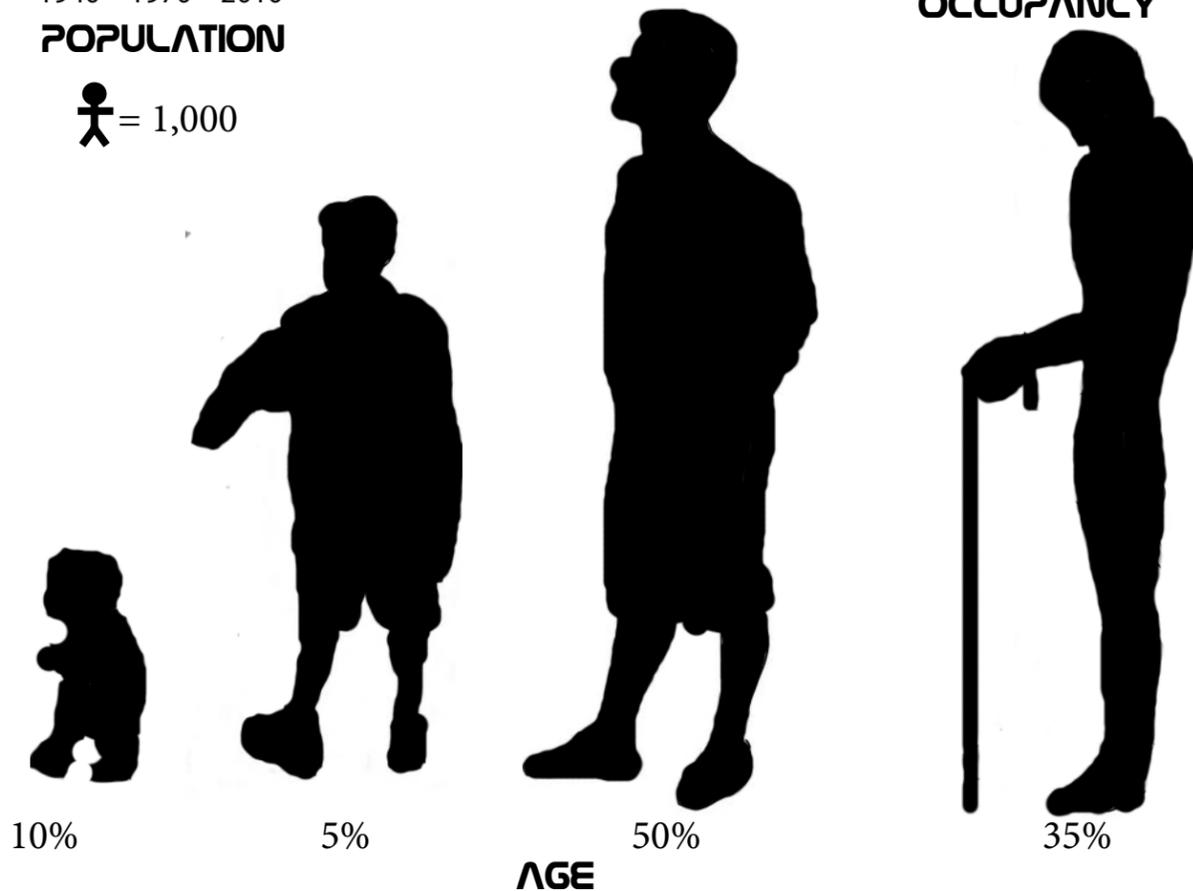
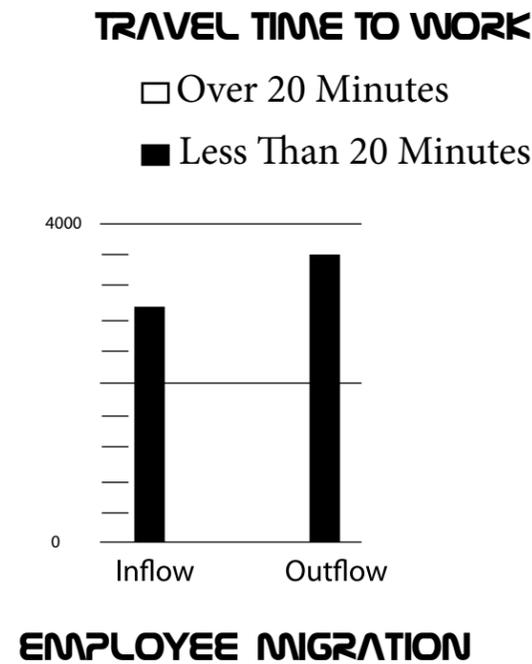
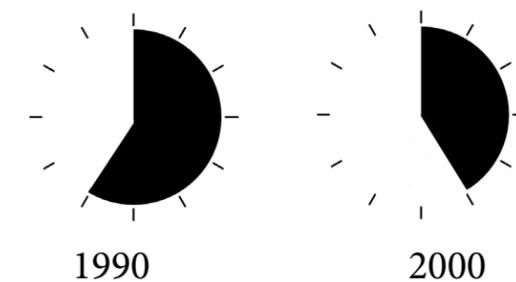
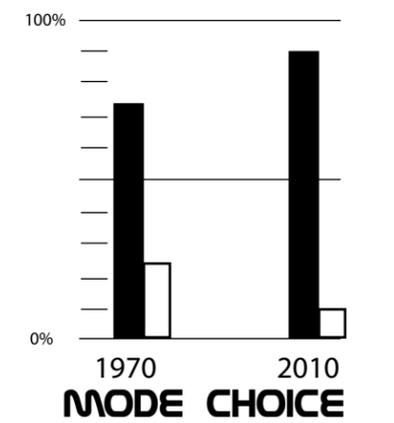
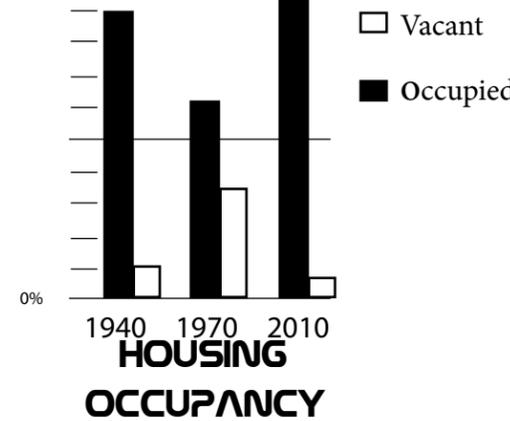
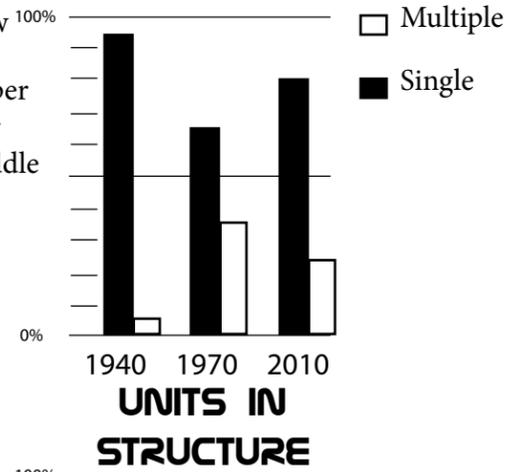
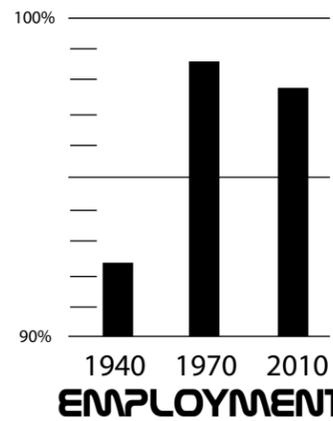
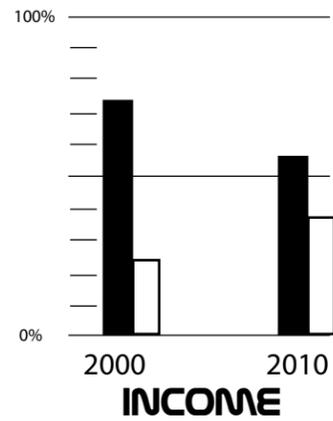
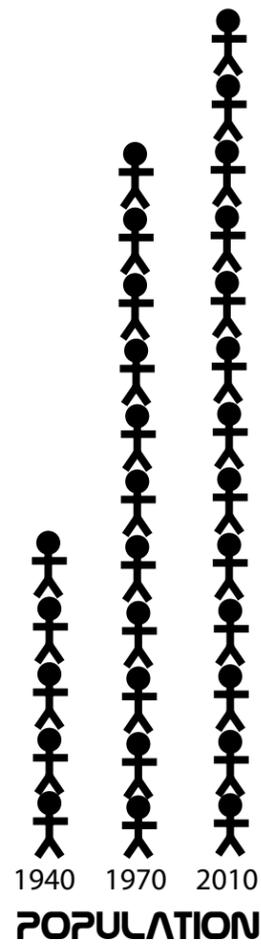
area is a modest commercial and office structure to the west of the station, industrial structures to the west, a gas service station and an institutional use to the southwest, and an office structure to the south, while the east of the site is bound entirely by the River des Peres.

Single family housing units are the predominant building type within our study area with multi-family housing following in second. These structures cover approximately 70% of the inhabitable land within the study area.

This entire study will be discussed in two parts. The first discussion will cover the demographic trends between the years 1940 and 2010. This analysis specifically focuses on the shift in population, housing type and occupancy, employment, income, age, employee migration, travel time to work, and mode choice. The second discussion will cover the spatial analysis of the site. This discussion includes landmarks, current site conditions, environmental conditions, and infrastructure circulation and impermeable land coverage.

