

Achieving Transit-Oriented Development Principles Through the Redevelopment of Land in Reston, Virginia

(Technical Paper)

Investigating Public Involvement as an Effective Means to Minimize the Displacement Caused by TOD-Related Gentrification

(STS Paper)

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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General Research Problem: Ensuring Equitable Transit-Oriented

Development

In the last decade, transit-oriented development (TOD) has become a fast growing trend that is shaping urban planning and development projects in cities across the nation. Transit-oriented development is the term used to describe a high-density mix of commercial, residential, office, and leisure space within walking distance of public transport. These compact, walkable neighborhood centers provide many benefits to the community. The most prominent of these benefits is the decreased dependency on personally owned vehicles. This shift away from automobiles and towards alternate forms of transportation, such as walking, biking, and rail, not only reduces the carbon footprint and energy consumption of the residents, it also fosters a stronger sense of community and provides easier access to numerous facilities.

There is no question that the gentrification resulting from TOD provides numerous benefits for the wealthy individuals who are able to move into these neighborhoods; namely, it revitalizes city streets, raises property values, and brings access to improved amenities. However, gentrification does not always bring the same benefits to low-income residents, as it has often been correlated with the displacement of long-time residents in the community. Often, these low-income residents are forced by rising rent prices to move out of their neighborhoods and further away from public transit and jobs. This is a problem that must be solved by urban planners, developers, and communities working together. Careful planning must be done to ensure that gentrification resulting from TOD is beneficial to newcomers and long-time residents alike.

Achieving Transit-Oriented Development Principles Through the Redevelopment of Land in Reston, Virginia

How can transit-oriented development principles be implemented into a feasible redevelopment plan for a parcel of land in Reston, Virginia?

The task will be to create a redevelopment plan for a parcel of land located in Reston, VA near the planned Dulles International Airport Metro stop. This redevelopment plan will aim to optimize the allowable building floor space, providing a dense mix of commercial, residential, and retail development on the site. The optimization of the site's features will anticipate current and future market conditions and capitalize on the construction of the adjacent Metro stop, allowing the site to become an area of transit-oriented development. The final deliverables will include a written narrative and comprehensive civil plan set, along with a proposed construction schedule and cost estimate.

The 537,000 square-foot parcel of land was originally developed in 1997, when the maximum allowable building floor area, which accounts for the area of all of the stories in each building on the site, was just over 400,000 square feet. Two office buildings with a combined total building floor area of around 400,000 square feet were constructed on the site, and they are still in use today. However, the Fairfax County Comprehensive Plan, which establishes the community's goals and guidelines for land use in the county, was amended in 2018 and now allows for a maximum building floor area of 2,148,000 square feet on the site. Thus, the parcel in its current state with only 400,000 square feet of building floor area is significantly underdeveloped, since these new guidelines permit the site to have over 1.7 million additional square feet of building floor space. This additional area can be added to the site vertically. One

of the main goals of this project is to redevelop the site with new, taller buildings to take advantage of the increased allowable building floor area.

In order to create a final design that is feasible, our team will need to draw on knowledge about site traffic considerations, stormwater best management practices, typical building layouts, and zoning requirements for the site. We will gain this information from research on industry standards and from experience with previous civil engineering courses. The design itself will be created using AutoCAD Civil 3D software. Another key element that will be important to consider in the design is the cost of the construction and planned design elements. Our team will work with mentors in the construction and civil engineering industries to obtain this cost information. Although there is no defined budget for the site development, our team will treat cost as an important constraint, realizing that excessive, unwarranted costs could make the design impractical to implement in the real world. Upon completion of this project, we aim to have a detailed final design plan that could be feasibly constructed on the parcel of land. The proposed design will intend to bring increased revenue and relevance to the site, and it will also provide a compact community where individuals can live, work, shop, and relax, continuing the trend towards transit-oriented development in the Washington Metro Area.

Investigating Public Involvement as an Effective Means to Minimize the Displacement Caused by TOD-Related Gentrification

Can the public engagement of community residents during the development planning process serve as an effective way to minimize the negative impacts of gentrification associated with TOD?

