Transit-Oriented Development Typology Strategy for Allegheny County





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The Center for Transit-Oriented Development (CTOD) authored the report in partnership with the Pittsburgh Community Reinvestment Group (PCRG), on behalf of GoBurgh. GoBurgh is the leading non-partisan voice on transit for the Pittsburgh region. With a rich knowledge base, extensive research-backed data and a wealth of information on transit-oriented issues, GoBurgh acts as a convener of organizations and communities in the Pittsburgh region, working toward sustainable and vibrant transit infrastructure.

GoBurgh exists as part of the Regional Policy program of the Pittsburgh Community Reinvestment Group (PCRG) and as such brings a community-oriented voice to transportation planning, integrates transportation and land use policies, and leverages transportation assets as community revitalization and economic development tools. GoBurgh also monitors and works with local, regional and state government agencies to ensure smart and equitable legislative policy development.

The Center for Transit-Oriented Development (CTOD) is the only national non-profit effort dedicated to providing best practices, research and tools to support equitable market-based transit-oriented development. CTOD partners with both the public and private market sectors to strategize about ways to encourage the development of high performing communities around transit stations and to build transit systems that maximize development potential. CTOD works to integrate local and regional planning, generate new tools for economic development, real estate and investment issues, improve affordability and livability for all members of the community, and respond to imperatives for climate change and sustainability. The Center for TOD is a partnership of Reconnecting America, the Center for Neighborhood Technology, and Strategic Economics. For more information go to CTOD's website at http://www.ctod.org.

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Executive Summary

Cities and regions from coast to coast are pursuing transit-oriented development (TOD) strategies as a way to achieve many goals, including increased economic competitiveness through improved quality of life, reduced congestion, lower transportation costs for households, improved air quality, reduced costs for providing city services, and growth management. The concept of TOD is becoming more popular as the number of regions planning light rail, bus rapid transit, and other fixed-guideway transit investments expands.

While other regions must spend hundreds of millions – or billions – to create transit-oriented communities, Allegheny County, fortunately, is well-poised to capture the creative labor force and new employers interested in the improved quality of life offered through transit-oriented living that its current fixed-guideway investments could catalyze. Many of the county's neighborhoods – and surrounding communities – were built around historic transit lines. A large share of neighborhoods near the T, Busways, and Incline stations are already walkable and include their own nearby community retail and service amenities. However, a more systematic approach to transit-oriented investments is needed to unlock the potential of these neighborhoods and draw regional economic growth. This Transit-Oriented Development Typology Strategy is designed to provide a framework for understanding what these transit-oriented investments are, where they can leverage the greatest economic potential, and how they can be funded and implemented.

This Strategy focuses on the region's fixed-guideway transit network, which includes the East, West and South Busways, the Blue Line and Red Line T, the Monongahela Incline, and the planned Downtown to Oakland Bus Rapid Transit corridor.

What is Transit-Oriented Development?

Transit-Oriented Development, or TOD, by definition is the integration of transportation with surrounding land uses. This integration is accomplished through urban design, zoning, community development, and supportive infrastructure investments and results in neighborhoods where residents and workers can get around without a car. Rather than being defined by a particular mix of uses at a particular density, successful TOD is defined by shared traits like neighborhoods that foster transportation choices of all kinds and healthy communities with vibrant commercial districts serving the daily needs of the residents.

TOD Opportunities and Constraints

Many Allegheny County neighborhoods have characteristics of TOD, but topography and other barriers often limit full access to the transit stations or between neighborhoods.

An advantage of most Allegheny County communities served by fixed-guideway transit is their physical form. Unlike many other regions, which would have to tear down or retrofit entire neighborhoods to support walkability, most neighborhoods around existing fixed-guideway stations could become significantly more transit-oriented with small- or moderate-scale, strategic access improvements.

However, many historic transit lines have been dismantled, leaving walkable communities that have become isolated from the region's major job centers. And for many of the areas that have retained fixed-guideway transit (e.g. the Red Line corridor), topography presents an access challenge to getting to stations, especially in communities with aging populations. In the case of the East Busway, the transit infrastructure itself, which operates alongside a major freight rail corridor,

presents a physical and psychological barrier.