# DEMOGRAPHICS ANALYSIS

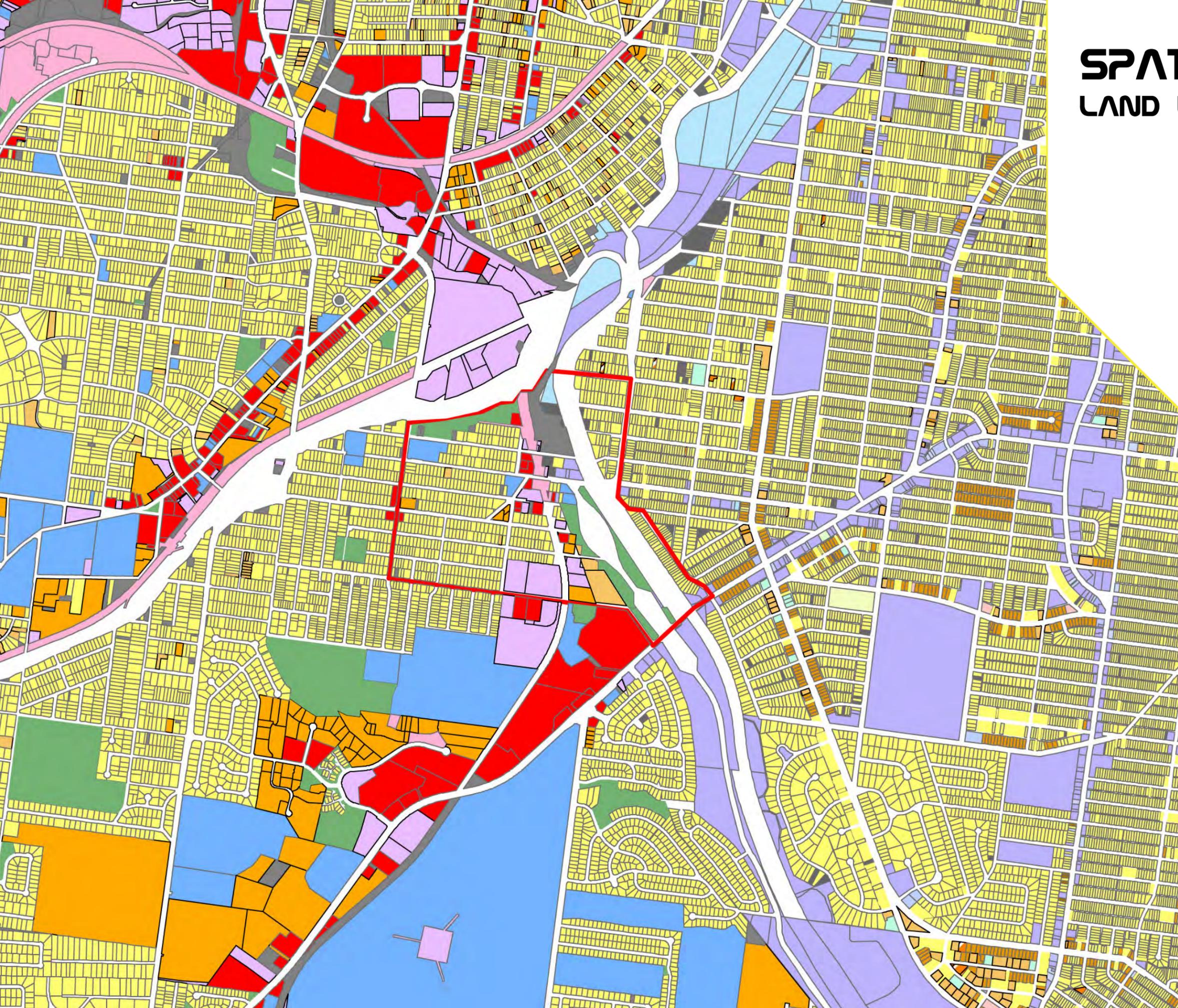
The Shrewsbury study area intersects census tracts 1031, 1038, and 2196<sup>2</sup>. These census tract geographies extend outside of our study area but provide insight into demographic trends that this area has undergone. Over the last seventy years the population has increased by over eight thousand individuals. This suggests that appropriate housing must either be maintained or developed for an expanding population. The primary age group is 20 - 44 year olds and the least represented age group is 5- 14<sup>2</sup>. Employment and income levels have decreased between the years 2000 and 2010<sup>2</sup>. This provides an opportunity to improve employment options within the study area. Housing occupancy is at an all-time high for the study area suggesting that an expansion of the current housing stock could draw in individuals to increase the population in the area. Personal automobile use has increased since 1970<sup>3</sup>. This can be a result of ease of use or accessibility, both of which can be addressed through transit-oriented development techniques. Travel time to work has increased between 1990 and 2000. If transit services could increase in efficiency, more riders may use transit to reduce their travel times.



# SPATIAL ANALYSIS

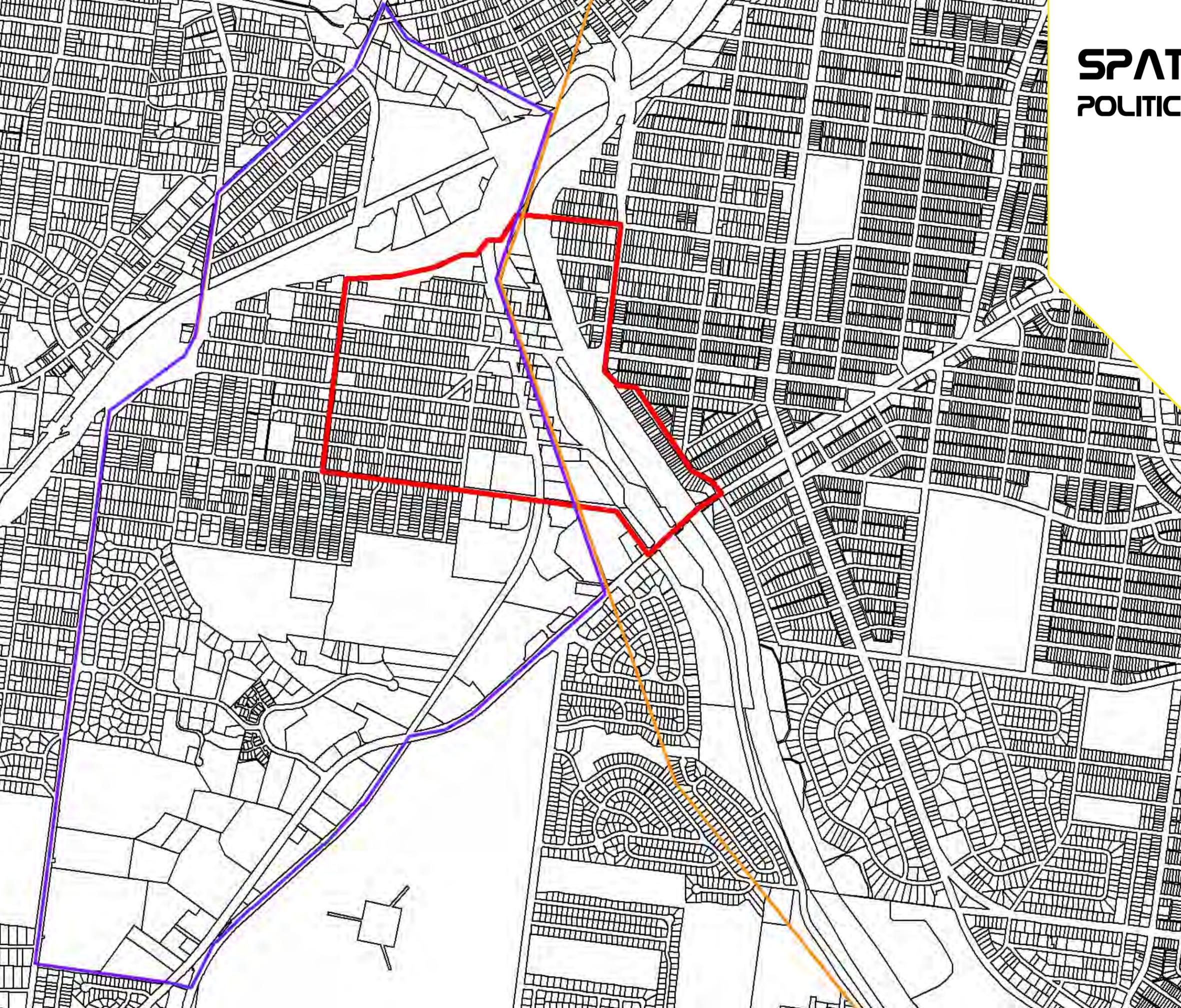
## LAND USE

The Shrewsbury study area is outlined in red in the image to the left. This site, as mentioned before is bisected by the St. Louis and Shrewsbury City borders. The area is bounded on the west, south and east by single-family residences. the main commercial corridor is Chippewa Street/Watson Road at the southernmost reaches of the study area. This is a commercial corridor whose commercial establishments are illustrated in red and light purple. While red is the standard color for commercial use, the St. Louis City parcel data lists trade and commercial uses interchangeably within its land use data. To maintain the accuracy of this land use information it is the decision of the team to denote the trade/commercial parcels with light purple as to distinguish the possibility of alternate uses within these parcels.



