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CHAPTER 5

PROFILES IN TOD/TOM 2: TRANSIT DEVELOPMENT AND MANUFACTURING COAST TO COAST

By: Emelyn Hernandez and Kyla Wright

INTRODUCTION

In recent decades, urban planners have followed a transit-oriented development (TOD) model. With transit-oriented development, mixed-use buildings surrounding light rail stations are built as a combination of residential housing units situated above commercial retail space. This model has been replicated in cities across the United States so frequently that there is a template for cities to adopt for their own light rail expansion projects. The stated goal of many transit-oriented development projects is to create walkable living spaces and increase ridership on public transportation. What is generally left out of this planning process is how the manufacturing industry is also proactively incorporated. An alternative to the traditional transit-oriented development projects is transit development that intentionally incorporates the existing urban industrial manufacturing landscape and economy.

INTRODUCTION (CONTINUED)

Transit development that embraces the manufacturing industry can be referred to as transit-oriented manufacturing (TOM). Without intentional, proactive steps to protect industrial areas, manufacturing sites are often rezoned or otherwise eliminated from the developed landscape. Cities that recognize the value of their manufacturing industries but also want to initiate a development project near light rail lines need todevelop strategies beyond the traditional TOD model.

Transit-oriented development is often researched; however, transit-oriented manufacturing does not yet have a robust academic focus. Even in cities which have forward-thinking plans to integrate industrial manufacturing, the planning process is still described as TOD. One possible reason why examples of transit-oriented manufacturing are not studied in detail is because there is no common language to identify this type of development.

Yet we show here that cities have created transit-oriented communities surrounding manufacturing industries, enhanced by transit stop improvements, and increased walkability options for pedestrians. Cities have built multi-use space and new housing stock while making it a priority to not displace current community residents. Transit-oriented manufacturing can bolster these efforts and provide planning opportunities for communities to grow and develop through intentional community input and involvement. Because manufacturing industries could employ residents who live in the community, there may be a greater sense of ownership for transit development. Residents and community stakeholders can be a part of creating the type of urban development to which they feel connected.

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Highlighting actual examples of transit-oriented manufacturing is important because it suggests real alternative to traditional transit development. When there is a cache of transit-oriented manufacturing models to reference, it becomes possible for city planners who are interested in maintaining their manufacturing industry to do so by drawing upon ideas and processes that have worked for other cities. Conversely, when examples or an appropriate vocabulary are missing, it can be difficult to learn from the experiences from other times and places.

Though the term 'Transit Oriented Manufacturing' is not used, our research indicates that there are, in fact, many examples of transit-oriented manufacturing across the United States. This chapter highlights several examples of cities that are deliberately incorporating their local manufacturing zones with urban smart-growth transit planning. In two cities, Glendale, California and Charlotte, North Carolina, recent planning processes have a strong focus on community feedback and engagement which has led to innovative development progress.

RESEARCH OVERVIEW

Smart growth frequently includes transit, housing and retail space in mixed-use buildings. Traditional transit-oriented development is not an easy feat, but because it is a reasonably common form of development, there are a number of planning solutions that can be adapted to work in another city. There is widespread understanding of what transit-oriented development entails and the impacts it can have on a growing city. According to Nancey Green Leigh and Nathanael Z. Hoelzel (2012, p. 95), transit-oriented development is frequently mentioned in planning publications offering "… several specific policy recommendations and examples of the type of dense, compact, mixed-use development that attracts the critical mass of transit ridership necessary to support TODs" (ibid.). Green Leigh and Hoelzel make it clear that manufacturing industry in urban development plans is necessary because, "…by not encouraging industrial revitalization in mixed-use, transit-oriented, and infill redevelopment projects, smart growth policies overlook a significant economic sector that contributes to diverse, innovative, and more resilient local economies" (p. 88).

What is apparent in recent scholarship is the idea that smart growth which proactively and intentionally values industrial manufacturing is absent. Green Leigh and Hoelzel assert that "… smart growth literature provides little to no acknowledgment of the need to coordinate urban industrial development practices with other mainstay smart growth activities" (p. 87). One possible reason for the absence has been identified in "Keeping Blue Collars in Green Cities: From TOD to TOM?", by Yonn Dierwechter and Mark Pendras (2020), in that city planners have a lack of experience with transit-oriented development that facilitates industrial manufacturing. Without examples of urban growth and development with industrial manufacturing as a foundational component, it is challenging to envision development opportunities for cities. As Dierwechter and Pendras pose, "[i] n terms of planning practice, the first step is to make TOM 'thinkable', to bring it into the realm of possibility, by demonstrating its conspicuous empirical absence from current planning practices and articulating its normative and theoretical desirability" (p. 3). Traditional transit-oriented development has many examples that make it accessible to cities interested in transit development. Transit-oriented development even with all of the planning, expertise, and financial commitment needed, is a comfortable development option because it can be replicated and modeled from previous examples.

