V. GENTRIFICATION AND THE CENTRAL CORRIDOR

SECTION INTRODUCTION by dan trudeau, assistant professor of geography

THIS SECTION'S QUESTIONS:

1) To what extent will the current residents benefit from this reinvestment in the corridor?

2) To what extent will the corridor be transformed so that it is financially inaccessible to current residents?

SECTION DESCRIPTION

The construction of light rail on University Avenue is expected to attract new financial investment to the Central Corridor. To what extent will the current residents benefit from this reinvestment in the corridor? To what extent will the corridor be transformed so that it is financially inaccessible to current residents? These questions relate to a broad set of concerns about gentrification, which is a controversial and complex process of neighborhood redevelopment.

Gentrification is controversial because it is both creative and destructive. Inasmuch as gentrification brings new investment to a place, it Neighborhood desirable. seems residents can benefit from upgraded neighborhood infrastructure. new amenities. improved and iob opportunities. Cities stand to benefit too. The reinvestment can attract higher households income and new businesses, both of which can improve the tax base of a city. The investment gentrification brings can also result in changes to the neighborhood that are unwelcome to the original residents. The investments that attract higher income households to the neighborhood can also repel middle and lower income households. Residents who rent may be displaced as landlords seeking to capitalize on real estate speculation either increase the cost of renting or sell the property to another party seeking to use the property differently. Homeowners may also face financial strains as property taxes rise prompting decisions about whether to stay or go. However, gentrification does not have to unfold this way.

Cities experience gentrification in different ways, which speaks to its complexity. In places like New York City, where developable land is scarce, the gentrification process frequently results in displacement of original inhabitants. Though, in places like Columbus, Ohio, where land is less scarce, gentrification has not generated such transformative forces. To capture these divergent outcomes, scholars have suggested that there is a continuum of gentrification. At one end. gentrification generates а moderate increase in neighborhood resulting reinvestment in little displacement of original residents. At the other end, there is an extensive investment in a neighborhood and near complete demographic turnover. Much can happen between these two extremes and the possibilities raise the hopeful question of how reinvestment in a neighborhood can be shaped in ways that improve lives and create opportunities for the original residents

too. The essays in this section explore this broad question.

While there is little doubt that construction of the light rail will bring change to University Avenue and the surrounding area, the essays in this section point out that the ways in which the Central Corridor will change are not pre-determined and shed light on opportunities and places in which reinvestment along University Avenue can also serve social equity goals.

SECTION OUTLINE

I. Who's Your Neighbor? Density and Diversity of Residential Neighborhoods in St. Paul by Bo Scarim

II. *Stops for Us* & Susceptibility to Displacement in Rondo by Dan Otte

III. Where are the gaps? by Adam Van der Sluis

IV. Gentrification's Possible Effects on the Central Corridor Nonprofit Sector by Emma Kalish

V. Brownfields: Utilizing Untapped Potential Along University Avenue by Lauren Dutkiewicz

VI. University Parking: The True Value of a Parking Space by Jesse Horwitz

xiii. Who's Your Neighbor?



I. INTRODUCTION

 \mathbf{W} hen you think about where you want to live, one of the biggest concerns is often being close to where you work, where you go to school, where your kids go to school, or wherever else you spend your days. For some people this means living right in the heart of the city where everything you need is within walking distance. For the rest of the population, though, who cannot all fit within the limits of the central city, this means a reliance on some form of transportation to get to these various locations. It could even be more desirable to live further from the central city if you live close to a public transportation line, rather than living closer to the city but requiring, for instance, two buses and a train to get downtown. Adding the University Avenue Light Rail line will make the housing and land near the new stations more accessible and therefore more desirable. While there's no way to be entirely certain about how changes to nearby neighborhoods will manifest, by looking at studies of similar transportation change in other cities and comparing the current makeup of neighborhoods around the University

Avenue line, I will here consider the kinds of changes that could occur and possible explanations for those that happen as the Central Corridor develops.

A term that often comes up when thinking about growth and development in a neighborhood is "gentrification," which is when new upper-class residents and businesses move into an area, so the area becomes more popular for continued development. There are definite benefits and problems associated with gentrification, generally depending on which side of the process one falls. For example, people who buy into areas that are on the rise in development tend benefit to economically from gentrification. The people who were living there already, however, can only benefit from the development if they can afford the changes in rent or property taxes or if they sell their homes for redevelopment.¹

On a smaller scale, though, gentrification can mean that new businesses will want to invest in an area as more people move there. This would mean new resources for the people who live in the neighborhood without it necessarily becoming so expensive that residents would not be able to afford their own neighborhoods. It is difficult to predict exactly how gentrification might develop along University Avenue, but knowing the trends that come along with it, like changes in neighborhood makeup discussed here, will help us to understand any developments that do occur in the University Avenue area.

I will focus here on the stretch of the Central Corridor that runs through neighborhoods, residential from Fairview Avenue on the West to around Rice Avenue on the East. This area is composed of parts of Rondo, Frogtown, and Summit-University. Especially with the addition of the three new light rail stops on Western, Victoria, and Hamline, this area will be highly serviced by the new light rail line. Although this change will benefit residents commuting to work and to other destinations, there will also likely be losses in housing access that generally come with such large-scale urban transportation change.²

II. BACKGROUND

Several major American cities that have recently put in light rail systems have seen increases in housing density due to new residents moving in and new construction by private developers.³ The new convenient travel option of the light rail makes the area around it more attractive to developers and other investors. Areas immediately surrounding stations tend to see the most development.⁴

Along with a developer's choice to build in an area near stations, new transportation often leads to an increase in property values close to new stations.⁵ The change in value differs by city, by the economic situation of the neighborhood and by the distance from the station. One study of new transit in Buffalo, New York, found that the value of a home within a quarter-mile of a light rail station could increase by up to \$3,000 especially if it was in walking distance to the station.⁶ Another study examined several different cities and found that values only increased in places where the new rail cut down drastically on travel times.⁷ Regardless of these differences, research has shown that new transit has a significant impact on the values of nearby properties.

Past population increases in St. Paul also saw increased diversity, at least in recent times. Over the 1990s, for instance, population growth in St. Paul included a decrease in the number of white residents and an increase in every other ethnicity, meaning that by 2000 there was almost 50% more diversity throughout all of St. Paul than there had been in 1990.⁹ It is unclear whether we will see this same breadth of diversity with the population changes that come after the addition of the light rail.

The population growth that occurred in St. Paul in the 1990s was largely because of immigrant populations moving to the Twin Cities, which indicates an ethnically diverse pattern of growth. The population changes due to the new light rail do not relate to the movement of ethnic groups, so they do not imply the same kind of neighborhood diversification. In fact, based on similar patterns of transportation change in American cities, the potential development that was suggested in low-density areas could possibly mean the kind of gentrification that draws a white, middle-class crowd rather than a diverse one. For instance, a study of plans for a new light rail line in Portland, Oregon found that most of the plans for development around their new rail were focused on connections to the central business district of the city.¹⁰ This attracts middle-class, white-collar workers to the area. Based on the

changes that have been studied in other U.S. cities, it is reasonable to hypothesize that we will see somewhat similar changes along University Avenue.

III. CURRENT DATA

According to previous work, the most highly impacted area will be specifically within a quarter-mile to a mile radius of the Avenue. Examining demographic estimates for 2010, the residential areas within this mile radius of the corridor show uneven levels of density even within a single neighborhood, as well as a diverse spread of racial backgrounds. In terms of residential density, most notably, as shown here in Fig. 1, areas of Merriam Park on the West side of the residential area of the corridor, south of University Avenue, have a far lower population density than adjacent neighborhoods, with less than 3,700 people per square mile in some areas as compared to upwards of 15,000 per square mile in nearby neighborhoods, which is as high density as areas such as Downtown East that are full of apartment buildings.

The proposed light rail stations at Fairview, Snelling, and Hamline

Central Corridor Population Density, 2010 estimate



Figure 1: Population Density

Avenues will directly service this lowdensity area. Parts of Frogtown and Rondo, on the Eastern side of this residential section, have similarly low densities, and this area is just off the proposed Rice Street station. The fact that these neighborhoods have areas with lower residential density and are bordered by future light rail stations means that they could be potential sites for development in the near future.

Interestingly, some of these areas with lower residential density also have higher levels of diversity, specifically of Black and Asian populations, as compared to surrounding areas, as shown in Figures 2, 3, and 4 on the following page. The parts of Merriam Park that have lower density still have a majority white population, similar to surrounding neighborhoods, but nearly 25% of these areas' residents are Black, as shown in the charts of diversity on Fig. 2, South of the Fairview and Snelling stations for instance. This makes the area considerably more racially diverse than many of the neighborhoods directly adjacent to it. The noted areas of Frogtown and Rondo have nearly equal proportions of White, Black, and Asian residents. and in some areas even a majority of Asian residents as shown in Figures 3 and 4. The area around the Rice Street and Capitol East stations, which is lowdensity, is also highly diverse in some places, as shown in Fig. 4. In fact, according to one measure of diversity based on the 2000 Census, these two neighborhoods have some of the most racially diverse mixes of residents in St. Paul.⁸ Many would argue that it is the diversity of these neighborhoods that makes them so unique and it is hoped that the addition of the light rail will not change that quality.