# SPATIAL ANALYSIS

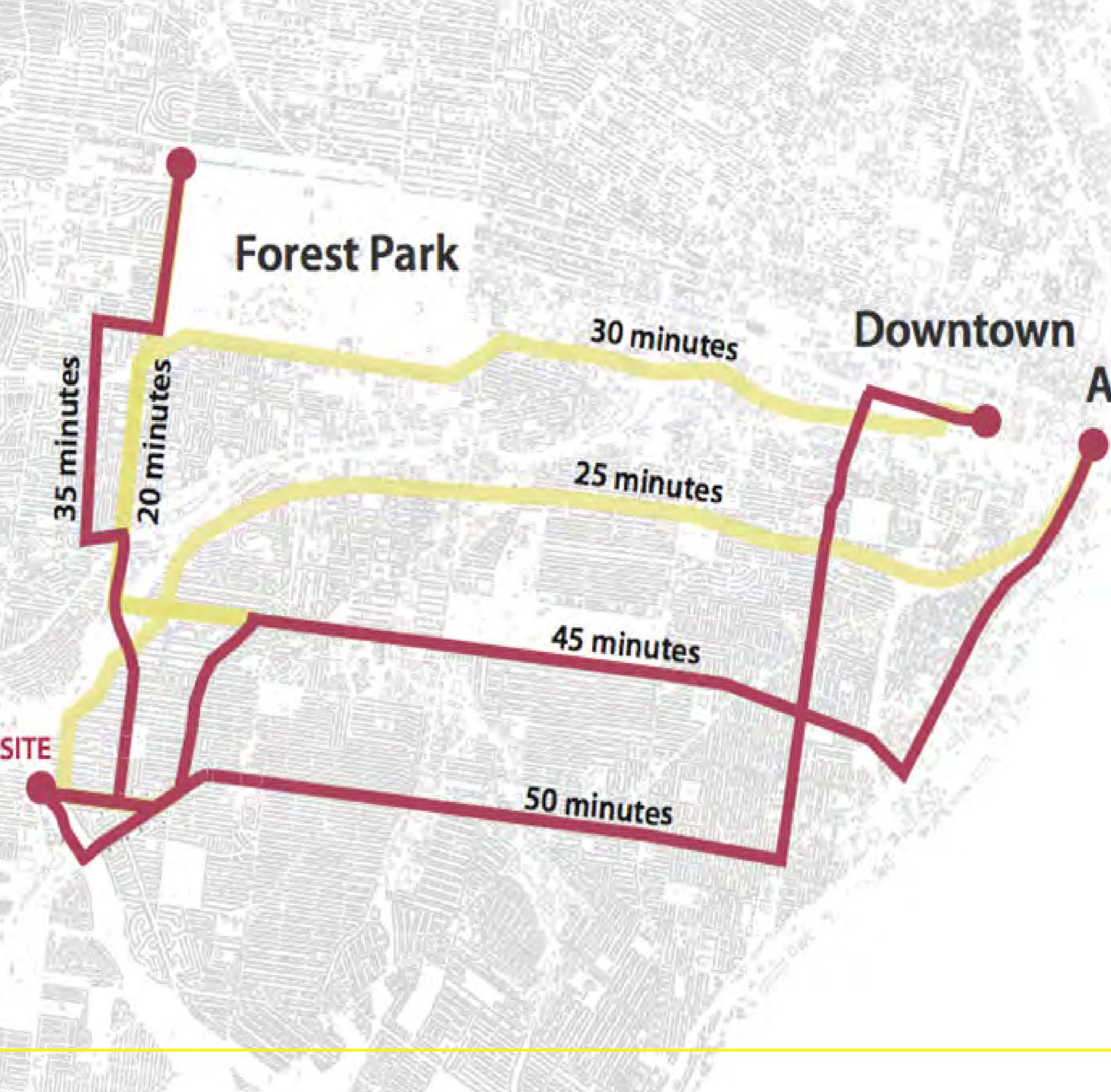
## POLITICAL BOUNDARIES



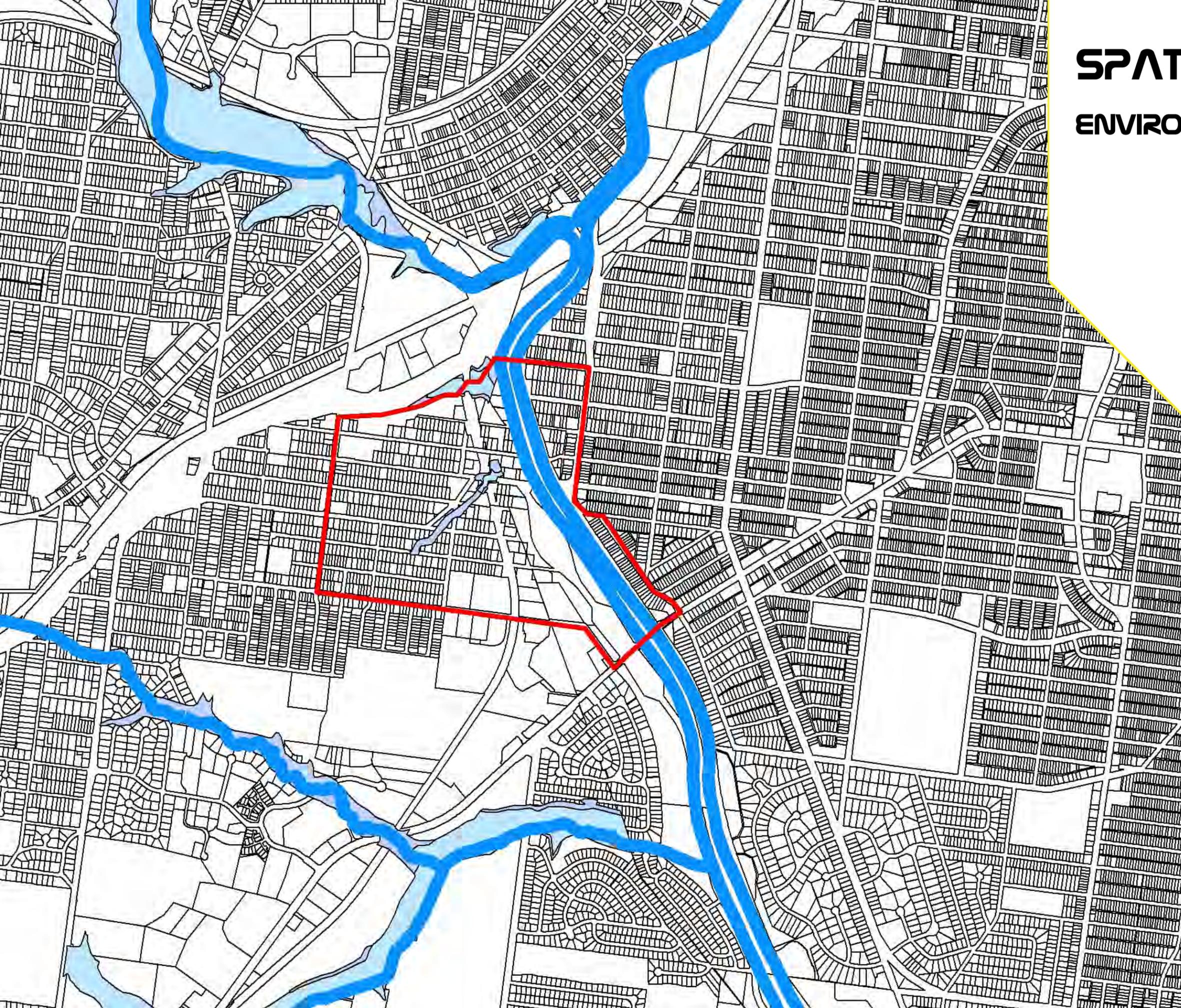
The Shrewsbury study area is, again, outlined in red in the image to the left. What is now shown in this map is the political boundaries that this site is situated upon. Outlined in purple is the Shrewsbury City Limit and in orange is the city limit of St. Louis. These political boundaries can be influential factors in the proposal of a redevelopment design. Each entity will have their own city administration and sets of regulatory policies that will influence design decisions made for future development. These policies can range from land use regulations, economic development incentives, all the way to curb cut standards and building material specifications.

# SPATIAL ANALYSIS

## SITUATION



The Shrewsbury study area is located in reasonable proximity to some of St. Louis's most popular attractions. These attractions range from passive destinations such as Forest Park and the Arch grounds to active places including the Scottrade Center and Busch Stadium. What is most important about these sites is the amount of time that it takes to reach these destinations. When traveling by personal automobile Forest Park is 35 minutes from the Shrewsbury Metro Station and the Arch grounds take nearly an hour to reach. The same destinations take half to just over half the travel time to reach when using public transit. Since the focus of this design project is to promote the development of transit oriented development this site could be a perfect location for TOD implementation.



# SPATIAL ANALYSIS

## ENVIRONMENT

The Shrewsbury study area is bisected by the River des Peres. The River des Peres is a designed waterway that functions to relieve overflow from the Mississippi River by mitigating backflow up the River des Peres. The River des Peres is unique because of this design. Most rivers, as shown in the map to the left, have 100-year and 500-year flood plain boundaries. (shown in blue and dark blue respectively.) Since the River des Peres is designed to manage the backflow coming from the Mississippi River, It has been designed so that even in the event of a 500-year storm there is no way that at this point in the river it will ever overflow. This provides an opportunity to build along a waterway without the threat of flooding. This waterway is also unique because it is a multi-dimensional water management tool. Greywater collected upstream is diverted into pipes that are 250 feet below the River des Peres exposed water retention area. This water isn't seen by residences of the area until it comes through their faucets as treated water. "While this system diverts greywater for retention, treatment plans have been created to restructure the waterway's water management processes."

# SOCIAL CAPITAL

## S

The concept of “social capital” describes the collective power and influence that can be harnessed by social networks, along with the benefits that can be attained as a result of that power. The following section contains a discussion of the major institutional, political, and social actors that will affect decision making at the Shrewsbury project site, and the effect that these actors have had on the initial design of the project. Furthermore, this section discusses the ongoing work that will be necessary to further engage the communities surrounding the Shrewsbury project site, in order to ensure that the project meets the highest standards of community buy-in and ultimately reflects the expressed desires of the community. [The area surrounding Shrewsbury includes a strong community with a rich history](#), and the proposed project must engage these elements in order to be successful.



The Shrewsbury project site intersects the boundaries of two cities and two distinct counties, along with multiple municipal wards, resident associations, and special districts. There are also many regional, state, and federal stakeholders that influence the development of the area. As a result, the site has a rich, yet complex, social infrastructure, which must be taken into account and engaged during every stage of the development process.

#### Historic, Social, and Cultural Elements Affecting Development

Platted in 1889 and incorporated in 1913, Shrewsbury prides itself on being a historic city which has long provided quality services to its residents. Though major infrastructure has been present in the community since the early 1900s, there was much growth and development throughout the second half of the 20th century<sup>1</sup>. This investment in infrastructure and development is evident today in the relatively healthy (if somewhat aged) housing stock

and community spaces (including parks, recreational structures, and public buildings) that are present in both Shrewsbury and the neighboring section of St. Louis City. As Shrewsbury approaches its centennial anniversary (in 2013), the city's leadership has expressed particular interest in preserving features of historic significance<sup>2</sup>.

As discussed in the demographics section of this report, there is a large population of young adults in the area surrounding the Shrewsbury MetroLink stop, in part because of the proximity of Webster University (located in the neighboring city of Webster Groves). The age cohort of 25 to 44 years, the largest cohort in the area, corresponds fairly well with the age group most inclined to use public transit at the national level<sup>3</sup>, 25-55, according to the American Transportation Association. This, along with the stronger-than-expected ridership at the Shrewsbury MetroLink station, provides a reasonable basis on which to propose expanded

public transit options in the vicinity of the project site. The area surrounding the project site is also diverse socioeconomically, providing a wide base of potential users for any development that takes place.

## Major Stakeholders

While the development must ultimately address the needs of the residents that will use the services provided on a regular basis, there are also institutional, governmental, and private sector stakeholders who will have serious input in any project that takes place in the vicinity of the Shrewsbury MetroLink station. Though it would be impossible to provide an exhaustive list of potential stakeholders, a number of major stakeholders have already been identified. The following is a list of these stakeholders, along with a description of their expressed interest, relevant current initiatives and, where applicable, the impact that they may have on this proposal. Here, they have been divided into groups based on type. The grouping and order of the following stakeholders does not reflect importance, influence, or extent of involvement in the proposed project.

### Local Government Stakeholders

City of Shrewsbury: The project site includes part of the City of Shrewsbury's 2nd Ward. Shrewsbury is currently engaged in efforts to re-develop retail opportunities along Watson Road (part of Historic Route 66), beginning with Kenrick Plaza. Though several plans have been developed in recent years, the initiative's current iteration includes the retailer Wal-Mart as the anchor development

project<sup>4</sup>. The city hopes that this project will spur further private sector investment along this historic corridor. An increase in retail and dining establishments would likely result in a corresponding need for increased public transit along Watson Road, a need which can be incorporated in the Shrewsbury MetroLink project. However, it is important to take into account the capacity of the City of Shrewsbury, itself a small municipality, to support multiple investment projects at the same time. If public-private partnerships, special tax incentives, or other municipal collaborations on the part of Shrewsbury are proposed, they must be measured against the competing interests of other development projects.