Scholarship finds that cities are reluctant to include industrial manufacturing into urban transit development growth plans because of the complexities of who would need to be involved in the development process. Industrial manufacturing development is "clearly a much wider planning and development challenge than just transit policy" and requires a robust network of knowledge (p 3). Dan Cotter highlights these tensions as "[t]ypical points of friction [that] include security, trash, cleanliness, noise, smoke, odors, parking, signage, and special event nuisances…", in his article, Integrating Light Industry into Mixed-Use Urban Development (2012, p. 46). The challenges put forth by these scholars underscore a need for a collective effort in finding solutions.

The literature states that the manufacturing industry is not a priority for cities when they are planning for transit development, and that if manufacturing zones are near transit development they are passively incorporated or removed. More research on this topic is needed because industrial manufacturing zoned areas are quickly being repurposed for other uses (Green Leigh and Hoelzel, 2012, p. 91). Retaining industrial zoned land for positive, practical uses enhances a city's health and wealth.

The research for this chapter asks if development practices for transit development with manufacturing industry inclusion are, in fact, happening within the United States. The consideration that city planning practice is ahead

RESEARCH OVERVIEW (CONTINUED)

of the literature opens doors to find cities that have seen the value in incorporating manufacturing industry into transit development. By researching and discovering cities making strides in transit-oriented manufacturing, it is possible to gather examples of planning processes. Our research was focused on identifying cities which have made significant progress with transit development that includes the manufacturing industry.

Because transit-oriented manufacturing appears to be absent from the literature, it is important to call attention to the work being done and amplify existing examples of TOM for cities that are considering similar planning projects. By providing a spotlight, it could be possible to develop a manufacturing development outline for cities to use in the same way as TOD, so that manufacturing can hold its place in urban areas. By focusing on the process cities are taking, the planning could seem more accessible and attainable for other cities looking to incorporate similar strategies.

We have found cities across the United States that have some type of manufacturing-oriented transit development planning. These examples were challenging to find, in part because there is no shared language to identify the type of planning that is occurring. One way to find cities which have transit-oriented manufacturing is by identifying cities with an expanding light rail transit system in proximity to industrial manufacturing zones. By cross referencing these two aspects, it is then possible to narrow down cities which have urban growth and development plans. This mapping system, in addition to guidance from our instructors led us to find that there is intentional planning being done in several cities including Glendale, California; Charlotte, North Carolina; Atlanta, Georgia; and Baltimore, Maryland. Both Glendale and Charlotte have innovative transit planning processes that proactively incorporate the local manufacturing industry and both of these cities refer to the planning as transit-oriented development.

To explore the ways cities are moving forward with transit-oriented manufacturing, our research examines the ways in which the cities of Glendale, California and Charlotte, North Carolina are developing planning processes that are designed to involve community stakeholders and city planners to create a strong foundation to develop cutting-edge transit-oriented manufacturing development. As both of these cities are in the preliminary phases of transit development, our research focuses on the process in which city officials and community stakeholders move these development plans forward. In addition to a thorough exploration of these two cities, there are also specific examples pulled from other cities at different stages of the development process to highlight additional practices. The inclusion of these examples aim to shed light on the exciting possibilities and benefits of strategically moving forward with transit-oriented manufacturing.

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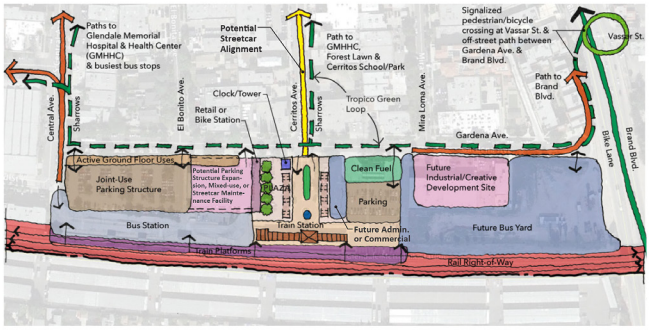
FINDINGS

While scholarly literature largely fails to demonstrate how transit-oriented manufacturing exists and benefits communities, promising examples exist in many cities. One of these cities is Glendale, California. The city of Glendale has a well-developed, mixed-use space that also includes industrial areas. Transit-oriented manufacturing in the Tropico neighborhood of Glendale is surrounded by commercial use, mixed-housing buildings, and manufacturing industry opportunities. This demonstrates the potential growth transit-oriented manufacturing has to offer to cities that invest in its development.