Central Corridor Racial Diversity, Section 1



Figure 3: Middle section Diversity





Figure 4: East section Diversity



Figure 2: West section Diversity

IV. REACTIONS TO THE LIGHT RAIL

Many current residents, especially in Frogtown and Rondo, worry that the Light Rail will cause major changes in neighborhoods their due to gentrification. In interviews by Public Radio News, Minnesota residents of the Frogtown community expressed fears that the redevelopment after the new light rail would mean that neither small businesses nor residents would be able to stay in their own neighborhood because of rising prices pushing developers and for reconstruction.¹¹ An opinion piece in the Star Tribune reveals similar fears by residents of Rondo, who, like Frogtown residents. saw the construction of I-94 and the effects that had on displacing residents and businesses who couldn't afford the new higher prices. The former president of the Metropolitan Council, Peter Bell, claims that any increase in prices won't be enough to push residents out, and that there are enough community groups working to keep businesses especially accessible during construction, that the light rail won't threaten their livelihood. The residents themselves, though, worry that the planners can't foresee all of the effects

of the construction of the whole new light rail line.¹² While it may turn out that the fears of residents will not come true, they should not be discounted in the preparation for the new construction.

Given the research highlighted here that was conducted on the aftereffects of similar projects in several other American cities, the results of the University Avenue light rail cannot be so easily predicted. Factors related to the prices of new development or changes in value of existing properties will determine how large the changes a neighborhood sees will be. The differences in current population density among neighborhoods will determine where this change could possibly take place. Styles of marketing and new socioeconomic makeup of neighborhoods will determine who will benefit and who will be forced out. If development is limited to some new commercial and residential construction on currently vacant land, the change could develop solely as an improvement to the appearance and commerce in a neighborhood, which would be purely beneficial to nearby residents. If, however, development extends further to drive up property

values enough, we could expect to see fundamental changes in the kinds of businesses that would line the Avenue and the types of people who would buy into the neighborhood. The extent of these effects will make up the type of gentrification that we will see after the addition of the new light rail along the University Avenue corridor and will determine how people's daily lives throughout that space will change with it.

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xiv. Stops for Us and Susceptibility to Displacement in Rondo

by dan otte



Chapter Outline:

- I. Introduction
- II. Light Rail and Gentrification
- III. Gentrification-Induced Displacement
- IV. Homesteading in Rondo

I. INTRODUCTION

One of the more celebrated aspects of the Central Corridor Light Rail initiative has been the success of the grassroots *Stops for Us* Coalition in ensuring the presence of three additional stops between Snelling Avenue and Rice Street. The inclusion of these stops is a victory for current residents, increasing the number of stations in Rondo to five—at Lexington Parkway, Victoria Street, Dale Street, Western Avenue, and Rice Street—and likely a victory for the success of the project, as well.

An extensive survey of the sixteen large U.S. cities that invested in light rail between 1970 and 2000 found that "the primary social benefit associated with new rail lines is that they may significantly reduce trip times," as the majority of the users were former bus riders.¹

However, as favorable as this more comprehensive service will be for Rondo residents, it also creates a rather troubling paradox: much evidence exists to suggest that light rail stations prompt gentrification in surrounding areas. Furthermore, gentrification that occurs at any substantial level results in the displacement of original residents, as gentrifiers move in and replace them.

Given these facts, then, might there be unintended consequences of the Stops for Us campaign that are counter to its own goals? That is, will the effectiveness of the campaign in ensuring these additional stations ultimately drive out the very residents whose well-beings the campaign had sought to benefit? At this stage, any potential answer would be speculative at best, but this chapter at the very least seeks to present evidence as a benchmark for revisiting this question at a later date, and to shed light on affecting factors potential the susceptibility of Rondo residents to displacement.

The original Central Corridor plans intended just two stations servicing this stretch of University one at Dale Street and the other at Lexington Parkway—resulting in a mile between each station in the Frogtown and Midway neighborhoods. LRT planners justified this lack of

service as necessary for meeting the Cost Effectiveness Index-efficiency standards requisite for crucial federal funding. However, with memories of I-94 construction and the resultant destruction to the Rondo community still lingering, it was nonetheless widely perceived as something of a slap to the face. A study by the District Council Collaborative of St. Paul and Minneapolis found that similar projects in other cities situated stations between .25 and .78 miles apart in neighborhoods sharing characteristics with the area.² Academic studies. furthermore, have widely found that usage rates drop off with more than a quarter mile distance from a station and after half a mile of distance the station loses most of its draw. With stations spaced a mile apart, no part of University Avenue itself would be outside this crucial half mile radius, but stray any to the north or south and large swaths of the corridor would be underserved.

As it happens, however, it is these areas to the north and south where the majority of area residences are located (since University Avenue itself, with a few exceptions, is a predominantly commercial strip), which reinforced the sentiment that the fabric of Rondo would again be disrupted for the sake of a major transportation project that would offer scant benefits to the neighborhood populace. In response, the Stops for Us Coalition formed, seeking the addition of stops at Hamline Avenue, Victoria Street, and Western Avenue, for just half a mile of distance between stations. Median income in the thirteen census tracts abutting and including University Ave in what can broadly be considered Rondo ranges as low as ~\$13,000, and only once exceeds the overall Ramsey County median income of \sim \$52.000.² Since Rondo is comparatively less wealthy than the metro area overall and lower income persons are more typically reliant on public transportation, the ideal would be to provide more service here, not less. The Coalition, composed of residents and local advocacy groups, was ultimately successful in securing these additional three stations, along the way winning an EPA award for Environmental Justice and ending the rigid federal utilization of the Cost

Effectiveness Index that had originally precluded their existence.³

II. LIGHT RAIL AND GENTRIFICATION

The assumption of gentrification resulting from proximate light rail stations comes from the multitude of studies done on the subject, which frequently (but not always) suggest that stations have a largely positive effect on nearby land values.⁵ Among these, a 2001 study by Knaap et al. of land value changes near planned light rail stations in the Portland, Oregon metro area found that land values within half a mile of proposed stations increased 70 percent within a year of the announcement, although at 2 years values had regressed to 20 percent higher than pre-announcement levels.⁶ A 2007 study by Hess and Almeida, conducted on residential parcels within a half mile of Buffalo, New York light rail stations concluded that "every foot closer to a light rail station increases average property values by \$2.31," which translates to the station adding \$1,500 to \$3,000 to the value of parcels within a half mile. The 25-year-old

Buffalo LRT, with 14 stations along its 6-mile length, has a ridership that can be assumed to be quite similar to that of the Central Corridor LRT because of its relative shortness and the fact that it is also contained entirely within the central city (as opposed to a radial cityto-suburb commuting line).⁷ Closer to home, the University of Minnesota Center for Transportation Studies determined that the Hiawatha Line led to a 20 percent increase in the value of single family homes within a half mile of stations relative to that of home in Southeast Minneapolis overall (from 16.4 percent less valuable before the line opened in 2004 to 4 percent more valuable afterwards).⁸

Notably, however, in the Buffalo study, 4 of the 11 stations with a significant number of residential parcels, property value decreased with distance nearer to the station, suggesting that the positive relationship is likely, but dependent on a variety of other factors. In a comparable study of the MARTA in Atlanta, which again found a generally but far from universally positive effect of stations on residential property values, Bowes and Ihlanfeldt propose four station

characteristics that determine the effect.⁹ The two positive factors are the 'access advantage' it provides and the ability to attract desirable services (i.e. restaurants and retail) to the station area. The two corresponding negative 'negative externality factors are effects,' like noise, pollution, and unsightliness of the station, as well as a potential increase in crime due to the facilitated access for neighborhood outsiders. The Central Corridor stations seem inclined to avert these negative effects, however. A considerable amount of attention in the station area plans has been directed towards mitigating any potential negative externalities, with efforts to make stations and the surrounding streetscape aesthetically pleasing (such as recruiting artists to design locally relevant station art) and reduce noise in residential areas.¹⁰ Moreover, since the Rondo area is lower-income relative to the rest of the Corridor, its stations are unlikely to become particular targets for external criminals.

The positive value factors, therefore, should outweigh their negative counterparts. Add to this the characteristics of Rondo that may make it particularly primed for gentrification—considerable architectural merit and close proximity to downtown St. Paul—and displacement becomes a very real possibility.¹¹

III. GENTRIFICATION-INDUCED DISPLACEMENT

It is worth considering, then, the processes of gentrification that lead to the displacement of residents. Displacement pressures affect both homeowners and renters, although at different stages of the neighborhood's gentrification. Homeowners can be priced out of a neighborhood as their assessed home values rise, leading to an increase in property taxes that for the elderly and/or low-income residents simply may not be feasible to pay. The effects can be further exacerbated by neighborhood services becoming more expensive, to appeal to the gentrifying clientele.¹² The effects on homeowners, however, are generally longer-term and. though significant, are considerably less difficult to withstand than the pressures felt by renters.

