

Commercial Landscapes Series

Building Communities with Transit Oriented Development





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Purpose

This document is one of four in a planning series known as “Commercial Landscapes” (Office Parks, Transit Oriented Development (TOD), Brownfields, and Greyfields). The series serves as a collaborative effort between county agencies and county stakeholders focused on improving critical commercial areas located throughout the county. The goal is to provide a planning tool that offers guidance to municipal officials and professional planners, developers, and property owners about how to maximize the value of these commercial areas today and in the future to better implement the goals in municipal and county policy documents (Landscapes2, the County’s Comprehensive Plan and VISTA 2025, the County’s Economic Development Strategy). This series will also play a major role as a planning tool for Landscapes3, the County Comprehensive Plan update.

This document presents a set of guidelines and strategies to assist in the implementation of Transit Oriented Development for communities in Chester County. The purpose is to educate communities on the importance of TOD and provide guidance and processes on how to implement a successful TOD.



What is Transit Oriented Development (TOD)?

“TOD is a compact, mixed use development within an easy walk of a transit station. Its pedestrian-oriented design encourages residents and workers to drive their cars less and ride mass transit more. These “transit villages” are usually moderate to high density, and can be new construction or redevelopment. Mixed uses typically include residential, commercial, and office, or some combination.”

– Delaware Valley’s Regional Planning Commission (DVRPC) definition of TOD



Transit Oriented Development is not a new topic when it comes to planning and development in Chester County. It is a viable smart growth development option that provides great opportunities for development adjacent to public transportation centers and stations located in growth areas. The principles of TOD encourage people to use transit or walk to get to their destination rather than relying solely on the automobile. TODs can also be a catalyst for sustainable economic development by providing a sense of place with a mixture of uses, housing options, and amenities that cater to all generations.

To date, there has been limited use of TOD in Chester County. This may have to do with perceptions of TOD and the misconceptions that come with it, which include but are not limited to the following: density, traffic congestion, fiscal impact, and crime. Recent trends have indicated that Chester County's

population will grow an additional 146,344 people by 2045, much of which will occur in urban and suburban areas. Development options such as TOD can guide population growth and encourage development in the county's growth areas, while helping to preserve the county's open space. Many centers within the region are building compact walkable development, such as TOD, to accommodate both Millennials and Baby Boomers.

The Chester County Planning Commission with the assistance of the Commercial Landscapes Taskforce have developed key strategies and recommendations to better understand TOD and the steps it takes to implement them while dealing with the issues that impede them and the effects they have on the community.

Benefits

Transit Oriented Development improves mobility and stimulates economic activity, particularly in the urban and suburban setting. When done correctly, TOD provides a number of environmental, economic, quality of life and transportation benefits which include but are not limited to the following:



Environmental benefits

- Reduces vehicle miles traveled and lowers energy use by reducing greenhouse gases and the reliance on individual automobiles.
- Improves air quality, by reducing auto usage in urban and suburban areas.
- Reduces the need for the expansion of public infrastructure, such as sewer/water systems, and maximizes existing capacities.
- Reduces land consumption and helps to preserve open space and undeveloped land by directing higher density development to developed urbanized areas.



Economic benefits

- Creates an economic development catalyst by using the existing infrastructure more efficiently and making surrounding area more marketable.
- Raises local tax revenues by promoting mixed-use infill and redevelopment of parcels adjacent to transit center/stations.
- Attracts various household incomes, which in-turn increases adjacent land and home values.
- Increases disposable household income, by reducing auto dependency and ownership costs.



Quality-of-life benefits

- Provides a mixture of uses and amenities that promotes pedestrian/bicycle mobility that leads to better health.
- Encourages a sense of community and creates and/or enhances places, such as village centers and parks where people meet and interact.
- Increases safety by creating extended hour activity centers due to mixture of uses at or adjacent to the station.



Transportation benefits

- Provides transportation choices for residents and reduces auto-dependency and allows access to a variety of destinations when multiple transportation modes are available.
- Increases transit ridership, by providing higher density development, and by improving the sense of place at or adjacent to a railroad station or transit stop.
- Reduces the need to make large investments in highway enhancements.

Obstacles

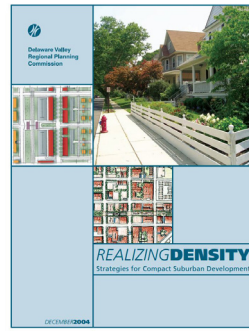
There are a number of limitations associated with TOD, particularly how it is perceived. Acceptance of a highly dense, mixed-use style of development can be difficult to achieve if the following obstacles impede or are not thoroughly planned for when implementing a TOD.