Becoming "green," or eco-friendly, has become a growing phenomenon in cities' developments. Organizers and developers have become aware of the benefits of going green, and the positive impacts on the environment and local economy. A way to be green is to be mindful of vehicle fuel consumption. To reduce fuel consumption, developers and city planners focused on increasing public transit options resulting in transit development with a manufacturing focus. By doing so, transit is accessible for the public to use instead of their personal cars. Glendale previously lacked a transit hub where people can travel easily between cities. Therefore, the Tropico transit center was developed to connect Glendale to other Southern California cities.

While keeping cities green is important, providing blue-collar jobs is equally valuable. This is another reason as to why cities invest in manufacturing transit development. Transit-oriented manufacturing is an opportunity for economic development and growth by creating and maintaining jobs. As part of the South Glendale Community Plan, one of the objectives was to, "[c]ultivate medical, commercial, industrial, and creative employment opportunities by taking advantage of Glendale's proximity and connections to regional destinations" (City of Glendale, n.d.). Transit-oriented manufacturing offers workers access to their jobs while practicing eco-friendly commuting options, in addition to actively engaging with the manufacturing economy.

Above: Existing



Above: Conceptual Study

South Glendale Community Plan • City of Glendale, CA
Appendix C: Tropico Center Plan
Adopted 31 July 2018

Figure 1. An illustration of an existing Glendale transit station between Central Avenue and Brand Blvd. (top) and a conceptual version (bottom) with the pink sections in the conceptual version designated as "Potential parking structure expansion, mixed-use, or streetcar maintenance facility" (left), and "Future Industrial /Creative Development site" (right).

All of these benefits can be seen in Tropico, Glendale, Tropico is a mixed-use community, where housing and manufacturing share neighborhood space (Figure 1). Glendale city planners seek to create industrial areas that prioritize "light manufacturing, assembly, wholesale/warehousing, sound stages, and various entertainment-related and creative craft trades with pedestrian-scaled features…" (City of Glendale, 2018, p. 14). Since keeping blue collar jobs in green cities is important, Glendale offers industrial and manufacturing businesses in its neighborhood. Current examples are textile companies, air and heating manufacturing, auto body manufacturing, bronze manufacturing, and distribution services. All

FINDINGS (CONTINUED)

these types of manufacturing spaces are accessible from the transit center, making it convenient for blue collar employees. While residents can use the transit system to travel for leisure, it is also possible for others to have accessible transportation to their jobs. In addition to being eco-friendly, the City of Glendale offers clean energy at a natural gas station.

A strong manufacturing presence in Glendale demonstrates that manufacturing is still present in communities. It is therefore important for urban manufacturing to be taken seriously. It is assumed that manufacturing is a dying industry that does not need intentional planning to maintain a presence in cities, however, that is not the case. Transit-oriented manufacturing makes it possible for manufacturing jobs to be present in a green, sustainable city. Larry Zarian, a former Mayor and Council Member of Glendale, saw manufacturing potential in the City of Glendale and was "committed to the continuous improvement of the Glendale community and the development of transportation infrastructure throughout the State of California" (Larry Zarian transportation center, 2011).

In other cities across the United States, transit-oriented manufacturing planning is occurring in other ways. Dan Cotter identifies twelve existing mixed-use industrial districts in the United States (2012, p. 23). Atlanta, Georgia, according to Cotter, "has a track record of progressive and forward-thinking interpretation of its code", was taking steps as early as 2012 to "enhance the feasibility and profile of light industrial, mixed-use development" within the city (2012, p. 23). Fulton County, where Atlanta is located, made it a priority in 2016, 2017, and 2018 to review "zoning districts to further maintain the integrity of all industrial areas" (Figure 2). ("Fulton County 2016, p. 128). Similarly, in 2006, Baltimore, Maryland city planners implemented zoning protections as part of their transit planning, recognizing that otherwise "industrial uses can be out-competed and will leave the City in a shortage of consolidated industrial core areas" (City of Baltimore, n.d., p. 164).