Economic and population patterns have shifted dramatically, but recent growth in the city of Pittsburgh suggests a surge in demand for TOD.

Demographically, the region's generation-long socioeconomic remake has left it as a region of contrasts. Though the region serves fewer workers than it did 40 years ago and has lost significant population due to de-industrialization, land consumption growth has mirrored similar-size regions. However, Allegheny County recently hit its record high number of jobs, and job sprawl has been minimal compared to similar-size regions. Workforce transit use is one of the highest in the country, and while walking and biking (and overall transit use) have dwindled with the compounding effects of suburbanization and population outmigration, the city of Pittsburgh has seen a 269% increase in bike commuting since 2000 and ranks 5th amoung metros in bike/walk commuter mode share, 8th in transit commuters, and 7th in the combined active transportation category. The county and larger region lag significantly behind the city. However, through transit-oriented development, an opportunity exists to catalyze on Pittsburgh's history of walking and transit to expand affordable transportation choices to more residents. Both the city and region have recently reversed the long decline of population and continued aging of that population. The city itself, now significantly younger than the national average, has gained population as has the region. Both trends reinforce the need for investments around transit of all sorts - TOD, market-based capital investments, and operational improvements – as national demographic preferences show an increasing preference for transportation choice by young professionals.

Access improvements will play a key role in stimulating economic revitalization in many communities.

The Pittsburgh Community Reinvestment Group (PCRG), through its GoBurgh Initiative, and PCRG's members are interested in transit and TOD because they

understand the enormous impact that access improvements can have on the vitality of the neighborhoods in which they work. One of the most vivid regional illustrations of this point took place when PennDOT restored parts of the Penn Circle loop in East Liberty to its historic, two-way traffic pattern at the urging of the community, developers and prospective tenants, including Target and Whole Foods. Such access changes may seem minor but can unlock significant pent up potential for reinvestment in communities by calming traffic and livening the street.

Access improvements that result in economic revitalization extend well beyond the experience in East Liberty. In every interview that this report's authors conducted with CDCs, other neighborhood groups, and municipal representatives throughout the region, access improvements floated to the top of the list of key activities that could contribute to economic revitalization.

Many communities lack the paid staff time needed to implement these changes. While some neighborhoods and municipalities have highly experienced planning staff or community development corporations in place to support TOD planning and implementation, some neighborhoods within Pittsburgh, boroughs, and townships lack staff who can advocate on a daily basis on their behalf. But the economic revitalization of these communities depends on giving them the tools to zone for and implement their own area plans.

Transit and TOD are also key to future regional economic competitiveness.

With these access challenges and their impact on the vitality of neighborhoods, Allegheny County faces critical choices in how it invests in moving residents around. To ensure that downtown Pittsburgh can add jobs and remain competitive with suburban job centers, new investments to improve commute times are necessary. The good news is that improving access to the region's transit system could help alleviate road congestion and offer an alternative to those bottlenecked

drivers. If traffic continues to worsen, transit becomes all the more attractive, offering commuters less time spent traveling. The even better news is that improving transit access is a cheaper option: fundamentally, widening roads into hillsides will be vastly more expensive and intrusive into nearby communities than improving access to station areas and increasing transit frequency.

By tapping into the region's transit assets, uplifting surrounding neighborhoods, and highlighting their access to major centers of economic activity like Downtown and Oakland, the region can continue to capture the young professionals interested in living in neighborhoods where they don't need a car and can walk, bike, or take transit to work, to see friends and run errands. Neighborhoods near fixed-guideway stations will draw both investors and new potential residents seeking a certain quality of life.

Transit Operations and TOD

With the Port Authority facing perhaps the largest fiscal crisis in its history, it may seem like transit-oriented development is a low priority where transportation issues are concerned. However, the converse is true – the time has never been better. By reinvesting in the land uses and street infrastructure surrounding the Port Authority's fixed-guideway system, TOD will ultimately make accessing and using the system a significantly easier and more pleasant experience. This in turn could significantly boost ridership and farebox recovery for the Port Authority. TOD cannot fill the operating deficit, but can play a significant role in ensuring that the revenue generated through ridership is bolstered and stable.