As a "point-of-sale" city (one which receives only the sales tax revenue generated within its borders, as opposed to "pool" cities which share sales tax revenue)<sup>5</sup>, the city is particularly supportive of projects which would increase revenues from sales<sup>6</sup>.

Alderman Ed Kopff expressed general receptiveness to projects that encouraged or supported economic growth in the community, and helped to meet the expressed desires (such as dining establishments) of the community. At the same time, he showed reservation towards projects that would require the use of eminent domain or that would negatively affect the quality of life of neighbors.

City of St. Louis: The project site includes part of the City of St. Louis' 23rd Ward, which is represented by Alderman Joseph Vaccaro. Alderman Vaccaro expressed that residents in his ward were generally happy with the development of

their community as is, with particular disinterest in development that would include low-income or mixed-income housing<sup>7</sup>.

In a more general sense, the City of St. Louis has an interest in reversing the population loss that has characterized the city since the 1950s and spurring economic growth in the region.

#### Institutional Stakeholders

Metro/Bi-State Development Agency: As the provider of transit services in the St. Louis area and an important land owner in the project site, Metro will be one of the primary stakeholders and most important partners in any development that is to occur in the immediate vicinity of the Shrewsbury MetroLink station. In order to ensure the long-term sustainability of the regional mass-transit system, Metro must continue to grow ridership and public support for transit.

John Langa, Vice President of Economic Development for Metro, has stated that it is only more recently that Metro has begun to see the economic development of the areas served by Metro as an important goal for the agency, but that this is now an expressed interest of the agency<sup>8</sup>.

Citizens for Modern Transit (CMT): CMT is the advocacy organization that promotes mass-transit (especially light rail) in the St. Louis region. CMT has played an integral part in initiating the MetroLink system and increasing public support for transit funding.

Citizens for Modern Transit is a strong advocate for transit-oriented development, and has an extensive library of TOD information on their website. Among other interests, CMT would like to see increased investment in transit-oriented development projects, increased economic development around transit, increased ridership for Metro, expansions of the MetroLink system, and the long-term sustainability of Metro in the St. Louis region<sup>9,10</sup>.

East-West Gateway Council of Governments (EWG): As the metropolitan planning organization for the St. Louis area, EWG controls the investment of federal money into the area's transportation system, and as such is an important stakeholder in any transit-oriented project<sup>11</sup>. EWG's long-term plans for the expansion of the MetroLink system include incremental expansion of the Blue Line, from Shrewsbury farther into South County<sup>12</sup>. As such, they will have vested interest in improvements that occur at the Shrewsbury station.

Missouri Department of Transportation (MoDOT): The Missouri Department of Transportation is in the late phases of planning a major infrastructure enhancement, the South County Connector, in the immediate vicinity of the Shrewsbury MetroLink station. This project will enhance the connectivity of South and West County and alleviate traffic in residential areas of South County. Though there are several options being studied for the South County Connector, the option that would most directly Shrewsbury Station is the River des Peres Boulevard Extension<sup>13</sup>.

Aside from the South County Connector, MoDOT will also be an important partner in any of the public road enhancements that will make up the project proposal.

Great Rivers Greenway (GRG): Though the River des Peres Greenway Trail currently ends at Lansdowne Avenue, Great Rivers Greenway has plans to extend the trail further north along the River des Peres riverbank. Great Rivers Greenway has an expressed interest in better connecting recreational opportunities (such as parks and other major landmarks) through a regional system of biking and walking trails with the purpose of improving quality of life in the region<sup>14</sup>.

Metropolitan Sewer District (MSD): Because it plays an important role in MSD's sewer overflow system, the agency owns the River des Peres and thus has an important interest in any development that will affect the river. The stated interests of MSD along River des Peres include minimizing the environmental impact on the river (including minimizing storm water run-off and the presence of pollutants/toxins), improving water quality, and improving the aesthetic elements of the river. Lance LeComb, of MSD, was also open to the possibility that improvements made along the River des Peres at the project site could serve as a model for improvements made all along the river<sup>15</sup>.

It is also worth noting that MSD is currently working with the Army Corps of Engineers, which is in the preliminary phases of evaluating

potential strategies for improving the River Des Peres. Because projects undertaken through the Army Corps of Engineers typically have a long project lifespan, it is unlikely that the Corps will be a direct partner in the proposed Shrewsbury project. That said, they will likely share the interests expressed by MSD for the river<sup>16</sup>.

#### Community Stakeholders

Lindenwood Park Neighborhood Association: The main organization through which community interests are collectively expressed on the St. Louis City side of the project area is the Lindenwood Park Neighborhood Association. This neighborhood association works closely with the St. Louis City Board of Alderman in the development in their neighborhood, particularly in the redevelopment of housing through their development arm, the Linden Heights Housing Corporation (LHHC). Like Alderman Vaccaro, the LHHC expresses that it is “not in the business of sponsoring low income or subsidized housing” (although they do provide minimal information for low- and moderate-income individuals seeking homeownership on their website)<sup>17</sup>, and would likely protest efforts to introduce intentional low-income or mixed-income housing into the area. However, they may be open to collaborating with developers that were interested strictly in the redevelopment of blighted or deteriorated properties for market-rate use.

Aside from their housing redevelopment efforts, the Lindenwood Park Neighborhood Association hosts regular neighborhood meetings,

organizes the block captain program, and organizes regular events in the community<sup>18</sup>.

**Residents of Shrewsbury:** Though no formal neighborhood or community association exists in Shrewsbury, the much smaller nature of the municipality invites increased participation through municipal channels and promotes (though does not guarantee) more responsiveness on the part of elected officials. Some of the initial community interests that were expressed by Alderman Kopff included additional dining establishments and reduced traffic connecting to Highway 44<sup>19</sup>.

**Metro Riders:** An important constituency for this proposal is the base of riders that use the Shrewsbury station on a regular basis for both MetroLink and the connecting bus routes. The Shrewsbury station has become an important park-and-ride location for residents of South St. Louis County, extending beyond the immediate Shrewsbury area<sup>20</sup>. From the Shrewsbury station riders can reach the business districts of Clayton and St. Louis City, recreational options along the entire MetroLink system, and the airport. The Shrewsbury station is also highly utilized during sporting events.

#### Private-Sector Stakeholders

Specific private-sector stakeholders have not yet been identified, but will include the private entities that invest in redeveloping the project site (including light industry and convenience/comfort establishments), owners of new and acces-

sible businesses in the vicinity of the site, residential developers and other private sector actors. Speaking in very general terms, their interests will be in the establishment or expansion of their businesses, and the long-term sustainability of their investments.

It bears repeating that the above list is only an overview of the important stakeholders identified to date, and is not intended to be a comprehensive list of actors or their interests. As the project proposal continues to be developed, new stakeholders will emerge, the community will become further engaged, and many additional interests will be identified and expressed.

#### Plan for Expanded Social Engagement

This initial plan for transit-oriented development at the Shrewsbury MetroLink station attempts to respond to the interests of the community as they have been expressed through elected and appointed officials, neighborhood associations, community leaders, and the individuals contacted through community walk-throughs. This more representative approach to information gathering was chosen in order address the various project constraints (logistical, time, etc.), the limited commitment that has been expressed on the part of major stakeholders to date, and other considerations. Naturally, as the project progresses beyond the most preliminary phases, it will of increasing importance to invest in more meaningful community engagement. This will not only ensure that the diverse needs and interests of the community are addressed, but will also greatly increase the buy-in of the community.

-Moving forward, it will be necessary to:

1. Ensure commitment on the part of the project partners that can bring momentum to the project (Metro, municipal leaders, etc.). Though it is understood that a project's feasibility is determined over time and through thorough analysis, good faith commitment on the part of several driving partners can help ensure that the ability to respond to the needs and interests of the community is present, before engaging the community in a long, perhaps frustrating, development process.

2. Begin the community engagement process by working with associations (such as the Lindenwood Park Neighborhood Association on the St. Louis City side, and perhaps through a municipal committee on the City of Shrewsbury side) that have existing relationship with residents.

3. Hold a series of resident meetings (using mixed methods such as preliminary presentations, charrettes, community mapping and priority ranking exercises) aimed at engaging residents and gathering community input. At the same time, engage non-resident MetroLink riders through on-board surveys and public meetings. The preliminary development plan included in this proposal should be used as a framework for resident feedback, but should be presented only as one of many valid options for the site's development.

4. Incorporate resident feedback into site design and perform the necessary analyses (budget, mar-

ket, environmental impact, feasibility, etc.). Present the updated proposal(s) to the community through additional meetings and public notices, providing the appropriate avenues for additional feedback.

5. Select and move forward with the most appropriate plan based on resident feedback, input from other stakeholders, and other criteria.

# DESIGN PROPOSAL

## D

Because of the complex set of issues affecting the development of the Shrewsbury MetroLink station discussed throughout this proposal, **a phased and flexible approach to development was chosen**, in order to maximize the potential for success. These four phases, designed to improve the area around the station by incrementally incorporating various elements of transit-oriented design, focus first on making immediate improvements the station and adjacent public infrastructure; next on introducing light industry, capitalizing on the site's easy access to the rest of the region; third on making improvements to the neighboring River des Peres; and finally on increasing the population density of the neighborhoods around the Shrewsbury station, and by doing so increasing the number of users that access MetroLink on a day-to-day basis.