Renters can feel a similar displacing pressure in the form of rent increases, which occur for similar reasons as (and because of) the property tax increases, but more immediate are the effects of speculator and developer purchases who buy rental properties with the intention of converting them to owner-occupied housing. If this conversion is immediate, the renter is displaced, but even if the conversion is prolonged, the speculator or developer landlord frequently will have little interest in keeping the initial tenant (and indeed all of the Met Council plans are concerned with what sort of development will happen by 2030; the understanding exists that changes to will University Avenue come gradually). Three theorized reasons for this are that the initial rent at the time the property is obtained is insufficient to account for maintenance of the property-particularly if the new owner is a business unaccustomed to leasing properties, that the landlord fears litigation if the housing is substandard or violates housing codes, and finally that redevelopment is greatly facilitated by the property being vacant.¹³

Actual studies of displacement due to gentrification are rare, since "by definition, displaced residents have disappeared from the very places where researchers and census-takers go to look for them."¹⁴ Therefore, one cannot look to comparable cities to see what kind of displacing force gentrification (let alone gentrification stemming specifically from light rail lines) has been. However, because displacement is, anecdotally at the very least, known to occur and be potentially the most severe repercussion of gentrification, and because it is known to act most quickly and forcefully on renters, an analysis of the home ownership patterns in Rondo is helpful in assessing the susceptibility of neighborhood residents.



Daniel Otte: 4/14/11 Data Source: Met Council; Projection: NAD83 UTM Zone 15N

IV. HOMESTEADING IN RONDO

The attached map highlights the 4,529 residential parcels located within a half mile of the five proposed Rondo-area stations (again, at Lexington Parkway, Victoria Street, Dale Street, Western Avenue, and Rice Street). The occupied, homeowner or 'homesteaded,' parcels are depicted in blue, while the renter-occupied, 'nonhomesteaded,' parcels are depicted in red. Homesteaded parcels account for 2,719 of the plots, or 60 percent, while non-homesteaded 1.810 parcels comprise the remaining 40 percent, meaning there is a considerable amount of more easily gentrifiable housing stock.

Of non-homesteaded the properties, the vast majority were owned by low volume landlords, i.e. individuals who own and lease typically a single property, or sometimes a handful. Only 18 property owners possessed more than 5 parcels, and of these 18 only 3 owned more Housing than 20: The & Redevelopment Authority of St. Paul

(42), the St. Paul Public Housing Agency (32), and DRB #24 LLC (22). The HRA, while likely more sensitive to public concerns about displacement than a typical developer, is nonetheless a development agency and as such the probability of the residents of these parcels being displaced is rather high. The other two high volume landlords, however, offer better prospects for their current tenants-public housing for obvious reasons, and DRB #24 LLC because it functions to rent out properties to those who would be otherwise homeless at minimal costs and without requisite background checks that many residents would otherwise fail.¹⁵ These two landlords are the exception, however, and the vast numbers of owners who seemingly rent for marginal profit on the side or because they have ended up with an extra property would seem to be much more likely to be enticed by significant lump sum profits that developers might offer.

To get a better idea of the exact make up of the landlords, 50 of the non-homesteaded properties were randomly sampled. Of the owners represented, 37 were individuals, 7

were companies (one was represented twice), 4 were public organizations, and 1 was a foreclosed property in the possession of a bank. These numbers are rather consistent with the sentiment ultimately proffered above: the prospects of displacement will come down to the actions of individuals, who for better or worse typically have less of a will to retain their tenants than does a public organization, and less of a will to retain their properties than does a real-estate management company. Additionally, 53 (or approximately 3%) the 1.810 non-homesteaded of properties had been foreclosed upon and therefore were in the possession of banks. This is a minor but not insignificant number, as there is virtually no incentive whatsoever for the banks to maintain the status quo in these properties.

Should gentrification occur, then, there exists ample housing stock for relatively easy conversion to owneroccupied housing. Susceptibility of individual parcels is obviously dependent on just how far from a station it is, which bodes well for the non-homesteaded housing nearer to Minnehaha Avenue at the northern extent of the study area, as well as that south of I-94. where effective (network) distance from the stations is higher than physical distance, because of the dearth of connections over the highway. Additionally, the higher proportion of homesteaded parcels proximate to and west of Lexington Parkway make change there relatively less likely than in the areas to the east. In these areas to the east, though, especially around Dale Street, the map shows high numbers of often contiguous, non-homesteaded parcels, from which we can infer the greatest susceptibility to displacement.

This is not to say that conversion will or will not occur, but the possibility should certainly be accounted for. Ultimately, however, gentrification does not always occur even in areas that burgeon with the potential for it, and in the short-tomedium term, the additional stops will be of great benefit to area residents. Furthermore, the awareness brought by the Stops for Us Coalition to just transportation policy and the residents of Rondo would seemingly bode well for just policy implementation in the future, should displacement eventually begin to occur.

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xv. Where Are the Gaps?

by adam van der sluis



Chapter Outline:

- I. Introduction
- II. Rent Gap Theory
- III. Modeling Gentrification Risk on University
 - Avenue
- IV. Analysis
- V. Results
- VI. Conclusion

I. INTRODUCTION

As the construction of the light-rail along University Avenue has begun, there is much that needs to be taken into consideration as the areas located near the corridor begin to change. The construction of a light-rail line in an urban area should make the area better connected, making it easier to travel along the Central Corridor as well as to areas of the city that are not as readily accessible. There are many other lessobvious impacts that can happen as a result of this increased connectivity.

One of these impacts is the potential for new development in the areas immediately surrounding the Corridor. The areas most likely to see high levels of development are those that are located nearest to one of the stations along the line. A major concern that should be taken into account as these changes take hold is the possible consequences of gentrification. But which areas along the Central Corridor are at the highest risk of gentrification? In this chapter, the basic principles of the Rent Gap Theory will be used to answer this question. I will look specifically at light-rail station areas because of the increased access and

development associated with these spaces. The most recently added station areas at Hamline Avenue, Victoria Street, and Western Avenue are of particular interest.

II. RENT GAP THEORY

In his seminal article titled, "Toward a Theory of Gentrification: A Back to the City Movement by Capital, not People," Professor Neil Smith lays out the basics of the Rent Gap Theory. This article explains gentrification as an economic process. Smith defined the rent gap as "the disparity between the potential ground rent level and the actual ground rent capitalized under the present land use."¹ This rent gap then makes reinvestment in inner cities attractive because of the potential for earning a substantial profit. To be clear, the rent Smith refers to is not the sum of money paid to a landlord each month; instead it this estimated value of land. Actual ground rent would be the current estimated value of a land parcel. Potential ground rent, then, is the estimate of what a land parcel's value will be at its best and fullest use.

When the gap reaches a certain size, developers gain a substantial profit by reinvesting in the under-

valued properties and redeveloping them, oftentimes for new users of the land. These actions then close the gap by increasing the actual rent and lifting it up to a level much closer to the potential rent. With this closing of the gap, however, comes higher rents and mortgages for new residents. Though the existing residents in the area may not experience higher prices in the short term, the value of their land will nevertheless increase. For those from lower-income backgrounds, this can create severe problems, as the taxes also they must pay increase. Additionally, this process is often accompanied by de-industrialization, reducing the number of jobs available to the working class.²

It is quite easy to see how the story of gentrification in the context of the Rent Gap Theory could unfold along University Avenue. At this moment at the very beginning of construction, the land areas around the corridor are experiencing an increase in value, an increase which began shortly after the introduction of construction plans. Since a certain level of disinvestment had already occurred in this area, the actual rent for many of the land parcels is very low, creating a large rent gap. Now, as the prospects of development are becoming more appealing with the construction of the light-rail, that gap will very soon be closed as new developments will bring up the actual rent. This is where the rent gap theory is useful for predicting specifically where gentrification may occur.

The major limit to the Rent Gap Theory is in the definition of actual rent and potential rent. Nearly all studies that incorporated the Rent Gap Model used a unique method of defining actual and potential rent in an effort to find the perfect model. A problem with the way in which Smith uses actual and potential rent is that the two end up being very different units of measurement.³ In an economic sense, the "highest and best use" of land is a function of uses on surrounding sites. This would be the use to which the site would be put if it were bare. The problem is that land rent is often defined as "the highest latent opportunity cost of land."⁴ This means that Smith's method makes potential and actual rent essentially equivalent.