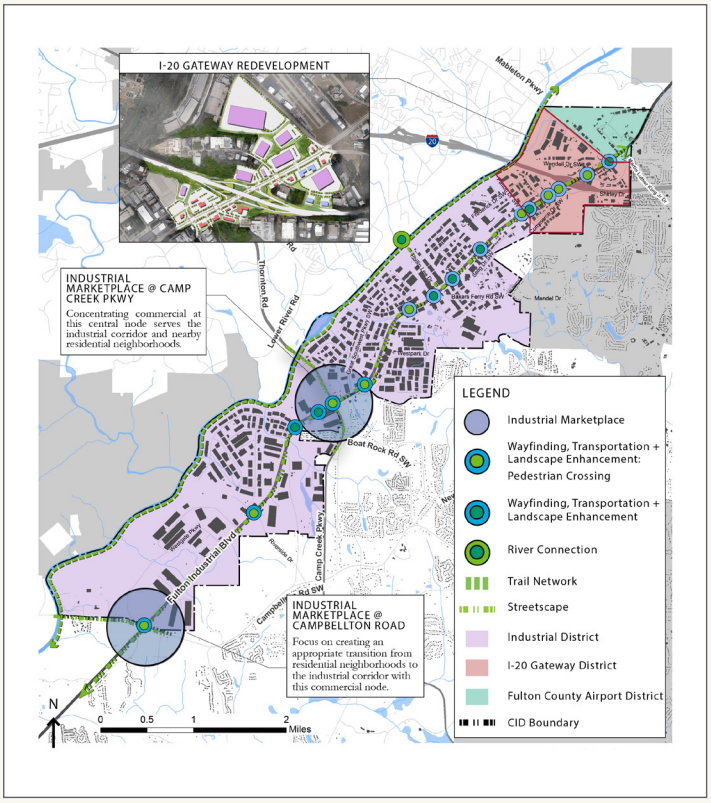


Figure 2. A map of Fulton County's Industrial Marketplace zones (dark purple circles) situated to serves as a transition between residential neighborhoods and the industrial corridor. Source: (Fulton County 2016, p. 34.)

In Charlotte, North Carolina, the city planning department is also implementing transit development that incorporates the local manufacturing industry, particularly through a Unified Development Ordinance Advisory Committee and zoning realignment ("City of Charlotte, 2019) (Figure 3). As identified on charlotteudo.org, *"[t]he Unified Development Ordinance Advisory Committee (OAC) is a volunteer committee composed of individuals representing neighborhood and sustainability interests as well as design and development professionals. OAC members provide a wide range of technical expertise and community perspectives. The committee's primary role is to provide advice and feedback, helping City staff and consultant teams evaluate and test elements*

of the Unified Development Ordinance prior to their inclusion in the draft UDO." (2019).

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Figure 3. An image included in all the OAC meeting minutes for the first year of meetings in Charlotte.

eco-friendly commuting options, in addition to actively engaging with the manufacturing economy. The OAC met monthly from December 2016 to December 2018 to discuss many of the issues and concerns such as cleanliness and noise, as mentioned in Cotter's Integrating Light Industry into Mixed-Use Urban Development (2012, p. 46). Not only did the diverse and knowledgeable OAC meet to provide expertise to city planning staff, but they also were a part of developing the Unified Development Ordinance (UDO), which is,

"a regulatory tool meant to guide future development so that it results in the types of community and places defined by Charlotte's Place Type policies. The UDO will also be instrumental in implementing other City policies such as the Transportation Action Plan, the Urban Street Design Guidelines, and the Urban Forestry Master Plan" ("What is the unified development ordinance (UDO)? -," n.d.).

A draft of this document is expected to become publicly available in early 2021 according to charlotteudo.org. In theory, by including representatives from various neighborhood associations, community organizations, design

FINDINGS (CONTINUED)

groups, Public Health officials, and other advisory committees, there is a greater opportunity for community support and agreement on retaining industrial zoned areas.