### Design Introduction

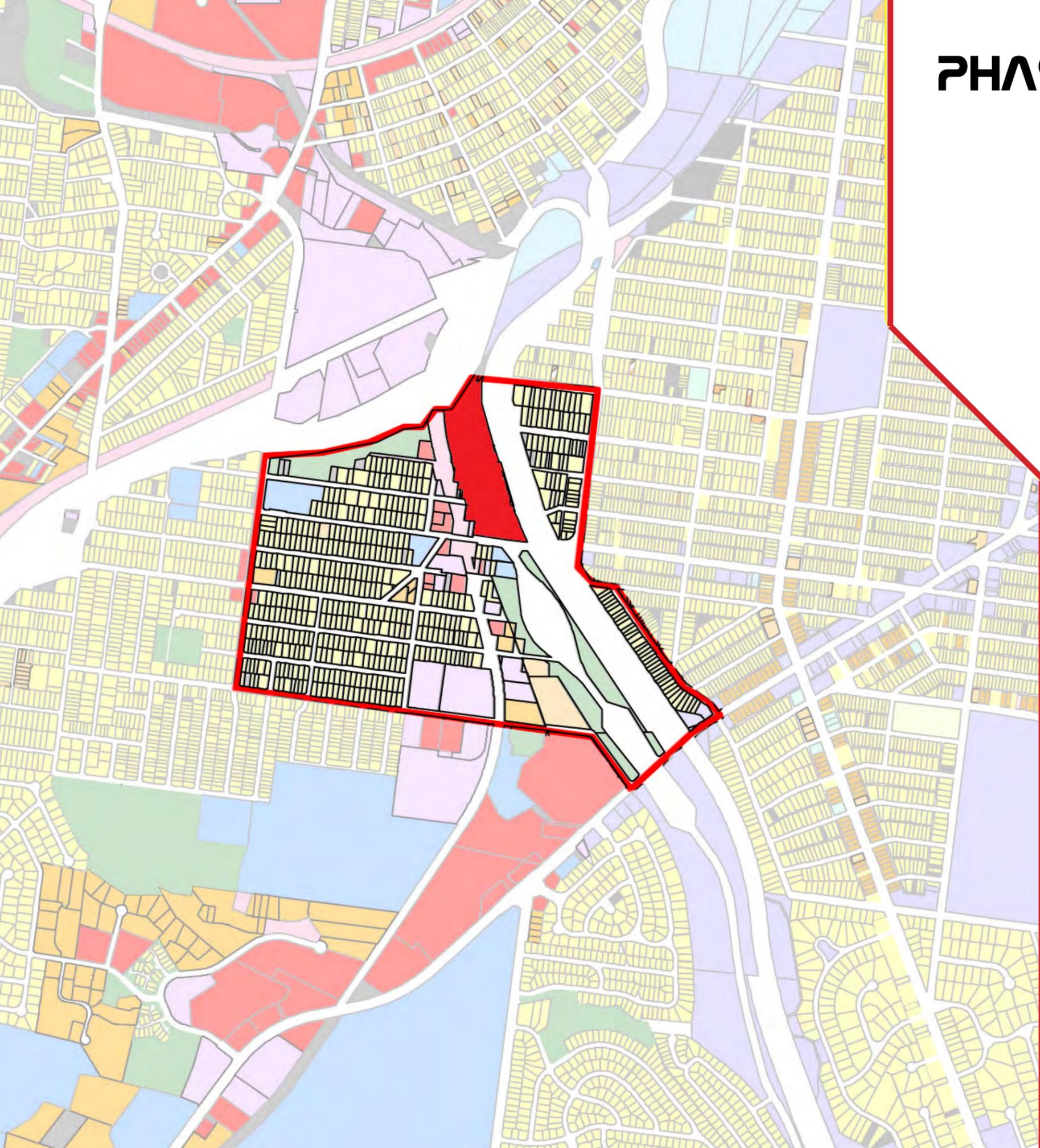
At this point in the project it is important to address the issues raised by the previous analysis of the site. While grand moves could greatly reshape the landscape within the Shrewsbury study area that we have defined, small moves including sidewalk redesign and policy reformation can have an even more profound effect on the future vitality of the area.

With that in mind we have chosen a modest, attainable design proposal. This proposal is based on the idea that we refer to as “Phase Growth.” Phase Growth intends to incrementalize development. This process begins with a grand gesture that begins to redefine what the area is and begins to shed light as to what the area could ultimately be. Supplemental development

occurs as market demand increases. This approach incentivizes public-private partnership as all stages of development can create positive spillovers for each party in the design and development processes.

The phased approach that we propose focuses on initial private investment by current land owners. This initial development serves as a catalyst for private investment in the future. It is this project’s intent, although lacking an exact timeline, to provide the framework to create a viable example of transit-oriented development in 15 years. While this seems like a tall order for a metropolitan area that has no such example, by keeping the proposals independent but with interrelated externalities, it is our belief that this goal can be attained.

# PHASE 1

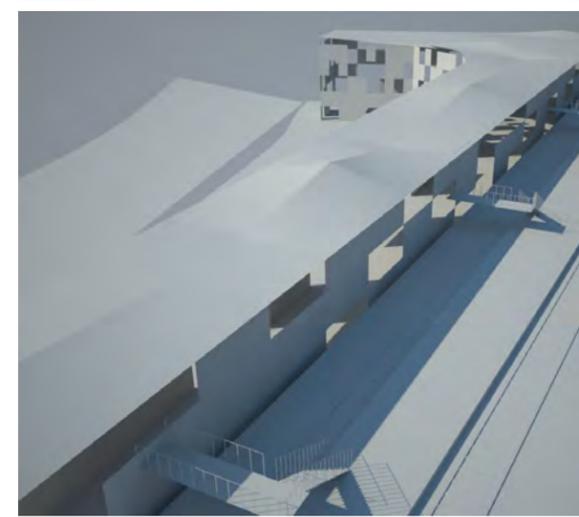
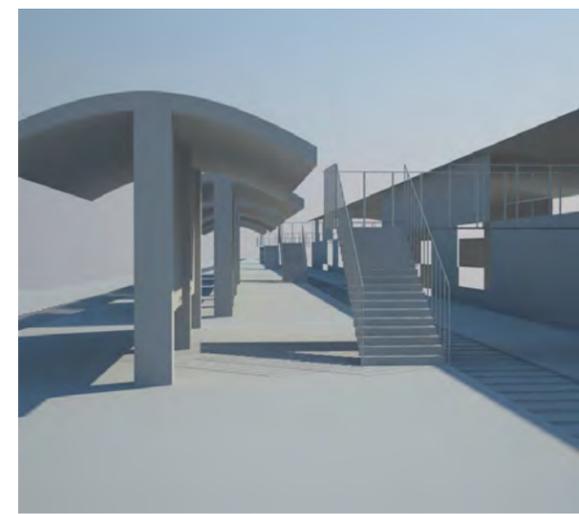


Our Phase 1 development proposal is on the Shrewsbury Metro Station site itself. It is our belief that the existing ridership at the site must be accommodated before we begin efforts to attract more riders to the transit station.

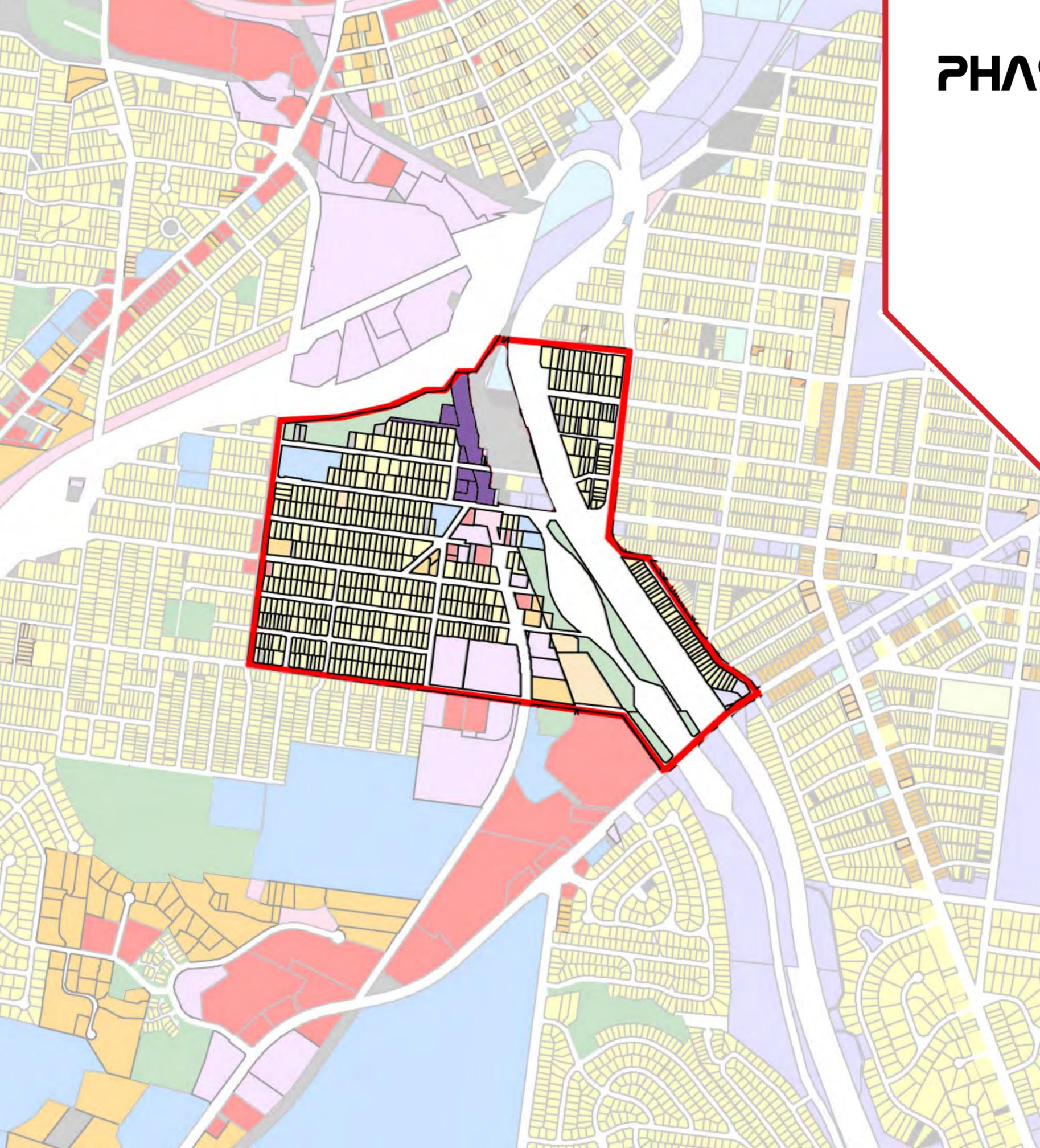
This initial design moment takes place as Metro builds a three-story structure that will house small vendors and a bicycle storage area. This structure will allow patrons of the Metro transit system to wait for buses and trains in a climate controlled environment; which, is something that does not exist currently.

This improvement has not only qualitative but quantitative benefits as well. Vendors that rent within this station will be required to pay rent to Metro itself. This will raise overall revenues after the construction and development costs for the project are paid, and will decrease the subsidy needed to maintain adequate transit services in the area.

We believe that this design intervention will increase the desirability of transit utilization at this station because the station itself begins to cater to the rider. Climate and accessibility to services will no longer be a deterring issue when utilizing the Shrewsbury Metro Station.



## PHASE 2



Phase 2 focuses on improving employment opportunities within the study area. Currently there are underused structures along St. Vincent Avenue from Lansdowne north to Interstate 44. It is our goal to expand and improve these facilities to reverse the existing employment trends within the area.