Since the purpose of TOD is to create dense, vibrant, and walkable neighborhood centers that provide more people the opportunity to live in areas located near public transit, this type of development often results in gentrification and revitalization of the area. Similarly, when public transit is brought into an existing community, the demand for nearby properties goes up, causing prices to rise and resulting in gentrification. It is important to note that the term “gentrification” has acquired a negative connotation as a result of its correlation with the displacement of some of the original, lower-income residents of the neighborhood. Therefore, to address this research question, I will first need to distinguish between the terms “gentrification” and “displacement” and provide evidence that the former does not always cause the latter. Gentrification refers to the changing of the character of a neighborhood as a result of an influx of wealthier businesses and residents, but many studies have shown that gentrification does not always result in displacement of low-income residents (Baker & Lee, 2019; Dragan, Ellen, & Glied, 2019). It is true, however, that gentrification, if not properly planned and executed, can result in low-income residents being forced by economic pressures to move out of their neighborhoods. In my research, I will explore the use of public involvement in the TOD planning process as an effective means to reduce the occurrence of displacement and maximize the benefits of TOD to the current low-income residents. This will also include an exploration of which aspects of TOD can result in the

greatest benefit to lower-income individuals, since these characteristics should be emphasized in the development planning process.

Background

Findings of recent studies regarding the link between gentrification and displacement are divided, as some gentrifying neighborhoods have been shown to experience displacement, while others have not (Padeiro, Louro, & Costa, 2019). These studies, however, do not suggest possible reasons behind why some gentrifying neighborhoods were able to avoid the displacement of residents while others were not. I will attempt to fill this gap by investigating several case studies to determine whether or not public involvement during the development process is a significant factor in minimizing the occurrence of displacement.

In the sociotechnical system centered around the development practices associated with TOD, the most prominent social groups involved are the current low-income residents of the areas that will become gentrified and the policymakers, urban planners, and developers who have the ability to determine the resulting structure of the community. Often, land developers focus primarily on the potential financial gain resulting from the changes they orchestrate, while it is the job of urban planners to more carefully consider the impact on the community that these changes have. Other groups may include the middle- to upper-class individuals that will eventually move into these gentrifying neighborhoods and the press, which is generally divided over its portrayal of gentrification as beneficial or detrimental to cities.

Data Collection & Analysis

To investigate the effectiveness of engaging the community throughout the development planning process, I will use a combination of literature review and case study methods. First, I will highlight several case studies of cities that heavily involved the community in their planning

processes. Fruitvale Village in Oakland, California is an example of a community that was significantly involved in the TOD planning process, and as a result, studies have shown that it did not experience displacement (Barreto, Diaz, & Reny, 2018). I will also incorporate a few case studies of TOD in cities, such as Portland, Oregon, that did not focus on community involvement and then experienced displacement. By analyzing the differences in the approaches to development in these case studies, I will attempt to shed light on the reasons why some gentrifying neighborhoods have experienced displacement and some have not.

Through literature review, I will also explore the fact that it is not always economic constraints that cause a gentrifying neighborhood's former residents to move out; often, it is the loss of a sense of belonging that causes them to move (Li, 2018). It follows that this concern could be ameliorated by directly involving the community in the changes that are to take place.

Finally, studies suggest that residents who are willing and able to stay in their gentrifying neighborhoods are benefited by the increased opportunity that is introduced to them through gentrification (Brummet & Reed, 2019). For example, TOD may bring increased access to jobs and improved public amenities, and it might result in decreased crime. If land planners and developers incorporate the community's needs into the development plan, then current residents are more likely to stay.

A thorough review of these case studies and other research findings will help to reveal the reasons behind why some gentrifying neighborhoods experience displacement while others do not. Namely, it will explore the use of public involvement in the development process as a means to solidify residents' place in the community and reduce the occurrence of displacement. Since the revitalization of neighborhoods brings about many benefits for those who are able to

stay, this research to determine ways to avoid displacement will be important to ensuring equitable development in the future.

Conclusion

Through this research, I will attempt to show that gentrification does not cause displacement, per se. While gentrification can lead to the displacement of lower-income residents, this negative consequence has been avoided in many gentrifying neighborhoods. This research will explore the effectiveness of public involvement during the development planning process on the ability of the neighborhood to avoid displacement of current residents. Since introducing public transit and implementing TOD design principles into an existing neighborhood is often associated with gentrification of the area, it will be important to identify ways to minimize the occurrence of displacement as the trend towards TOD continues to grow. TOD has the potential to bring about numerous benefits, not only in the ease of lifestyle for its residents, but also for the environment, and it is important that these benefits can be realized by people of all socioeconomic backgrounds. Thus, this research will attempt to show that when careful planning is used to integrate the needs of the existing community into the redevelopment plan, the benefits of the gentrification caused by TOD can be shared by long-time residents and those moving into the development.

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