III. MODELING GENTRIFICATION RISK ON UNIVERSITY AVENUE

To avoid having to make inaccurate predictions of what potential rent will be for each parcel in the studied area, I use a variation of the Rent Gap Model. I will expand on Smith's model using a different sort of rent gap that will still act as an adequate indicator of areas that are susceptible to gentrification. The two sets of data, taken from the land parcel data made available by the University of Minnesota's Center for Urban and Regional Affairs are: 1) Estimated Market Value of Land, and 2) Estimated Market Value of Buildings. This data is divided by land parcel.

In the classic use of the rent gap theory, potential rent is calculated in essence by estimating the value of potential development of the area. The variation I will use measures potential for development by comparing the Estimated Market Value of Land and the Estimated Market Value of Buildings for each parcel. Together, these two measures make the Total Estimated Market Value for a land parcel. I will refer to these variables simply as Land Value and Building Value for the remainder of the paper. In the case of Land Value being higher than the Building Value, there is high potential for gentrification; the greater the difference between Land Value and Building Value (the gap), the greater risk there is of gentrification. Conversely, if Land Value is lower than Building Value, there is low potential for gentrification. When Land Value is lower than Building value, a bigger gap means there is a lower risk of gentrification.

The land area I will be using will span from Snelling Avenue to the West and Rice Avenue to the East. These land parcels include any use: commercial, residential, or industrial. Any land parcel that borders University Avenue will be used in this study; conversely, any parcel that does not border the Avenue will not be used. It would have been difficult to include any more of the Central Corridor to include land parcels located further away from the future location of the light-rail line. It was most important to include the areas most immediately connected to University, since we can assume that they will be the most heavily impacted.

The reason this specific stretch was chosen was because of the number and concentration of proposed light-rail



University Avenue Lightrail Corridor

station locations. Seven of the eighteen proposed stations locations are included in this area. Additionally, this area is of specific interest because it includes the three stations at Hamline Avenue. Victoria Street, and Western Avenue that were not in the original light-rail plans. These stations were added due to concerns that the neighborhoods in the vicinity of the proposed stations were being overlooked, and would not receive the benefits associated with light-rail transit, such as greater connectivity and economic development.

With the construction of lightrail, the station areas are those that often see the most development. In an article titled, "Do Plans Matter? The Effects of Light Rail Plans on Land Values in Station Areas," the authors Knapp et al show how the construction of and especially the plans for light rail investments have positive effects on land values in proposed station areas. Their findings suggest that, in order to capitalize on the high land value by making the highest profit they can, developers will encourage the building of high-density transportation-oriented development. That development would take priority over low-density housing, which is currently in place in the

neighborhoods near to the most recently proposed light-rail stations.⁵ For these reasons, the most-recently proposed station areas are important to study because of the strong possibility for gentrification.

IV. ANALYSIS

Before applying my version of the Rent Gap Model, I wanted to see if the study area as a whole could be considered an area at risk of gentrification. To measure this, I had to see if there was a statistically significant difference between Land Value and Building Value across the entire study area. The average Land Value is \$448,471.09, while the average Building Value is \$305,668.29. With a difference of \$142,802.80, it would seem that the area is obviously at risk of gentrification. However, an analysis of variance (ANOVA) test produces a p-value of 0.072. This pvalue basically puts the difference of Land Value and Building value directly between being statistically significant and not statistically significant. Using a significance level of 0.1, the difference would in fact be statistically significant. Thus, the study area is at risk of gentrification.

It is important to note that, just because the area as a whole can be considered at risk of gentrification, does not mean each individual land parcel will be at some risk of gentrification; some parcels will be at extreme risk of gentrification (much higher Land Value than Building Value) while others will be at almost no risk of gentrification (much higher Building Value than Land Value).

V. RESULTS

Using the method described above, 173 parcels of land had higher Land Value than Building Value, while the remaining 114 parcels had a lower Land Value than Building Value. Summarizing my findings in this way paints a black-and-white picture that does not accurately portray the varying levels of gentrification risk within the study area. Instead of producing the difference in Land Value and Building Value for all of the 287 studies land parcels, the map on the next page shows the pattern of land parcels and their varying levels of gentrification risk.

The parcels on the "high risk" end of the spectrum have a much higher Land Value than Building Value.

Rent Gaps Along University Avenue



Sources: ESRI, MetroGIS, Claritas Projection: UTM NAD83 Zone 15

Vice versa, the parcels on the "low risk" end of the spectrum have a much lower Land Value than Building Value. The land parcels in the middle of the spectrum, then, have similar Land and Building Values. It is most useful to look at the study in three groups: 1) Snelling Avenue to Lexington Parkway, 2) Lexington Parkway to Dale Street, and 3) Dale Street to Rice Street. Each section has their own set of characteristics that translate into very different patterns of gentrification risks.

Snelling Avenue to Lexington Parkway

Of the three study area sections, this was the most developed and thus the least at risk for gentrification. However, in looking at the studied stations areas, The Snelling Avenue station area looks to be perhaps the most susceptible to gentrification. In fact, the almost the entire block to the east of Snelling has at least a moderate risk of gentrification. Past the first block, though, there is very minimal gentrification risk. This section has relatively large land parcels. Looking at the study area as a whole, it seems that, in most cases, the larger land parcels have a low risk of gentrification. Chain

stores such as Wal-Mart, Target, and Rainbow foods are currently located there. These types of buildings and land-uses would bring their connected land parcel closer to "the best and fullest use of the land."

The Hamline station area, located in the middle of this stretch, stands in stark contrast to the Snelling station area, in that nearly all of the surrounding land parcels are at low risk of gentrification. This pattern of low risk generally continues through to the Lexington Parkway station area.

Lexington Parkway to Dale Street

The Lexington Parkway station area begins a stretch with the highest concentration of land parcels at higher risk of gentrification. Like Hamline, The station area itself has a significant buffer of land parcels with a low risk of gentrification. Directly to the east, there are some land parcels at very high risk of gentrification, starting a pattern that continues through most of this section. This is the stretch of University Avenue where there are many smaller businesses who are at risk of losing significant numbers of clientele during the construction of light rail. The Victoria Street station area is located in the middle of this stretch of small businesses, and thus has many land parcels surrounding it with at least a moderate risk of gentrification. There is clearly potential for gentrification here. As the pattern of small businesses and the accompanying high level of gentrification risk continues through the rest of this section, there is a scattering of land parcels with low risk of gentrification. Still, this section as a whole has the most consistent pattern of high gentrification risk.

Dale Street to Rice Street

The Dale Street station area continues a trend of station areas acting as a representation of the patterns in the section they are located. At Dale, there is a mix of risk levels for gentrification. This section contains a seemingly random mix of gentrification risk. Land parcels with high risk are interspersed with land parcels with very low risk. Again, size of the land parcel seems to play a role in the level of risk, as the larger parcels are generally at lower risk of gentrification than the smaller land parcels. The Western Avenue station area has a mix of risk levels similar to those at Dale.

Though this section of the study area has a seemingly random distribution of risk levels, it appears that the lowest risk is on the borders of this section, at the Dale Street and Rice Street station areas. Moving in towards Western, the risk of gentrification generally trends upwards. Though there is definitely a mix surrounding the Western station area, it is clearly the point with the highest risk of gentrification.

VI. CONCLUSION

Though the pure Rent Gap Model was not used to make predictions on gentrification, there are some clear conclusions to be drawn from these results. Looking at the different sections of the Central Corridor, areas with the most development are at the lowest risk of gentrification. The section from Snelling Avenue to Lexington Parkway is the most developed, in large part because of the large chain stores located in that area. As a result, very few land parcels there are at high risk of gentrification. In contrast, the section from Lexington Parkway to Dale Street has mostly small businesses, with little large-scale development. There, the risk of gentrification is high. A mix of risk exists in the section from Dale Street to Rice Street. This section has some land parcels with more development interspersed with small businesses similar to those in the previous section.

The station areas of the study area are of particular interest because of the associated increase in access and development. Of all the station areas, Hamline Avenue had the smallest risk of gentrification. This is particularly interesting because this was one of the station areas that was most recently added to the construction plans. It is a different story, however, with the other recently-added station areas at Victoria Street and Western Avenue. With the possible exception of Snelling Avenue, these two station areas have the highest risk of gentrification. This is because there is little current development in their surrounding areas. The plans for a station at these points, then makes the possibility of development all the more likely.

It is important to point out in these conclusions that areas with low risk of gentrification could still be gentrified. These land parcels are those where the Building Value far exceeds Land Value. But developers could see even greater potential in developing a given land parcel further, even if it already has substantial development. Still, it is important to realize that there are areas along the Central Corridor that are at high risk of gentrification. The station areas at Victoria Street and Western Avenue need particular attention. These station areas were added in the hopes of benefitting the surrounding neighborhood. But if the negative effects of gentrification are not taken into account, these station plans my ultimately cause more harm than good.