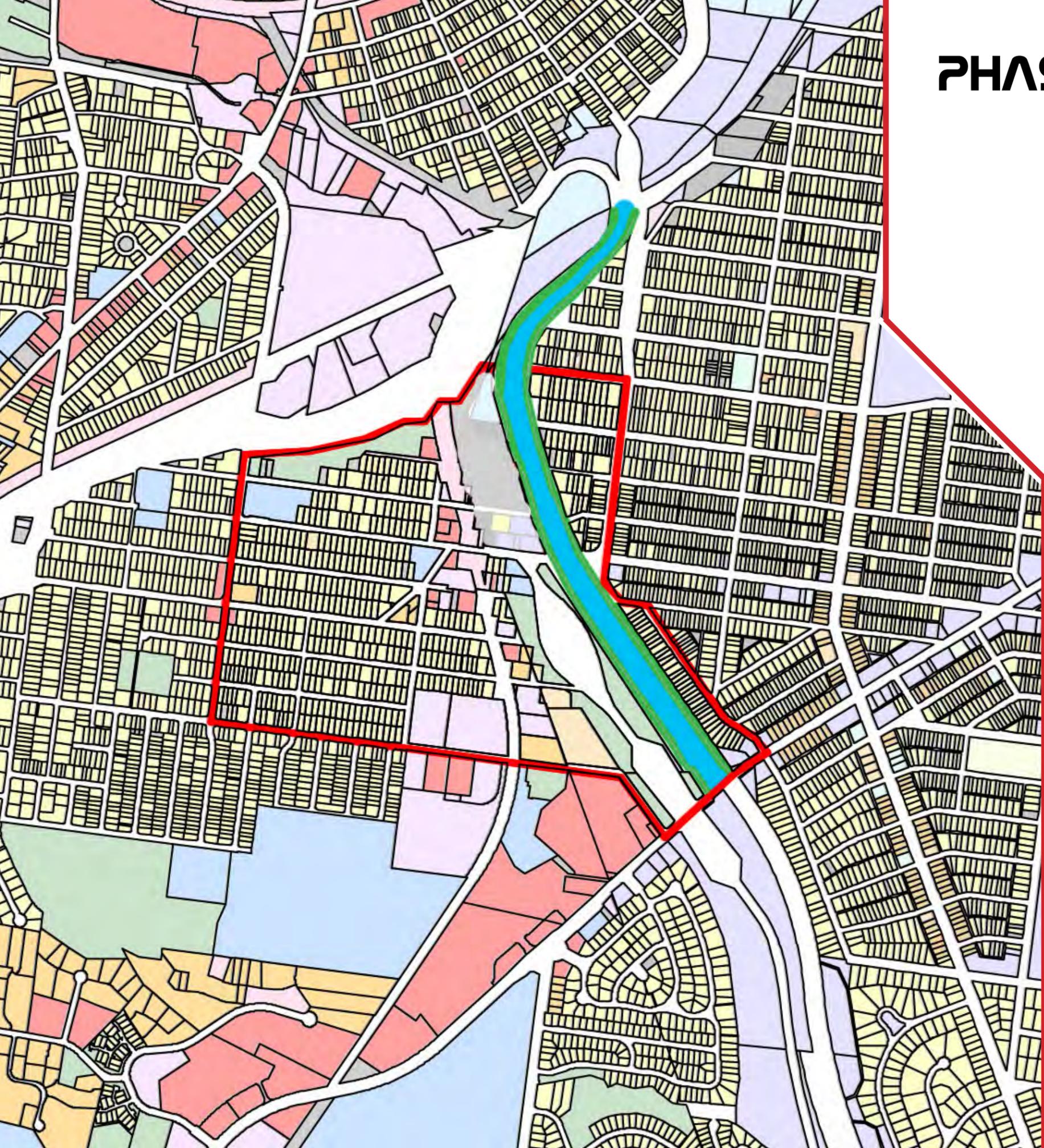
The industrial structures that we are proposing are not the standard brick-and-mortar structures. These proposed Structures are instead built with green technologies. These structures appear to be office structures, but the difference in appearance to use can reduce neighborhood opposition to this development and promote further green development in the area.

The most important part of this phase is that it does not propose a change to the existing economic environment but instead enhances it. By building off of existing businesses the city has a better chance to retain these businesses and increase employment rather than having to recruit new businesses to supplement growth.

We propose light industrial uses, such as electronics assembly. Workers would use transit, and products can be shipped easily by highway or freight train.



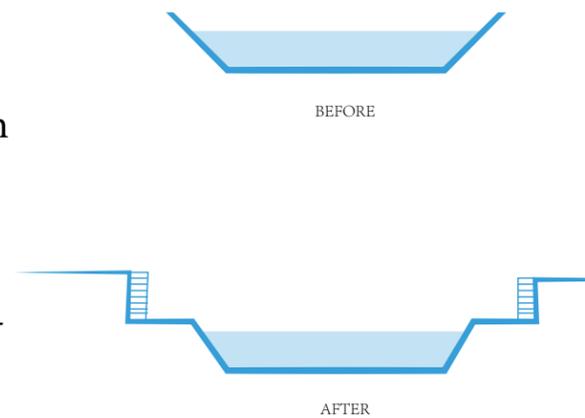
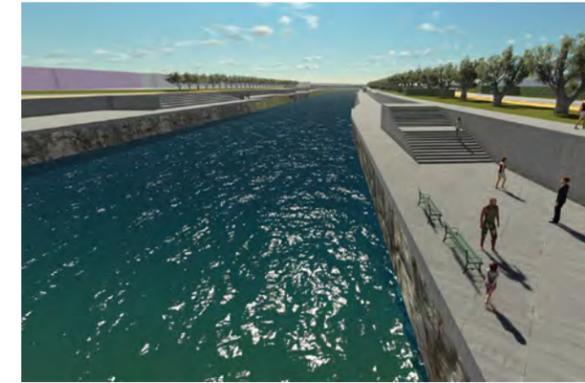
# PHASE 3



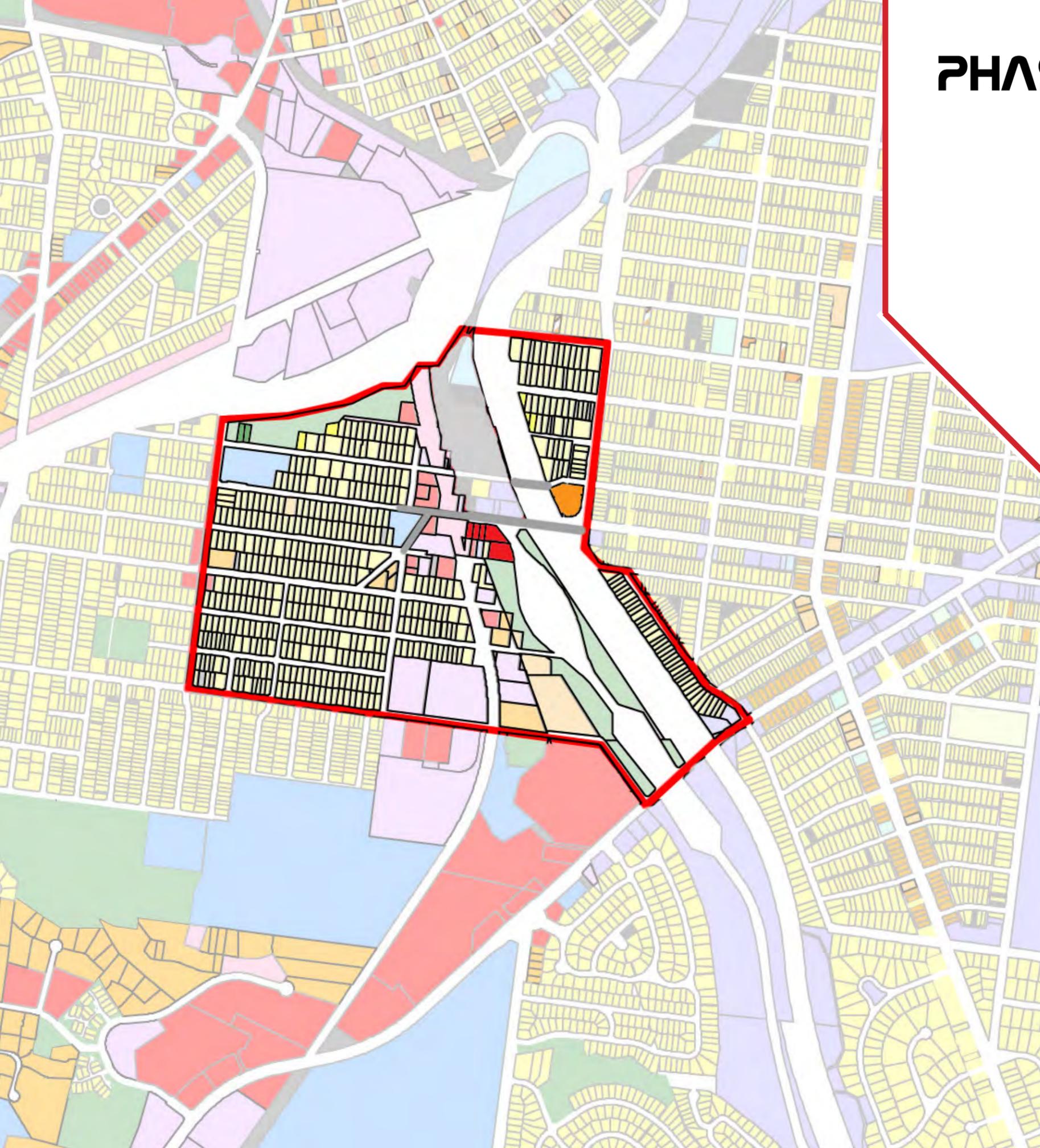
The third development phase concentrates on revitalizing the River des Peres waterway. The river is currently inaccessible to pedestrian activity and as a result is underutilized space within our study area. This proposal suggests that the waterway be activated in two ways.

The first way the water front should be activated is by rebuilding the waterway itself. It is our recommendation that the riprap along the edges of the River des Peres be removed and replaced by a channelization that narrows the river but increases the depth of its retention area. This would create the illusion of an active waterway but still retain the current use of the river itself.

The second proposal is to activate the area surrounding the waterway. Much like the Country Club Plaza in Kansas City, waterways in major cities can spur economic development. We recommend that similar action be taken along the waterway within our study area. This would activate the water edge by introducing pathways and natural bioswales that promote both human activities in the area as well as increasing water management capacity in the area.