Of course, TOD requires stable, reliable transit service in order to work. To ensure that investors and new residents and businesses are willing to plant roots in the communities with fixed-guideway stations, they must be sure that the stations are going to be a permanent asset. Solving the Port Authority's fiscal crisis will be a key step to ensure TOD – and its related benefits – move forward. Conversely,

any financially-driven service alterations should place higher priority on preserving or even increasing fixed-guideway service to preserve the core system and keep transit- and place-based investment viable and attractive.

TOD Implementation Activities & Priorities

While new development can play a key role in TOD, it is not necessarily the first, or best place, for many neighborhoods to start achieving the goals of TOD. This is particularly true in neighborhoods that are already fairly walkable but which lack the market strength to catalyze new development. This strategy divides TOD implementation activities into five distinct categories:

- Capacity Building, Visioning, and Planning
- Local Access Improvements
- Revitalization and Building Re-use
- New Development
- Regional Access and Transit System Improvements

Each of these categories encompasses a broad range of activities that may be more appropriate in some station areas than others. These are described in Chapter III.

The TOD Typology

Given the sheer size and reach of Pittsburgh's fixed-guideway transit system, TOD implementation at the countywide scale can seem daunting. With over 100 light rail and busway stations and limited resources to address their diverse needs, the time is right to strategically organize and guide efforts to optimize the system through planning and community development.

The typology, or method of sorting the region's busway and rail station areas into different types, is designed to help PCRG and its local partners better leverage TOD potential across the region. The typology classifies station areas into five place types that have similar implementation needs. *The typology does not supplant*

local planning efforts, but rather helps guide and focus community development activities in smaller communities and lower-capacity neighborhoods as the real estate market steadily rebounds.

By factoring in existing elements of the built (*places*), social (*people*) and development and political (*potential*) environments, the typology is a holistic measure of a community's current overall transit orientation and relative market strength. On one axis it includes a composite transit orientation index that captures a blend of existing physical and social characteristics proven to generate transit ridership and walking and biking trips. This index includes the following specific measures of transit orientation:

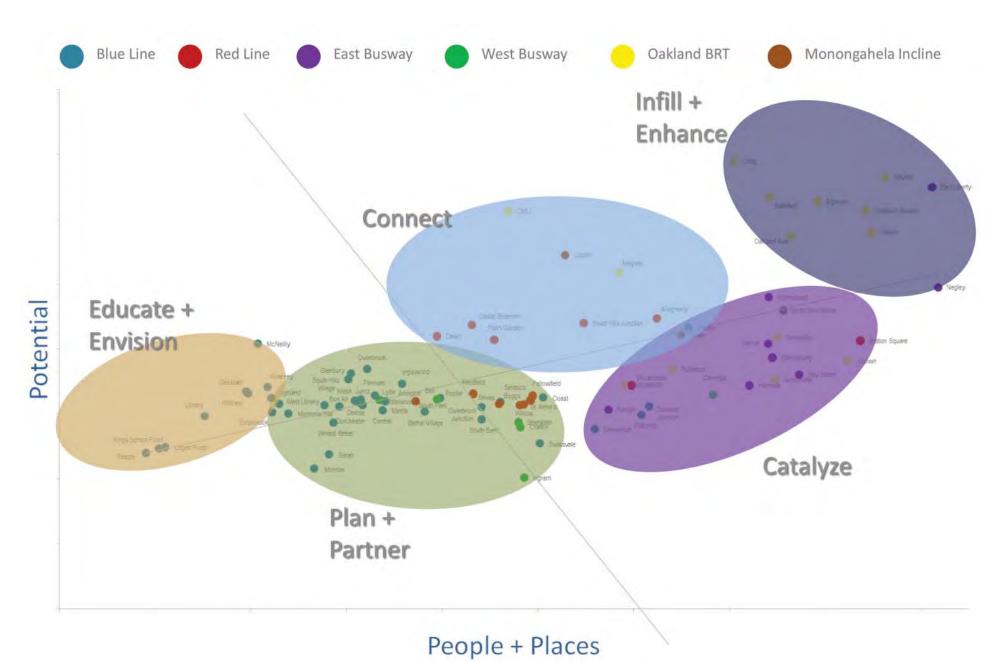
- People: The number of residents and workers in an area has a direct correlation with reduced auto trips;
- Places: Areas with commercial urban amenities such as restaurants, grocers, and specialty retail not only allow residents to complete daily activities without getting in a car, but they also improve the likelihood of higher density development by increasing residential land values;
- Physical Form: Small block sizes promote more compact development and walkability;
- *Population:* The percentage of households with access to one or fewer vehicles reflects the transit dependence of a station area;
- *Proximity:* Transit travel times to a region's major employment and activity center is a proxy for regional accessibility. An extensive recent meta-analysis of land use and travel behavior studies found that vehicle miles traveled are inversely related with distance to a region's core downtown.