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xvi. Gentrification's Possible Effects on the Central Corridor Nonprofit Sector

by emma kalish

Chapter Outline: I. Introduction II. Existing Research III. The Central Corridor IV. Conclusion

I. INTRODUCTION

he aim of this essay is to explore some of the possible effects that the construction of the light rail could have Corridor. Central the looking specifically at the nonprofit community organizations in the area. Because the light rail has not been constructed yet, it is hard to estimate what the consequences will be. However, many believe that the project will spur redevelopment, potentially leading to gentrification. I will be looking at the range of effects that gentrification might have on the organizations in the area.

While University Avenue is home to over one hundred non-profits, I focus on a selected subset of organizations. These organizations provide tutoring, classes, or other educational services directly to community members. Location can be especially important to these groups, because their clients typically need easy access to their services. Other organizations, however, serve as regional centers for specific groups, especially ethnic minorities. Remarks in this chapter apply to potential impacts on these education-focused community organizations overall, and great care should be taken in reflecting on what the conclusions may mean for specific organizations.

Using a combination of previous research on the subject and empirical data about the Avenue, I conclude that there are several possible outcomes for specific agencies. Variation in property value, ownership status, and organization size will influence the impact and outcomes of gentrification, but if widespread neighborhood change occurs it is likely that all organizations will have to adapt in some way.

At the onset, I want to clarify that these predictions are simply that – predictions. While it is possible that my estimates will be borne out, there are many potential intervening factors and issues not considered in my analysis. It is quite possible that something completely different might happen. This analysis is not meant to compel action but rather to provide some indication of factors that may influence outcomes of the construction, as an input into future discussion and planning. First, I will discuss what scholars have written about the movement of nonprofits and the effect of gentrification. I will then discuss some of the variation across nonprofits in the area. I will talk about ownership and rental patterns, building uses and values, as well as other empirical data that could provide insight. Finally, I will talk about the possible outcomes of gentrification, as well as general conclusions about the potential for gentrification.

II. EXISTING RESEARCH

To understand what could happen if gentrification occurred, it is important understand exactly what to gentrification means. Gentrification is "the arrival of wealthier people in an existing urban district, a related increase in rents and property values, and changes in the district's character and culture."¹ Gentrification happens all over the country, though sometimes it is not seen as gentrification. It may called urban renewal be or redevelopment or simply neighborhood

change. In news media and scholarly discussion, gentrification certainly has a negative connotation, generally thought to mean the displacement of residents current (businesses. homeowners, renters, etc). However, there are also positive effects of gentrification, both for people already living in the area and for the new developments and people coming in. Gentrification can lead to reduced crime and increased investment in the neighborhood. It can bring in development that improves the quality of life for everyone in the area. Commercial activity such as grocery stores and pharmacies, improved schools, and higher property values are all often products of gentrification. But those positives have negatives too. These positive changes make the neighborhood more desirable, which then increases property values, property taxes, and rents. The negative connotations of gentrification then can become a reality - people may lose their homes, businesses may lose their leases, and the current residents may be forced out.

An article written by Geoffrey DeVerteuil explains that central cities

are good locations for social services because of their "high accessibility...and visibility," meaning that it is easy for people to both see and get to the organizations.² Especially with the light rail, University Avenue will be highly visible to passerby and increasingly easy to get to. DeVerteuil identifies why this is problematic, as well. He explains that the central location will "intuitively render them vulnerable to being displaced" because gentrification in desirable areas can raise rents. He also explains that gentrification can increase community opposition to certain types of organizations, because the people moving in may not see the people served by the organizations as the types of people the want in their neighborhood. Gentrification has also been shown to shrink the "servicedependant population" as resource poor people move out of the area. All of these changes could happen on University Avenue. However. University does not currently function as a real downtown, and that is not likely to change in the near future. This article tells us some possible results of

gentrification, but does not discuss the differences within the nonprofit sector.

A case study from Chicago found that organizations facing gentrification have several choices.³ They can choose to move to a new locale, perhaps close to where the populations they serve have relocated. Another option is to expand their service geography so that they are not drawing only from the immediate neighborhood. This is more of an issue if the populations served leave but the organization has the resources to remain in the area. This article also noted that organizations can shift the services they are providing to better meet the needs of the new residents. The impact on the organization, then, depends greatly upon the type of organization. Another study from the Boston area identifies the size of the organizations and the speed of the neighborhood change as the largest factors influencing social service agencies.⁴ Using a specific case study, the author explains that a smaller organization will face less pressure from the gentrifiers to relocate, because the clients will comprise a smaller portion of the neighborhood

population. A slower process of gentrification will make remaining in operation even easier, because new residents will not be expecting dramatic changes. In contrast, a large organization attracting many clients daily could face more opposition from the surrounding area, especially if the demographic change happens more rapidly and people expect their environment to change similarly.

More general studies drawing from more than one case support these conclusions as well. Stater writes, "the variety of needs and interests in the population play an important...role in the nonprofit landscape."⁵ This variety could be anything from age or income to race or the number of kids in the family. The article goes on to explain that the more diverse the population of an area is, the more varied the nonprofits will be. However, this depends on the type of population diversity. The study found that in areas of diverse income, as University Avenue is likely to become, there was likely to be a wide range of service agencies. Prescriptively, understanding the different ways that the population could affect agencies will allow groups

to decide the best course of action for continuing their mission. As outlined above, there are several factors that can influence the ability of an organization to remain in service, and several ways that organizations can respond to challenges.

III. THE CENTRAL CORRIDOR

In this section. I will discuss the circumstances of agencies along University Avenue. Focusing on the factors identified in previous research, I will assess the possibilities facing organizations in the Central Corridor. The organizations I will focus on range from branches of national nonprofits to small organizations working out of a home. These agencies provide a wide range of services from reduced price childcare to English education and more. Many of the organizations are specifically targeted towards an ethnic group, where others focus on outcomes for children of families with limited means. Some of the nonprofits own their spaces, some lease from other nonprofits, and some rent from a commercial developer. All of these

factors and more will influence how possible changes to the corridor will affect their operations. Because there is such great variance along the Avenue, I am focusing this analysis on educational nonprofits. Educational nonprofits offer services such as citizenship classes, and preschool, seminars. While these parenting organizations are clearly wide in scope, I have grouped them together because they share a common need - their clientele need to be able to access the facility. This is different from an advocacy organization that may not be providing a direct service to clients.

Even across direct service organizations like these educational nonprofits, there is huge variation. organizations, Some such as programs, afterschool are verv neighborhood based. Most of their clientele come from the neighborhood, and thus their location is very important. For these organizations, the threat of displacement could mean the end of their organization or a complete turnover in clientele. Other agencies are regional destinations. This is especially true for cultural or ethnic organizations that target the needs of a certain

		Total			Land & building		Share/individual
Organization Type	Zip	Revenue	Total Assets	Owner	value	Own/rent	building
Child Development	55103	1,600,000	300,000	Other Nonprofit	\$1,000,000.00	Rent	Individual
Cultural							
Organization	55104	\$300,000	\$200,000	Private	\$2,600,000.00	Rent	Share
Family							
Development	55104	No Data	No Data	Private	\$8,000,000.00	Rent	Share
Cultural							
Organization	55104	No Data	No Data	Private	\$7,300,000.00	Rent	Share
Child Development	55414	\$1,300,000	\$900,000	Tenant Nonprofit	\$900,000.00	Own	Individual
Cultural							
Organization	55104	\$300,000	\$200,000	Private	\$2,000,000.00	Rent	Share
Child Development	55114	\$700,000	\$800,000	Private	\$2,000,000.00	Rent	Share
Cultural							
Organization	55103	\$2,500,000	\$1,200,000	Tenant Nonprofit	\$2,000,000.00	Own	Individual
Family							
Development	55104	\$2,300,000	\$700,000	Tenant Nonprofit	\$1,800,000.00	Own	Individual
Cultural							
Organization	55103	No Data	No Data	Tenant Nonprofit	\$440,000.00		Individual
Cultural							
Organization	55104	\$1,700,000	\$600,000	Tenant Nonprofit	\$1,000,000.00	Own	Individual
Adult Education	55114	\$2,200,000	\$1,200,000	Private	\$3,200,000.00	Rent	Share
Family							
Development	55104	\$43,000,000	\$75,000,000	Tenant Nonprofit	\$4,000,000.00	Own	Individual
Child Development	55414	\$600,000	\$400,000	Private	\$6,000,000.00	Rent	Share

All numbers and other identifying information have been removed to protect the anonymity of the organization. All data was accessed through parcel-level census data or from the center for charitable statistics.

population. For these organizations, it is more likely that their clients come from across the region or county, and would continue to do so if the center moved. Culturally specific organizations, however, will have less ability to adapt to changes in the surrounding population. If they are, in fact, serving a large cultural population in a certain area and that population is displaced due to increased property values, the organization may face pressure from their clients to relocate as well. Another factor that will influence an organization's staying power is their ties to their specific building. Several of the nonprofits in my study group own their own buildings, either on their own or through the umbrella nonprofit they are associated with. These organizations much more stable than are organizations that rent. If property values increase in the neighborhood, it will affect property taxes, but not much else for agencies occupying their own buildings. Because the average budget for the organizations in the study group is well over one million dollars annually, it is likely that they would be able to make adjustments to find the resources to pay this tax increase.