In an effort to maximize the productivity of existing industrial zoned areas, and the livability and design of the neighboring areas, in 2019 the Charlotte City Council "approved four new TOD zoning districts. These new districts are designed to encourage and enable the development of moderate to high-intensity, mixed-use neighborhoods near rapid transit stations and streetcar stops." (City of Charlotte, 2019). The Alignment Rezoning Guide identifies the four rezoning sites as the Transit Urban Center (TOD-UC), which is districting nearest the transit stations and allows for taller buildings; Transit Neighborhood Center (TOD-NC), for lower building heights in existing residential neighborhoods; Transit Community Center (TOD-CC), which accommodates more forgiving design standards for future market development; and Transit Transition (TOD-TR), which has "relaxed" design standards to "preserve the existing neighborhood character and scale", and is where most of the industrial zoning can be found (2019, p. 6). These four zoning districts comprise over 1,500 parcels (Figure 4). The goal is that all four of the transit rezoning sites be within walking distance to a light rail station and generally be pedestrian friendly. Of the eighteen light rail station areas on Charlotte's Lynx Blue Line, as detailed in the 2019 Alignment Rezoning Guide, ten of those areas were recommended to be at least partially rezoned as TOD-TR. By rezoning the areas, Charlotte's planning department has moved towards their goal of "defin[ing] the places [they] want to create and establish[ing] the rules to create them." City of Charlotte, 2019).

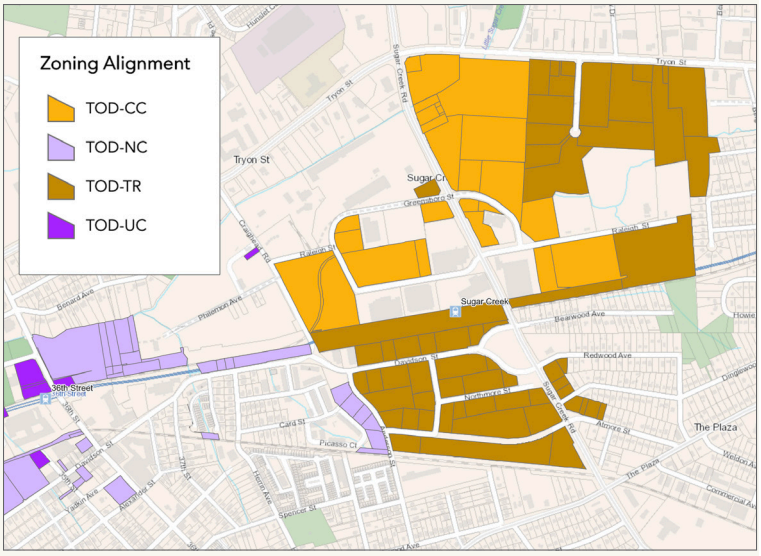

Figure 4. An image of the Sugar Creek and 36th St. light rail stops in Charlotte, North Carolina which shows the proximity of the four different alignment zones in this location. Retrieved from https://charlotte.maps.arcgis.com/apps/webappviewer/index.html?id=154674c8ea364da687ce0f3248ffdac6, April 13, 2020.

CONCLUSION

Cities across the United States that are planning transit-oriented development while incorporating the local manufacturing industry are ahead of current literature regarding transit development. From examples such as Glendale, California and Charlotte, North Carolina we see that cities have seen the value of retaining and growing their manufacturing sector to support local job growth while reducing local vehicle traffic and have taken steps through community advisory committees and creative zoning practices to ensure manufacturing industry has a place in their urban development. The type of development noted by scholars as being ignored has actually been developing for years. These transit-oriented manufacturing developments have been grouped with traditional transit development making it difficult to identify this alternative branch of manufacturing development practices. With a common, shared language we could better identify and differentiate traditional transit-oriented development from more innovative, transit-oriented manufacturing planning practices. The innovative examples that are underway can be used to develop a blueprint for future development.

It is important to understand that transit-oriented manufacturing is occurring, despite the lack of recognition in the literature regarding transit-oriented planning. Transit-oriented manufacturing development practices have encouraged cities to maintain green, eco-friendly growth while still providing blue collar, manufacturing jobs. Transit-oriented manufacturing planning processes demonstrate that it is possible to encourage a vibrant industrial economy that benefits the city and its residents. Manufacturing has the ability to thrive in green cities with the help of innovative manufacturing industrial transit development. By using Atlanta, Baltimore, Glendale, and Charlotte as examples it is possible to develop a template of innovative ideas for other cities across the United States to initiate manufacturing industrial development. Further research can more closely follow cities such as Glendale and Charlotte which are at the beginning stages of their development processes. Continuing to explore cities at various stages of transit-oriented manufacturing will help to create a more extensive template. This template combined with establishing common language such as the phrase transit-oriented manufacturing to distinguish when cities make the shift towards actively incorporating manufacturing, there is great potential to make transit-oriented manufacturing the new standard in transit development.

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