The other axis of the typology measures the near-term potential for new investment and development within station areas. To capture the existing market conditions and future market potential of individual transit communities, this axis also uses a composite measure comprised of the following factors. Again, these factors are kept somewhat basic and can be updated over time as station area conditions change:

- Sales: Average real estate sales per square foot from 2000 to 2011. By controlling for size and capturing sales over multiple market cycles, this measure provides a relative order of magnitude comparison over time;
- *Rents:* Average residential rents based on 2010 Census data. Higher achievable rents are more likely to attract new TOD market interest;
- Land Availability: Acres of underutilized land within each station area.
 Some land but not an excess of land should be available for new development to offer potential for change;
- *Capacity:* Qualitative rating of a station area's public and private capacity to attract and foster development. Factors going into this rating included, but were not limited to, planning initiatives (station area planning, zoning); the presence of a redevelopment authority; recent development activity; and the relative experience of community development organizations in community organizing, planning, implementation, and securing funding and financing for projects.

The juxtaposition of the People + Places (transit orientation) and Potential (for new investment) axes provides the framework whereby the county's busway, T, Monongahela Incline, and planned Downtown-Oakland BRT stations can be clustered in a series of implementation place types. *Figure ExS-1* illustrates how each station area scores in terms of the two axes. Generally speaking, the East Busway and proposed Downtown-Oakland BRT stations perform at the higher ends of both spectrums. While inner Red Line and West Busway stations score moderately well on both measures, the more suburban Blue Line stations tend to

Figure ExS-1: Five Place Types Based on TOD Orientation (People + Places) and Investment Potential



demonstrate lower performance in terms of the physical, social and market environments.

By identifying station areas that naturally cluster together on these two axes, it is possible to generate implementation place types where the needs and opportunities are similar.

These place types are:

- Infill + Enhance
- Catalyze
- Connect
- Plan + Partner
- Educate + Envision

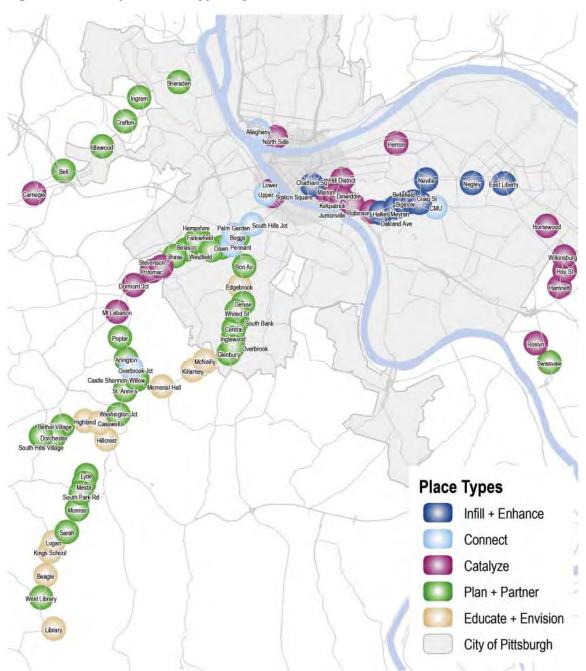
Figure ExS-2 provides a map of the station area place types.

Prioritization

The place types inform the prioritization of the implementation activities described in the previous chapter. With scarce time and financial resources available for implementation, it will be important for county, regional, and statewide agencies, advocates, philanthropy and other actors to make systematic, informed investments that leverage the greatest impact in station areas. Certain activities will be more effective in some place types than others. *Table IV-1*, in Chapter IV, shows broadly how the clusters of activities could be prioritized in the different place types based on whether they would be more or less able to leverage significant change.