Organizations renting could have more problems. Several of the organizations that are renting their spaces are renting from foundations or other nonprofit corporations. These organizations in similar are circumstances to those owning their space, because it is unlikely that their landlords would terminate their lease in order to redevelop the space. The most vulnerable organizations are those renting from private. for-profit landlords. If property values increase in the area, there are a few possible courses of action for the landlords. They can increase the rent only as much as taxes increase. This would likely be manageable for organizations. Another possibility is that the landlord

could increase rent to the new market rate, which would likely be much higher if demand for rental space in the area increased. This could be manageable for the organizations, depending upon the magnitude of the increase and the speed at which the neighborhood changes. The change could be too much for the organization, forcing them to relocate either within the area or to somewhere new. A third option is that the landlord could decide that the largest profit could be made through redevelopment. Redevelopment could mean selling the property to a developer, or redeveloping it themselves. In either situation, the landlord could evict the



tenant with limited notice. It is difficult to predict whether this will happen on University. University Avenue has quite a bit of vacant space that could be redeveloped before existing structures were replaced. In addition, the gentrification that could happen is likely to be relatively slow given the current uses of the corridor. However, it is not infeasible that this redevelopment would become a real threat to renting agencies.

IV. CONCLUSION

If gentrification occurs, organizations will be faced with a variety of choices. Those who are able to remain in place will have to decide if they want to, and those who are unable to retain their locations will have to choose a next step. As the literature suggests, it may be possible to adapt to the changing demographics and continue operating in the same location. It may be that any gentrification that occurs will not be influential enough to change the client base of an organization. Or it may be that an agency will relocate with its clients, which would not necessarily be a negative outcome. Gentrification has

been predicted for the central corridor, but no one is sure that it will happen or what it will look like when it does. After the construction of the light rail, an assessment of the characteristics of organizations those that moved. adapted, or remained will be able to tell us a lot about the shape of the gentrification and of the neighborhood. For now, however, we simply predict that change will occur, and highlight some of the factors—both demographic and organizational-that are likely to influence outcomes for nonprofits and the people they serve.

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xvii. **Brownfields:**

UTILIZING UNTAPPED POTENTIAL ALONG UNIVERSITY AVENUE

by lauren dutkiewicz

Chapter Outline:

- I. Introduction
- II. Benefits & Challenges of Cleanup
- III. Brownfields and Gentrification
- IV. Thinking About Redevelopment
- V. Conclusion

I. INTRODUCTION

According to the United States Environmental Protection Agency (EPA), brownfields are "abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination "1 Within cities brownfields are the properties where activity has moved away or ceased due to contamination in old buildings, the soil, or ground water. In more mild cases this can include properties still in use. Oftentimes brownfields are properties where chemicals were spilled or released during previous industrial or commercial activity. The properties often reflect poorly on the neighborhoods and communities of which they are a part, contributing to perceptions of blight, decreasing property values, and posing public health risks. Brownfields are places that people seek to avoid. By virtue of being labeled "brown" rather than "green" fields the term is inherently implying that such sites are dead and devoid of life rather than alive and full of potential.

University Avenue, like many other industrial areas in the United States, is home to a number of brownfield sites. The Central Corridor is home to 1,037 active sites of various contaminations (active in this case meaning properties that are currently contaminated—where cleanup has not begun or is still in progress). 595 of those sites are within a quarter-mile radius of the proposed light rail stations.²

These negative connotations however, do not have to be the reality. Brownfields represent tremendous opportunities, especially in dense urban areas where undeveloped land often no longer exists. Developers are often hesitant to invest in brownfield sites because of their risk of contamination-which accounts for a expensive longer and more development process—and the liabilities that coexist with that contamination. However, with the financial support that is available through various levels and arms of government there are methods in place that can effectively aid in redeveloping brownfields and transforming them back into valuable community assets.

II. BENEFITS & CHALLENGES OF CLEANUP

The positive social, economic, and environmental benefits that can result from brownfield clean up are significant and diverse. Brownfield redevelopment is increasingly being embraced in sustainability literature for the unique and practical way in which it combines economic, social and environmental interests. According to Minnesota Brownfields, a local nonprofit specializing in brownfield redevelopment, past projects have vielded short-term and long-term job creation, local economic growth and investment, revitalization of the local tax base/tax revenue, property value sustainability increases. through efficient use of existing infrastructure and property, reduced threats to public heath. air quality and water improvements, overall and neighborhood revitalization.³ This list is by no means complete, but it illustrates the enormous potential of brownfield redevelopment and makes a strong case for why these sites should be cleaned up. To not redevelop brownfields is to pass up these potential benefits while allowing the current and

potential harms of contamination to continue polluting communities.

The Agency for Toxic Substances and Disease Registry (ATSDR) has developed a general action model

to use when revitalizing brownfields. Their comprehensive approach, grounded in public health, pushes developers, government officials, and community members alike recognize to the connections between health. community, land and the environment. and buildings and infrastructure

various social, political, economic and physical characteristics of each category shape quality of life in the many residential areas adjacent to University Avenue commercial properties. In a pre-construction study of the Central Corridor conducted by the Minnesota Department of Health, vacant buildings and properties and under-used or polluted land were

identified as land and environment issues in the area.⁵

Then of course it is necessary to have the financial means to redevelop a brownfield site, often times one of the limiting factors in the clean up process. The EPA has а Brownfield Redevelopment fund, and a benefit of being designated as а brownfield is that such a label qualifies that property for financial support. In order to be declared a brownfield however. the EPA or the regional offices of the Minnesota Pollution Control

Potential Brownfield Sites in the Central Corridor



when planning. The model helps stakeholders to understand how the

Map 1: Brownfields and Contamination Types

Agency (MPCA) must assess the property. If the community (the people

who live and/or have an interest in the neighborhood) shares no responsibility for the contamination, and there is a

clear public benefit to assessing a site, the EPA or MPCA can complete the assessment for free as part of the Targeted Brownfield Assessment (TBA) program. The EPA also grants money annually to government and quasi-government agencies to support property owners who are not responsible for contamination. On the other hand. properties labeled Land Reuse sites have also confirmed or

suspected contamination, but are not eligible for those funds. Additionally, the EPA also offers Brownfield Cleanup grants on a yearly basis. These funds are very competitive however, so it is often necessary to look to statelevel environmental and economic for sustainability, governments and organizations are working hard to make funding and support available to

> encourage potential developers.

Brownfields in Minnesota

The Twin Cities are home to over 20% of Minnesota's known or possible (nonpetroleum) contaminated sites, with 7% of those sites being located in the Central Corridor. according to the Minnesota Pollution Control Agency. Once home to

a variety of

manufacturing



Map 2: Property Values

agencies for grants or loans. With brownfield redevelopment rhetoric increasingly becoming part of the drive

thriving commercial and industrial operations such as car dealerships, warehouses. and facilities, the areas along University

280

Avenue have a disproportionat ely high number of brownfields when compared to other parts of the metro area in a Minnesota Department of Health report.⁸ However, the state of Minnesota is actually а pioneer of land recycling, passing the first legislation on the subject in 1992. Since then over 4.000 brownfield



cleanups have been completed. Even with 10.000 more known contamination sites still in existence. there is considerable promise for Minnesota brownfields based on the high number of previous successful cleanups and the informational and financial resources that are available to assist in redevelopment.

Map 3: Brownfields in a quarter-mile radius of light rail stations

One successful example of brownfield redevelopment is Phalen Avenue. This former industrial and commercial corridor in East St. Paul is now home to a seven-site development, anchored by medical care facilities,

and other business Prior entities. to redevelopment the site had been home a twelve-building to industrial site. Environmental testing of the property had found elevated levels of volatile and semivolatile organic compounds. diesel range organics, and other chemical residue and metals in the soil. The developer of the property conducted soil remediation at the site. Today, despite the exit of old industry, there have been 600 jobs created and the value of the site has risen by \$13

campuses,

million. Additionally, the property taxes generated from this site are more than \$690,000 annually.⁹

III. BROWNFIELDS AND GENTRIFICATION

With the arrival of the Light Rail brownfield properties may seem attractive to developers-especially

those located closest to the proposed stops. Related literature is also in agreement that "urban redevelopment approach to redeveloping brownfield sites is used to include the public in planning for the future of brownfield

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and may even promote gentrification, but the financial and social costs fall often disproportion ately on those who can least afford them. ¹⁰ In this case however, gentrification does not have to be a threat to the existing community and its character. **Brownfields** sites need to be cleaned up, for the benefit of the people who live

often catalyze



Map 4: Highlighted Brownfields

around them and for the economic potential they represent to developers. If an inclusive and participatory spaces, the more negative effects of gentrification can be assuaged.

each project the local government, developers, and public/private land planning groups need to engage with

the

the community through collaborative decision-making processes. Brownfield redevelopment needs to meet the needs of existing residents, and it is essential that with such projects the question of who is included or left out of the process and its (potential) benefits be thoroughly considered. There is more at stake than simply the aesthetic and financial gains of redevelopment.