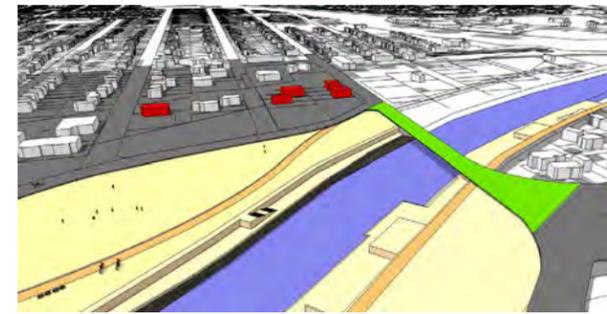
# PHASE 4

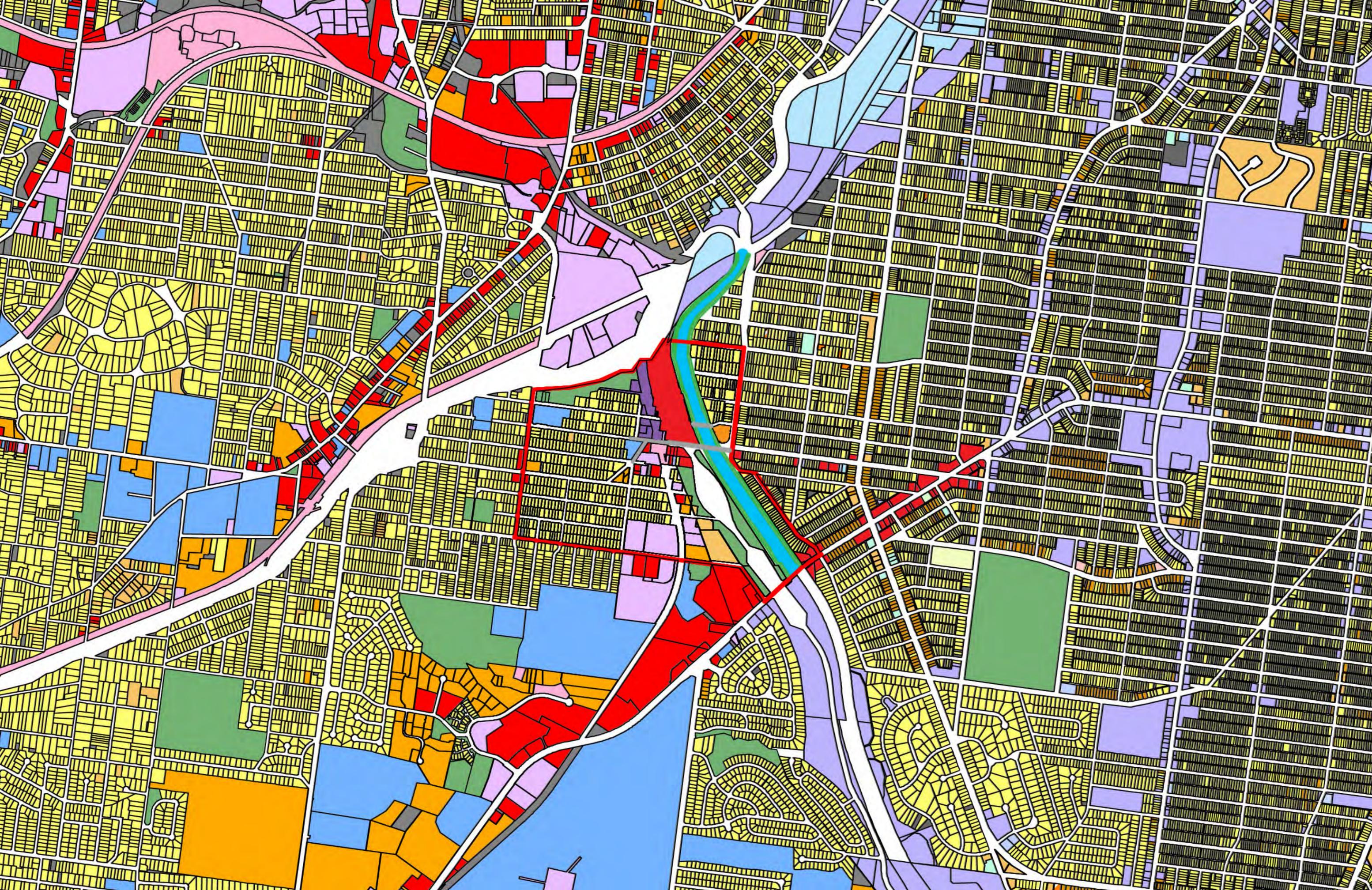


The final phase in our design proposal focuses on increasing density and the overall pedestrianization of the study area. This phase suggests that multi-family housing be constructed on the St. Louis City side of the study area. This allows for the development to be constructed along the newly renovated River des Peres waterway and allows convenient access to both the Shrewsbury Metro Station as well as major thoroughfares for personal automobile use.

This structure is made accessible by streetscape improvements and a pedestrian bridge over the River des Peres. Important streetscape improvements include widening sidewalks, street trees, and on-street parking. These interventions create a buffer between the pedestrian and the automobile. This functions to provide a safer pedestrian environment as well as to calm traffic as the roadway is “put on a diet.”

The pedestrian bridge along Sutherland Avenue is another attempt to increase pedestrian safety. By moving pedestrians off the street the likelihood of pedestrian-automobile related incidents is greatly reduced. This bridge also allows residents of the area to navigate the redesigned waterway without having to cross traffic.





# POLICY RECOMMENDATIONS

## P

The development of the Shrewsbury MetroLink station will be governed by a complex set of laws and regulations that traverse various jurisdictions and levels of government. These policies range from restrictions on use to limitations on environmental impact, and will affect many of the most basic decisions that are made throughout the development of the site. *While many of the policies and regulations introduce challenges into the development plan, there are also opportunities that exist through financing possibilities and development incentives.* This section examines the major political, legal, zoning, regulatory, and financial considerations that affect the project, including both challenges and opportunities that currently exist. Where possible, this section also explores particular strategies for overcoming some of the most significant challenges that are presented.



**POLITICAL**

The Shrewsbury station microcosm might serve as a capable example of the complex political systems operating in the St. Louis area. That is, this nine-acre rail station is partially located in St. Louis County and partially located in the City of St. Louis, an independent city existing in no county. The County portion of the station is in the City of Shrewsbury. In Shrewsbury, the station's Second Ward is served by two aldermen. In St. Louis, the station is entirely within the 23rd Ward and Lindenwood Park neighborhood, however the 16th Ward's northern boundary is just south of the station.

Metro <sup>1</sup>(Bi-State Development Agency) is a Missouri-Illinois bi-state compact created as a conduit for debt related to large-scale public projects.<sup>2</sup> While Metro also operates a transit system, it has the power to condemn property and to issue bonds for transit and development. Metro is supported

by sales taxes and fares. A private nonprofit, Citizens for Modern Transit, works closely with Metro and advocates for light rail improvements and expansion.<sup>3</sup>

The River des Peres is owned by the Metropolitan St. Louis Sewer District (MSD)<sup>4</sup>, which also has broad regulatory and permitting discretion regarding storm water management. Since the River connects with the Mississippi, the U.S. Army Corps of Engineers<sup>5</sup> is involved with long-term designs for the River. MSD's operations are subject to a consent decree following a lawsuit involving the Environmental Protection Agency and the Missouri Department of Natural Resources.

The elevated freight train tracks belong to Burlington Northern Santa Fe Railway Co. <sup>6</sup>Ameren holds an easement in the vicinity of its high-tension wires. Great Rivers Greenway District (GRG)<sup>7</sup> operates the River des Peres Greenway with tax support. Regional transportation projects, especially those served by federal funds, are coor-

minated by East-West Gateway Council of Governments.<sup>8</sup>

Roads in the area are equally fragmented in jurisdiction. Interstate 44 falls under the purview of the Missouri Department of Transportation. Relevant streets in St. Louis are maintained by the St. Louis Street Department, although the section of River des Peres Boulevard south of Lansdowne is technically in park land. The boulevard is a George Kessler design.<sup>9</sup> The City of Shrewsbury maintains its streets, with the exception of Lansdowne Avenue, a part of the County's arterial road system.<sup>10</sup> Any future South County Connector would be coordinated by the St. Louis County Department of Highways and Traffic, MoDOT, and the Federal Highway Administration.<sup>11</sup>

Industrial development may involve the Missouri Department of Economic Development<sup>12</sup>, the County Economic Council<sup>13</sup>, the City's St. Louis Development Corporation<sup>14</sup>, and municipal and county TIF commissions. Housing development may involve the U.S. Department of Housing and Urban Development<sup>15</sup> and the Missouri Housing Development Commission<sup>16</sup>.

TOD in the vicinity of the Shrewsbury station might look simple but will doubtless involve the coordination of various jurisdictions, elected officials, and government agencies.

## ZONING

In general, there are a few barriers to entry at the Shrewsbury Metro station that may hinder development. Further, the unique location of the Shrewsbury Metro Station in both the City of Shrewsbury and the City of St. Louis provides distinct challenges to plan implementation. These barriers, however, can easily be overcome by using the significant amount of vacant or underutilized land around that station.

In terms of land currently available around the station, Metro owns the 12.8-acre parking lot surrounding the station.<sup>17</sup> The City of St. Louis owns six acres of open space adjacent to the River des Peres.<sup>18</sup>

The land surrounding the Shrewsbury Metro station is currently zoned for multiple distinct and disjointed uses. The majority of the land is zoned for single-family residential uses.<sup>19</sup> This designation in the City of St. Louis allows for a single-family home with a maximum building height of 2.5 stories, and a minimum lot area of 4,000 square feet.<sup>20</sup> Additionally, in the City of St. Louis, by special permit, small greenhouses, bed and breakfasts as well as parking structures may be permitted.

The City of Shrewsbury has jurisdiction over the vast majority of land upon which commercial and industrial uses are currently in place.<sup>21</sup> The current light industrial area west of the Shrewsbury Metro station is zoned for industrial and manufacturing uses, including wholesale, warehousing and truck and transit terminals.<sup>22</sup> The maximum building height permitted by the City of Shrewsbury for

these types of uses is 100 feet, a little more than nine stories.<sup>23</sup> Additionally, a portion of the land located west of the station in the City of Shrewsbury is commercially zoned as a shopping district. This designation permits retail and services, with a maximum building height of 45 feet, or a little over four stories.<sup>24</sup>

The first goal of the plan would be to obtain special zoning permits or variances that would allow for mixed uses that would increase density at the site. In both the City of St. Louis and the City of Shrewsbury, this could be achieved by amending the zoning code to allow for mixed uses. A more feasible alternative would be to seek an overlay district, permitting both of the cities with jurisdiction over the Shrewsbury station.

For example, an overlay district permitted by both the City of St. Louis and the City of Shrewsbury is a Planned Unit Development (PUD).<sup>25</sup> The City of St. Louis's stated purposes of PUD are as follows: "(to) provide for a scale and flexibility of development which could not otherwise be achieved through the existing single use zoning districts, without detriment to neighboring properties, (to) encourage site consolidation and planned mixed use development, . . . (and to) provide for the development of property while protecting the ecological, topographical, and historic features that might be damaged by meeting fixed single use district regulations."<sup>26</sup>

A PUD would allow for greater flexibility in planning, housing types, and uses which would allow large-scale development to occur at the site. Mix-

ing housing types and uses is a main purpose and goal of the plan, and therefore a PUD would be highly beneficial. However, there is significant public review of PUD applications, and approval from the both cities would be necessary for the project to implementation of the various phases. For example, both the Community Development Commission and the Board of Aldermen in St. Louis City would, after public hearings, need to review the proposed plan.<sup>27</sup> Importantly, however, the City of St. Louis would allow for projects proposed to be completed in distinct phases to obtain approval of the first phases, prior to the approval of later phases.<sup>28</sup> As this comprehensive development plan to the Shrewsbury Metro station has been put forth in distinct phases, this part of the approval process could benefit plan implementation.