The place type information and data behind each station area can also inform community-based groups and municipalities in understanding the needs in their station areas. Appendices B

Figure ExS-2: Map of Place Types by Station Area



and C offer more detailed data and charts showing the relative performance of each station area on the eight indicators that are used to create the place types. By identifying indicators where station areas score lower than their peers, local groups and agencies can consider the range of TOD implementation strategies that might help address these shortcomings and increase the potential for TOD.

Place Type Findings

Below are some of the overall findings about the various needs for transit-oriented development, based on the classification of the region's 100 station areas into the above five place types.

Infill + Enhance

• Much of the proposed Oakland-Downtown corridor already outperforms the existing fixed-guideway transit network in its transit orientation and market potential. The majority (7 of 9) of the Infill + Enhance station areas are along the proposed BRT corridor. Higher-quality transit, placemaking, and access improvements to stations along this corridor could help capture the pent-up demand for TOD from these areas and within the

Catalyze station areas in the Hill District and Uptown.

• Interventions to catalyze TOD should be modest to minimal in these station areas. Following the matrix in *Table ExS-1*, prioritization of financial public investment or organizational capacity in these areas is at a lower priority than for other place types. All Infill+Enhance place types already enjoy strong market and physical form, and have a high degree of capacity on the ground for TOD. Scarce resources should be focused in other areas.

Catalyze + Connect

- 28 station areas fall into either the Catalyze or Connect place types.

 The concept behind both the "Catalyze" and "Connect" place types is that transit-oriented development is achievable with minor investments. Small to moderate investments in these station areas could significantly boost regional economic competitiveness by offering ample opportunities for a high quality, transit-rich lifestyle.
- Many of these station areas need some kind of pedestrian access enhancement in order to catalyze TOD. Clearly, the station areas falling into

Table ExS-1: Prioritization of Implementation Activities by Place Type

	Building Capacity of Local TOD Champions	Planning/ Visioning	Access Improvements	Community and Economic Revitalization	Catalytic Development
Infill & Enhance	Low	Low	Medium	Medium	Medium
Catalyze	High	Medium	Medium	High	High
Connect	Medium	High	High	Medium	High
Plan & Partner	High	High	Medium	Low	Low
Educate & Envision	Medium	Medium	Low	Low	Low

the Connect place type are in need of pedestrian and bicycle improvements. Yet, even among the many Catalyze station areas on the East Busway, increasing pedestrian access – particularly over or under the East Busway alignment – has already been identified as a key revitalization strategy. This reinforces the need for new funding sources to help pay for improvements such as pedestrian bridges and tunnels, sidewalk enhancements and bicycle lanes.

- There is a need to increase the capacity and coordination of both public agency staff and community groups in some of these station areas. One recommendation is to develop a regional program to increase capacity by leveraging the experience of high capacity neighborhoods, and offering technical assistance and best practices, potentially along transit corridors.
- These station areas represent the best "bang for your buck" in terms of both capital and capacity investments to catalyze TOD. Targeted investments in these station areas could yield the largest return for TOD due to their place type. More information on suggested station area activities, for both Catalyze + Connect, are provided within this report.

Plan + Partner

- The majority of station areas fall within the Plan + Partner place type.

 Therefore, further evaluation and monitoring of these station areas is needed to identify locations with an interest in transit-oriented development.
- Plan + Partner place types, in their current state, are not strong candidates for infrastructure investments. A lack of the necessary capacity, market forces, and/or physical form mean that significant infrastructure investments in these place types, at this time, would yield little return in regards to TOD.
- Offering regional incentives to plan for TOD, such as readily available planning or infrastructure grants, could help identify the interested sta-

tions in need of support. While not all of the Plan + Partner station areas may be interested in TOD today, those that are should receive technical support if needed, in order to generate community support, create a vision, and develop a plan for implementation.

• Continued monitoring of these station areas is important. Since conditions and politics change over time, some Plan + Partner stations may shift into a different category and need further intervention.