Similar to the claims made by proponents of brownfield development, such as Jonathan Essoka of the U.S. Environmental Protection Agency, community participation could assist in weakening patterns of racial segregation and its associated issues by furthering environmental and economic equality.¹¹ There is a history of injustice environmental in neighborhoods with industrial uses since lower-income, minority areas are located in closer proximity to industrial areas at a disproportionately high rate. This is especially pertinent considering diverse make-up of the the neighborhoods University along Increased Avenue. community partnerships in brownfield redevelopment initiatives means the community benefits of a project can be increased. A formal Community Benefits Agreement can help

developers to include the community in projects. Greater public participation will make brownfield redevelopment a win-win situation that can also help improve upon the projects themselves using local knowledge. ¹² When developers finish a redevelopment project and leave, it will be the existing residents who interact with the changes. Having a sense of ownership in the project means the existing community will be more willing to work to make the project a success—benefiting everyone involved.

IV. Thinking About Redevelopment

By examining the proximity of these sites to the light rail stations and comparing the property values of brownfield sites to the parcels around them the redevelopment potential of Central Corridor brownfields can be assessed. What was attempted in Maps 3 & 4 was to select the properties under a certain land value and then match them with the brownfield sites that are within a quarter-mile radius of the light rail stations. That particular distance was chosen based on the findings of a study done in Buffalo, NY that found the biggest impacts of light rail transit to be within a quarter-mile of the

stations.¹³ That selection was then further narrowed by selecting the properties that touch higher value parcels. The properties with the greatest differentiation between the land value of the brownfield site and the land value of surrounding properties, in conjunction with their relation to the light rail stations, will have especially great potential for redevelopment. Since there were not many sites that had a high land value differentiation and fell within a quarter-mile radius of light rail stations, Map 4 also highlights all the brownfield properties in the Central Corridor that border higher land value parcels.

This method is by no means the best or only way to think about redevelopment. Several steps were taken to narrow down the large number of brownfields within the Central Corridor. However, those steps were not able to account for the severity of the contamination of each site nor were they able to differentiate between properties that were still in use from ones where activity had ceased. Both of these factors play a significant role in determining redevelopment the potential of brownfield sites and can only be assessed through further analysis of the sites. Nevertheless

brownfield redevelopment, like all types of development, rests on economic feasibility. By considering factors such as property value and proximity to light rail stations it is possible to highlight properties that could potentially be more profitable to redevelop.

V. CONCLUSION

Overall, brownfield redevelopment represents a huge opportunity to transform vacant or under-utilized properties into community assets. The brownfields along University Avenue are particularly important because of their close proximity to existing and new forms of public transit and the potential for economic development that accompanies greater connectivity with the rest of the city. Although brownfield development may allow for gentrification to take hold, there exist ways for individuals and communities to participate in the redevelopment of brownfields to ensure that the benefits of such projects are distributed equally between the developers and the public. The benefits of redevelopment are diverse and far ranging in their impacts, incorporating greater public health, environmental integrity, economic

development, and overall neighborhood revitalization.

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xviii. University Parking:

THE TRUE VALUE OF A PARKING SPACE

by jesse horwitz

Chapter Outline:

- I. Introduction
- II. Parking on University
- III. Conclusion

I. INTRODUCTION

When the light rail is completed, University Ave. will have lost roughly 87% of its on-street parking.¹ Business owners and residents are justifiably worried about this, as it represents a potential drain on business and could mean more time spent searching for an open space. The various government agencies and organizations involved with this project have made a concerted effort to assure people that other parking options exist and have assisted by outlining various improvements that can be made to help mitigate the impact. That being said, parking is a deceptively complicated subject. In this chapter I will explain why parking is so important and complicated, its current significance along the Avenue, and what effects any of the changes brought about by the light rail may have.

If you walk one block north of University along the eastern side of Snelling Avenue, you will find a popular Ethiopian restaurant named Fasika. Fasika customers, however, seem to have caused some trouble with the neighbors. You can tell from all of the neon yellow signs, both inside and outside the restaurant. that instruct Fasika customers not to park in the adjacent lot. That lot, as the signs indicate, is for Midway Books and Christensen Bar customers only. Fasika goes through great pains to inform their customer that the CVS lot across the street is Fasika-friendly and would gladly accommodate your car. However, as is evident in their reviews online, many customers are unaware of the CVS deal and will drive around the block looking for an on-street parking space. While this may seem like a small incident, it nicely demonstrates how important parking has become. Why does Fasika care about where its customers are parking? How much time will someone waste looking for a place to park? Why can't Fasika customers park at the lot next door?

These questions can be answered using the economic principles known as consumer and producer surplus. Surplus is essentially the price you are willing to pay for something minus the actual price of that good. For producers it is the other way around. The concept of surplus is important to understand this parking dilemma. The

reason Fasika cares about where its customers are parking is because the act of looking for a space, and/or paying for one, coupled with the need to travel to the restaurant and back. becomes a cost. Whether you are spending time looking for a space or the money paying for a spot you have incurred a cost that will be deducted from your surplus. This could mean two things for Fasika: either you are less satisfied with your experience, as some people on Yelp.com have mentioned, or you are willing to pay slightly less for the experience. Either way, both you and Fasika lose out on total surplus.

Using the same logic, it is clear that one will only spend so much effort looking for a space before they decide that going to Fasika isn't worth the hassle of finding parking (all of the consumer surplus is gone so there's no benefit in going). Lastly, we can see why the owners of the adjacent lot won't let Fasika customers park there-they want to make sure their customers incur as little of these costs as possible.

In sum, easy parking is important because it allows people to spend their time and money how they want, and for businesses to cater to those wants more effectively and freely. Without easy access to parking, people will incur costs that reduce their willingness to pay, therefore reducing the total surplus. In this sense, one can consider driving around a lot looking for a space, pulling into a parking garage and paying and the time and energy spent walking to and from the car as all part of the same cost. In the U.S., where people drive more and spend more than anywhere else in the world, parking is important.

Given that parking is so essential, we need to understand why it's such a tricky thing to deal with. Just as the costs of finding, paying for, and walking from a parking space are real, so are the costs associated with providing this parking. In fact they are often related. People will complain about the high cost of parking in downtown areas but what they don't realize is that even the free parking spaces around malls, on the street, and elsewhere are quite costly. These costs are hidden, though, in things like grocery store prices and taxes. This happens because there are large costs involved in the upkeep of a parking

space, and someone has to pay for them. These costs include plowing snow from the spaces to make them usable, the cost of general maintenance, and the cost of lighting to make them safe for people to use. The largest cost associated with parking is the rent that must be paid for the land that a space occupies or in the case of an owner, the rent that they could be receiving.² This is why parking becomes so expensive in downtowns: the owner must charge high prices since there is such a need for parking spaces, yet so many other things the land could be used for instead. One could say that downtown parking is so expensive because its owners are simply being honest about the costs. The government does try to alleviate this problem by requiring developers to include a minimum amount of parking based on the size of the development. This may lower the price of parking in downtown and throughout the city, but it brings with it all of the problems associated with government intervention in the marketplace and makes it far more difficult for people to determine who is actually paying for all of this parking.³ The problems with this include an

overly car-dependant citizenry or added costs when developers are considering a project. If building a lot would cut too deeply into their profits, they may not move forward on it. Ultimately, parking spaces can be paid for by businesses, governments, drivers, or even all three, and as a result can be oversupplied, undersupplied, too expensive, or too cheap - all of which are problematic.

At the same time, there are many costs that neither the driver nor the lot owner pay but are definitely associated with this interaction. These types of costs are called externalities because the cost is borne by an external party. A good example of this is when you are cruising for a space during rush hour.⁴ While driving around and around looking for a space, you add to the congestion of the roads, which costs other drivers time despite the fact that they weren't involved in your decision to seek out parking in this manner.

Another example of a parking externality is when people do not park in the most efficient location.⁵ I could park in front of a Burger King and walk over to KFC just as someone else is trying to go to Burger King but now has to find somewhere else to park. By reducing externalities such as these, one could lower congestion and increase customer flow.

Various organizations and city planners have demonstrated the opportunity for refinements of this nature along University Avenue. Things like encouraging parking turnover will allow for more people to visit a business than if people leave their cars in lots without any penalty for inefficiency or preventing a better use of the space. However, in order to make better use of parking spaces now and in the future, it is important to see how parking availability affects University today.