## REGULATORY

As noted in the previous section entitled "Political," the two major federal regulatory entities with the largest impact at the Shrewsbury Metro station are the U.S. Environmental Protection Agency (EPA), and the U.S. Army Corps of Engineers (USACE). These two entities, along with MSD, have an important regulatory presence at the site that cannot be ignored.

First, EPA filed suit against MSD alleging various violations of untreated sewage from St. Louis City's sewage collection system, including sanitary sewer overflows (SSOs) and combined sewer overflows (CSOs) into streams, including the River des Peres which runs adjacent to the Shrewsbury Metro Station. As of August 2012, MSD and EPA have agreed to a settlement under which the

MSD will need to make extensive improvements to its sewer systems at an estimated cost of \$4.7 billion over 23 years.<sup>29</sup> A key component of the consent decree is MSD's commitment to include \$100 million for green infrastructure to reduce storm water flows into St. Louis waters, including a goal to reduce CSO discharges to the Mississippi River by 10%.<sup>30</sup> To assist MSD in meeting this ambitious goal, all phased components of the project will have the goal of zero storm-water discharge. This can be achieved by utilizing rain gardens, green roofs, as well as storm-water retention and detention systems assuring that all water is dealt with onsite, thereby reducing the project's overall contribution to the storm water problem.

Second, USACE is currently engaged in a one-year, \$100,000 feasibility study along the River des Peres.<sup>31</sup> This study, however, largely focuses on the northern portion of the River Des Peres, though it does include Deer Creek in its project area. Projects of this size undertaken by USACE have a 20-year life span from feasibility to project completion. Thus, this plan includes in its project design a river walk similar to that currently located in Kansas City, Missouri. It is the hope of this project design team that this targeted improvement of community connectivity to the River des Peres will serve as a catalyst, encouraging other communities both upstream and downstream to begin utilizing the River to its utmost potential.

It was suggested to the project design team that as MSD currently owns the River des Peres, landowners adjacent to the River could hold MSD accountable for not adequately maintaining its

property, thereby forcing MSD to make beautification improvements to the River. It is unclear, however, what the outcome of such a strategy would be.

## FINANCIAL

Financing TOD happens in many different ways. When TOD occurs organically in dense, high-growth urban areas, conventional private financing—mortgages, business loans, general secured transactions—usually covers the cost.<sup>32</sup> Every TOD project is different, however, and many are subsidized through grants and tax credits related to transportation, housing, industrial development, or job creation.

This proposal's project area is at an end-of-the-line (nearly suburban) neighborhood transit station in a slow-growth market. Therefore, a combination of locally available, creative financing mechanisms may be necessary. Tax-increment financing districts, a Community Improvement District, a Transportation Development District, Industrial Development Bonds, and other possibilities would make TOD possible here.

Phase I involves the construction of a station building on land Metro already owns. Metro has the ability to issue bonds for construction.<sup>33</sup> This proposal suggests that Metro construct a three-story building east of the station platform, repaying the bonds through increased ridership at Shrewsbury and rents from bicycle- and convenience-oriented tenants in the building. Should the South County Connector supplant parking in the western portion of the station area, the new station building should be built to link to a new parking structure

just north of the planned building. The availability of inexpensive long-term parking in the garage could serve as an additional incentive to business travelers who desire overnight parking while also boosting revenue. To the extent that the convenience store/coffee shop tenant will offer fruit and other healthy options, the Healthy Corner Store Project of University of Missouri Extension may be able to help.<sup>34</sup>

In Missouri, a Community Improvement District (CID) is generally a political subdivision of a municipality created by a petition of a majority of the property owners. Sometimes a CID is a non-profit organization. In either case, the CID is a separate legal entity that may receive funding through special assessments, real property taxes, grants, donations, and rents. These funds may be used for a wide variety of uses. The possibilities include public improvements, waterways, sidewalks, streets, overpasses, drainage, utility, trash receptacles, street furniture, plazas, parking lots, garages, public art, and even news or child care outfits.<sup>35</sup> Relevant property owners in the District would need to support a CID, as would political leaders. At the Shrewsbury station, dual CIDs might exist in the adjacent municipalities (Shrewsbury and St. Louis), or a CID might be formed as a Missouri non-profit operating in both communities.

Several of the operations of a CID overlap with those of a Transportation Development District (TDD). A TDD is also a creature of statute<sup>36</sup> and must be approved by a majority of voters in the District, as well as MoDOT and the Missouri Highways and Transportation Commission, a state

agency. A TDD may be able to issue bonds and can impose district-wide special assessments, property taxes, and sales taxes.<sup>37</sup> This money can fund street, interchange, bridge, signal, signage, bus stop, and rail station improvements, among others such as parking lots and garages. An example of TDD in St. Louis is the Loop Trolley TDD, which spans University City and St. Louis. A TDD may also be able to condemn land for its purposes, but the use of eminent domain is often avoided for political reasons.

Tax-increment financing (TIF) districts<sup>38</sup> can also be troublesome politically, as the public may see these as “handouts” to wealthy developers. In practice, however, TIF may be greatly misunderstood. When a TIF district is formed, property taxes go on at the current rate of assessment. Any increase in property tax due to development and construction flows, however, to the TIF district itself, and reimburses the developer(s) for improvements. Improvements may include studies, surveys, legal fees, acquisition costs, demolition, building rehabilitation, construction, or relocation. A TIF may last for as long as 23 years and in some cases will include sales taxes collected in the district, as well as property taxes. TIF requires a finding of blight, however the dictionary definition of “blight” is broadened through statute and case law to include situations involving significant economic development, such as at West County Center in Des Peres, Missouri.<sup>39</sup> Applications must be made through the relevant municipality or municipalities. In St. Louis County, a “Super TIF Commission” makes recommendations (which may be ignored) to municipal TIF commissions such as that operat-

ing in Shrewsbury.

In TIF districts, the increases in real estate or sales tax flow to the district itself, but the “base” or pre-TIF taxing amounts flow through the usual channels to the usual recipients—libraries, fire departments, school systems, park districts. After the TIF district is dissolved, increases flow to those same customary recipients. Therefore, a TIF may be considered less a “handout” to a developer and more a reimbursement for development activity. In the slow-growth St. Louis region, however, many times competing parties—developers, private industry, and municipalities—vie for business and development. Citizens object when, say, a Walmart moves from St. Ann to Bridgeton (or vice versa) and benefits from TIF in constructing its new store and leaving the blight of its smaller, shuttered location in the adjacent municipality.

Compounding this problem is sales taxation in St. Louis County. Municipalities in the county are either “point-of-sale” or “pool” cities.<sup>40</sup> Pool cities receive from the state a portion of sales taxes collected in other pool cities in proportion to their population, which requires cities to increase population density in relation to their desire for greater revenue. Point-of-sale cities receive back from the state a portion of sales tax collected in the city, rather than seeing that sales tax distributed to “competing” cities elsewhere in the county. St. Louis City, apart from the County, would function as a point-of-sale city were the City included in this scheme. Shrewsbury—part of this proposal’s subject area—is a County point-of-sale city, indicating that municipal leaders may be interested in increasing sales

taxes in Shrewsbury, as well as limiting the duration of any TIF district formed in Shrewsbury.

Various other financing support exists for TOD and development in general. In Missouri, Industrial Development Bonds<sup>41</sup> can provide tax-exempt bonds for industrial development subject to 1986 changes to federal tax law. Tax-exempt bonds can construct industrial facilities and even purchase equipment to outfit the facilities. These bonds may pay for land acquisition as well. When such bonds are used, the municipality often owns the facility and leases it to the industrial operator. Caution is advised, however, as Solyndra<sup>42</sup> (nationally) and Mamtek<sup>43</sup> (in Missouri) serve as disastrous, high-profile examples of public financing of industrial facilities.

In addition to bonds, other incentives exist. Property tax abatement requires a finding of blight under Missouri’s Chapter 99 statutes<sup>44</sup>. Metro pays no real estate tax on its land, however private industry and residential or other property owners in the proposal area do. Tax abatement freezes the real estate taxes on property at its pre-improvement level for a duration of up to 10 years. So, if a few single-family homes became a luxury condo development, condo buyers would pay a proportional share of the pre-improvement ad valorem taxes on their newly purchased condo for the abatement’s duration. With approval from the Missouri Department of Economic Development, a sales tax exemption can be applied for the purchase of construction materials<sup>45</sup>.

Any public infrastructure costs may also be

borne by Shrewsbury, St. Louis, or—at the station—Metro. Lansdowne Avenue in the County could receive improvements through the County’s highway department as the street is a part of the County’s arterial road system. Public-sector tax-exempt bonds may be issued for infrastructure improvements, including road diets, signals, signage, widened sidewalks, paving, drainage, etc. Great Rivers Greenway and MSD may also improve conditions through their usual funding sources without burdening in particular any users or property owners at this development site.

For this proposal’s phased development, any or all of these financing tools may be applied. As the TOD begins and continues at Shrewsbury, the various public and private developers could wisely leverage the most desirable financing mechanisms in a coordinated manner, with assistance from Metro and East-West Gateway.

# SUMMARY

## S

When examined through the lens of transit-oriented design, the Shrewsbury MetroLink station presents some unique challenges, along with some special opportunities for innovation and creativity. Though the Shrewsbury MetroLink station, tucked away in a mostly-residential area and surrounded by nearly-immutable physical boundaries on several sides, would not be considered a perfect site for implementing transit-oriented design (if such a site exists), there are still many TOD strategies that can be successfully integrated into a phased, measured approach to development. The proposal presented in this report has taken such an approach.

In order to maximize the potential of the Shrewsbury station, it is necessary to focus on the site's strengths: the proximity of the River Des Peres, a waterway in great need of investment; the potential to access both the highway and railroad easily; the current reinvestment that is occurring in the area; and the station's end-of-the-line status which contributes to its popularity. In particular, the River Des Peres, initially seen as a

great challenge, has provided an avenue for exploring the Shrewsbury site as a laboratory for environmental improvements that, once tested, may be used up and down the river. If successful, the transformation will feature the River Des Peres as one of the key aesthetic elements of the project.

Though there is a logical progression to the phases as they are presented, the phases are also semi- autonomous, and can also be taken out of turn if the right incentives are presented. For example, if a targeted funding source were to become available that made the re-investment in the River Des Peres (phase 3) realizable before the introduction of light industry (phase 2), there would be no reason not to take the opportunity that was presented.

Because of the way in which the phases were designed, each provides unique benefits to the site and surrounding community. It's when the four phases are taken in concert, however, that the project truly begins to resemble an example of transit-oriented design that is fully grounded in the realities of the site as it currently exists.



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