Educate + Envision

Most Educate + Envision station areas are not strong candidates for TOD. Unless there is evidence that a community with an Educate + Envision station area is interested in TOD, these stations do not offer the urban form or support required to readily achieve TOD benefits.

Countywide Recommendations

Seven Key Strategies for TOD

Each station area in Allegheny County's system has its own set of implementation needs to support transit-oriented development. The typology offers a framework for prioritizing and understanding these needs at a glance. There are additionally seven strategies that agencies and advocates can deploy to support and catalyze momentum for transit-oriented development across the entire transit system, regardless of place type:

1. Modify transit station design and system operations to support TOD. There are a number of modifications that the Port Authority could make to the system that could provide a significant boost to the TOD potential of current station areas without necessarily increasing operating costs on the system. These include rebranding the busway lines and 28x, enhancing fare collection to be speedy and consistent, and offering timed

- transfers to other buses at fixed-guideway stations with visible signage and maps to facilitate those transfers. Improvements to existing stations including additional shelters, at-grade boarding, and bicycle storage could also support transit-oriented development by increasing the sense of permanence on the corridors. Further, additional planned fixed-guideway lines could enhance ridership, open connections to key destinations like Oakland, and allow for development near downtown Pittsburgh in the Strip District and Uptown neighborhoods.
- 2. Address gaps in funding availability for small- to midsize *infrastructure improvements.* The majority of stations in the system could benefit from small-scale infrastructure improvements in the form of pedestrian paths, bridges, and tunnels, improved sidewalks, bicycle lanes and other bicycle infrastructure, and station area signage. The 28 stations falling in the Catalyze + Connect place types are high priority locations, because these investments could have a transformative effect on the surrounding neighborhoods by boosting the ability of transit to be an economic and revitalizing asset for the communities. Many of the Plan + Partner and Infill + Enhance station areas, could also benefit from these improvements. However, the availability of funds for projects in the \$1 to \$5 million range is limited, and these can be significant projects for resource-constrained municipalities to take on without assistance. Regional, state or local funds can be used to fill this funding gap as can value capture mechanisms like TIF or TRID.

- **3.** Offer a consistent source of funds for station area visioning and planning. Many agencies outside the city of Pittsburgh do not have the resources to fund TOD plans themselves. Further, without the enticement of funding, some municipalities may not see any need to garner support for TOD principles in their station areas. State and regional agencies should offer more consistent tools to fund district and area wide planning.
- 4. Build capacity of agencies and community groups in Catalyze and Plan + Partner station areas. Public agencies and community groups in some Catalyze and Plan + Partner station areas may not have the capacity to advocate for TOD-related strategies. They may lack experienced paid planning staff, may need additional expertise in securing funding for activities and projects, or may need technical support on specific planning efforts. This could be addressed through the development of a regional capacity building system that leverages technical expertise of more experienced CDCs and agency staff, public incentives such as grant programs for TOD planning, or corridor working groups that are used to share information and advocate on behalf of larger, corridor-wide issues.
- 5. Integrate the typology approach into regional and corridor sustainability efforts. The typology approach developed for this Strategy has been designed to be quantitative and replicable over time. Further, the data behind the typology is available at the countywide or even regional scale, meaning the typology could be replicated for other corridors, neighborhoods, or communities. The largely quantitative nature of the typology also provides a relatively neutral tool for making decisions about the allocation of funding for agencies such as Allegheny County or the Southwestern Pennsylvania Commission, which are responsible to every municipality regardless of transit proximity. As a result, this typology will make an excellent tool to inform future investment decisions, or to simply

evaluate the needs of different communities in order to support greater transportation choices and alleviate congestion.

- 6. Pursue regulatory changes to support TOD and transit use near central destinations. Regional destinations into which the transit system feeds are unique locations where regulatory changes can change the behavior of transit riders, drivers, and commuters from across the region. These areas are therefore regional priorities for dynamic, thoughtful parking pricing, zoning and other land use regulation, and ongoing monitoring and response of regulations as conditions change.
- 7. Create a short-term work plan identifying key typology-informed actions for PCRG's GoBurgh Initiative. GoBurgh already plays a key role in advocating for modifications to transit policy. GoBurgh is a key leader in advocating for many of the strategies above, and developing future capacity building and TOD implementation systems.