PARKING ON UNIVERSITY

So far I have demonstrated that parking is both vital and costly. Yet questions remain as to whether the costs outweigh the benefits and how devastating the loss of on-street parking might be. In addition, it would be useful to know how the parking related economy may be to fundamental changes in the makeup of the corridor, through the gentrification or densification of the area. I investigated this topic by analyzing real estate and parking within a quarter mile radius of three of the planned stations, and have been able to draw some interesting conclusions. The stations,



Figure 1-Snelling off-street parking



Figure 2-Lexington off-street parking

Snelling (figure 1), Lexington (figure 2), and Dale (figure 3), were chosen due to the different qualities of the neighborhoods in which they reside, to ensure a wide breath of data was captured, and to provide enough distance that overlapping data wouldn't be a problem. The quarter mile radius was used to collect parcels since this is the standard area on which a transit project such as this one would have an effect.⁶ The models mostly deal with residential properties since the relevant data for commercial locations is not as consistent. While I believe this should be remedied, the residential data provides a wealth of information in its own right and can even provide some insight into the effects of parking on



Figure 3 -Dale off-street parking

commercial spaces. While I ran numerous models, they all concern parking and its relationship to housing density and land value. The terms I used for the model consisted of: "Use" which described the function of the property as well as the terms land value, building value, and total value which are self explanatory, the finished square feet of the property, the number of housing units contained within the building, the number of on-street parking spaces on or near University within each quarter-mile radius, the estimated number of parking spaces that would be lost within the station radius, the total number of off street parking in the area, the station name, and the acreage of each property.

The first discovery I made was that the variability in the value of single-family homes (the majority housing type in my data) is better explained by parking availability than any other type of housing (see Model 1). This suggests that single-family homes are more dependent on parking space and car use then any other type of home. This means businesses that rely on customers who live in single family homes could be in trouble, as shopping would be made less convenient. The second thing I discovered was that building density and parking have no real relationship along University (see Model 2). This is an important finding, since one might expect that the more homes there are in a neighborhood, the more parking spaces there would be; on University however it seems that is not necessarily true. Lastly, I determined that, in general, on-street parking is far more valuable than its off-street counter part. Going forward, we will see what these findings could mean for the future of University Avenue.

Model 1	(Total Value/Units)~ off-
	street + on-street
Model 2	(Units/Acres
	Poly)~ off-street +
	on-street

The light rail construction and operation will eliminate the majority of the most valuable parking spaces on University. According to the models I developed earlier, University Avenue could experience a \$968,136 loss in parking value as a result. While this may seem like a huge economic blow

to the area, it pales in comparison to the investment being made in light rail, which is roughly 1,000 times larger then the loss of value due to parking. Until the light rail is operational this loss will mean parking is more expensive to provide for land owners, which could lead to higher prices at stores and to higher prices for parking. In the long run, however, the light rail may decrease the car dependency in the area, as it will provide more efficient service, generating an increase in total surplus for people who don't drive. Coupled with a reduced total surplus for drivers, it could take quite a few drivers off the road and encourage businesses to cater to light rail traffic as opposed to car traffic, while regaining their surplus as well. The light rail also brings with it the incentive for higher density construction.⁷ Since the model was unable to identify a relationship between density and parking spaces it is difficult to say whether these larger buildings will add more parking or rely on the light rail and the parking which is near them. Lastly, the light rail will most certainly raise land values, which will, again, create a disincentive to provide parking, as it will be at higher \cos^8

There are many possible outcomes the construction of light rail and its effect on parking demand may have. Four possible outcomes that could be relevant to gentrification are as follows: The light rail doesn't offset its impact on the parking market. This outcome is possible since the bus line that runs almost the same route is at capacity and more people who do not drive may begin to take the light rail as well. In this scenario, drivers wouldn't really change their habits and people who would not have traveled otherwise would use up the extra capacity that the light rail brings. In this case parking becomes more expensive because of a reduction in parking supply, but not in demand. This would in turn hurt local businesses: since the costs of maintaining parking would stay high, single family homes outside of walking distance would lose value since they cannot enjoy the benefits of the light rail but pay more to park their car. Homes in the immediate vicinity would likely gain value. Should housing near the stations gain value while businesses struggle, this could lead to

gentrification since a high turnover rate for local businesses would allow for gentrifying infrastructure to be built up (things like cup cake shops and American Apparels) while a more affluent group moves into the more valuable homes.

The second scenario is that the light rail does offset its impact on parking. This would be great for local businesses since they wouldn't be saddled with the high costs of parking, yet could still bring in plenty of customers. In addition, people who still need to drive to these stores could do so and it will be less costly to park. This may lead to a more even increase in home value that could be gradual enough so as to not spark the onset of gentrification.

The third scenario is that the light rail doesn't absorb the extra commuters due to increased building density. This would be bad for people currently living and working in the area but would not promote gentrification. At the moment density and parking are not very well related along University. This suggests that if the light rail doesn't support the travel demands associated with increased density, you may find areas along university with a shortage of parking and areas with a surplus. This could lead to serious congestion of the roads, high parking costs in isolated areas, and lower residential desirability.⁹

Lastly, the light rail could support the higher density and keep parking costs at an acceptable level. In this situation the land surrounding each station would become far more valuable as the light rail connects multiple higher density areas. This could cause gentrification to take hold in these areas but would spread slowly if new building continues.

CONCLUSION

Parking along University Ave. has certainly become a very important cause for those who stand to lose the most from a reduction in on-street parking. Parking is important because it represents the beginning and end of any journey that takes place in a car. For those who are dependent on automobile traffic for their business the construction period will undoubtedly be difficult. However, the introduction of light rail will allow for a more diversified consumer base that is more adaptable to either rail or road disruptions, meaning less volatility. People who are transit dependant will benefit greatly from this expansion of service since it will allow for greater capacity and speed. Lastly, people who rely on their cars will likely suffer due to construction and the loss of parking. Many other variables are at play in this situation, but taking the time to consider the cost of a parking space might help a great deal.

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CONCLUSION

The chapters included in this atlas are a compilation of research conducted by students in the Transportation Geography Senior Seminar and the Urban Social Geography class during the spring semester of 2011. This atlas project continues a long history of commitment to civic engagement projects by the Macalester College Department of Geography; previous atlas projects produced by the Geography Department focused on Grand Avenue (1988) and Payne-This year's atlas Arcade (1998). focuses on University Avenue and the Central Corridor, where the beginning of light rail construction in 2010 provided a unique opportunity to explore the impact of large-scale transit development in a largely autodominated area.

This atlas asks the question: 'What will the transition from an automobile- to transit-based system mean for the urban economic geography and social diversity of the Avenue?' To answer this question, we must first examine the current state of University Avenue before the light rail is constructed. Plans are for a future Transportation Geography Seminar to revisit the conditions and analysis documented in this atlas as a means to draw comparisons and track changes after completion of the light rail line.

Upon beginning our research on the Central Corridor, we met with city planners, political officials, community members, business owners, and other stakeholders on University Avenue. Drawing from our experiences in the related community, literature. development plans, and personal interest, we each targeted a specific research area to explore in relation to a common theme. Ultimately, we experienced a collective enthusiasm to explore this common theme of light rail transit as an agent of change.

The research presented in each chapter indicates an economic and social context on the brink of change. Each chapter seeks to document the existing conditions of different variables along the Corridor as well as analyze the potential impacts of light rail transit. The research demonstrates the significance of understanding the present conditions of the Corridor as development unfolds to ensure that this development has a positive effect on the Corridor and its current residents. The findings report the likelihood for positive economic growth, as well as indicate concern for shifting population demographics or the ability to meet the current demonstrated needs of the Corridor's neighborhoods.

Our chapters narrate the economic landscape and changing nature of land values, the mosaic of architectural styles, the conundrum of traffic mitigation, and the artistic endeavors at transit stations. We illustrate the impacts of gentrification, possibility the of brownfield redevelopment, and the distribution of subsidized housing along the corridor. We also foray into the mythic nature of crime, prostitution and informal economies, and how spatial activities can impose themselves as placemakers. Our chapters are categorized into five sections that explore the built environment, economic impacts, social transportation impacts, and accessibility, and the potential for gentrification along University Avenue and the Central Corridor.

Our work has culminated in this atlas, and it is this document that we offer the community as a resource, as a tool to understanding and pursuing the politics of the Central Corridor. Of course, there are limitations to the discourses we offer. This atlas provides only a partial perspective on University Avenue's current landscape. Additionally, we do not claim expertise of these subjects; rather we have pursued this project as one of learning for ourselves and our readers.

We would like to thank our professors Laura Smith and Dan Trudeau, for their unnumbered hours of counsel and guidance. We also extend our thanks to dozens of local community leaders, business owners, and political officials, for taking the time and effort to tell us their sides of the story. Their participation brought insight and personality to the atlas, without which our work would lack community connection and a diversity of opinions. Lastly, we would like to thank you, the reader, for taking the time to read our work and actively participate in the discussion of these significant issues that will surround the Central Corridor in years to come.