Perceptions

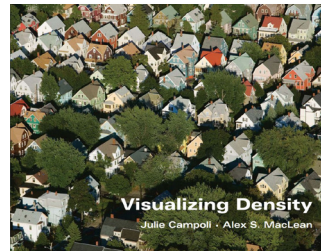
Concern about density

Overcrowding, decreased property values, consuming open space, traffic congestion, increased building height, crime, fiscal impacts (particularly schools) are just some of the words used when people think of density. In most cases actual built developments with higher densities are just the opposite of the above buzz words. Municipalities that establish the most suitable density per station area through proper planning and public outreach implement successful TOD.

More information about density types and perceptions can be found within the following resources:



[DVRPC's Realizing Density: Strategies for Compact Suburban Development ▶](#)



[Lincoln Institute of Land Policy: Visualizing Density ▶](#)



Reluctance to adopt change

Other obstacles experienced when implementing TOD is the way the public interprets the project and the perception of how it would change the existing community character. Some TOD projects are not welcome by the public due to a resistance to change, even when a project that has the support of local officials. The public may see proposals for multi-story, mixed-use developments around train stations as out of place, particularly in Chester County where single-family homes surround many of the stations. Educating the public and having a TOD planning document that represents the community is important to realign these perceptions and the key to getting community support.



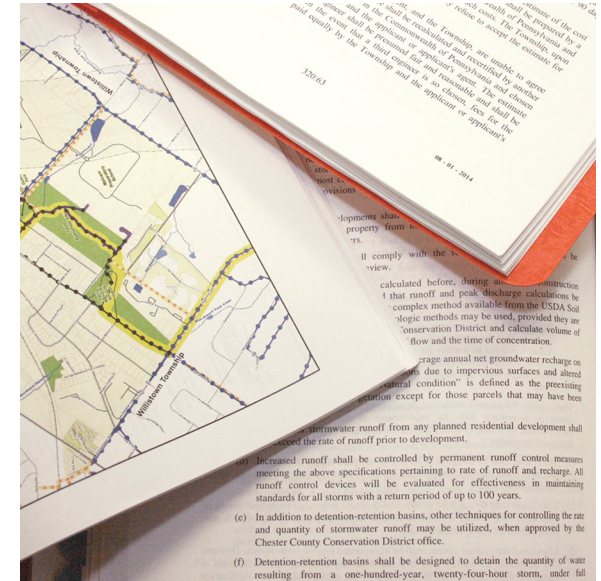
Costs of development

High density, mixed-use developments can be a risky investment for developers to build. These developments are not only subject to additional regulations and a longer planning approval process; they also involve higher cost of parking, construction, and soft costs that may deter them from being built. There are limited public funding programs available for TOD so the financial feasibility of funding such a development privately could get in the way. Public-private partnerships, establishing redevelopment districts and educating lenders may make it easier to obtain financing for TOD.



Site and market constraints

Site constraints can be a major barrier for any type of development or redevelopment. Environmental concerns such as site contamination, floodplain restricting, stormwater management, and preserving habitats could increase the cost of building, making the site economically unviable. Additionally, infill sites, parcel size and site control of many small lots can also pose constraints. Having an accurate knowledge of the market for developments like TOD is necessary for any developer and/or lender to initiate investment in a site. Proper research and analysis is needed to assist in understanding what potential constraints exist and what will be needed prior to investing in a site.



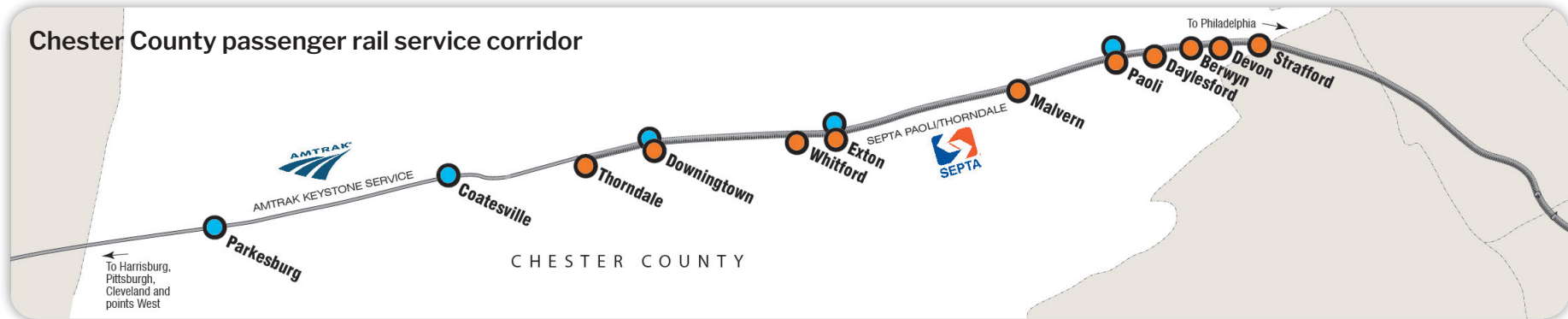
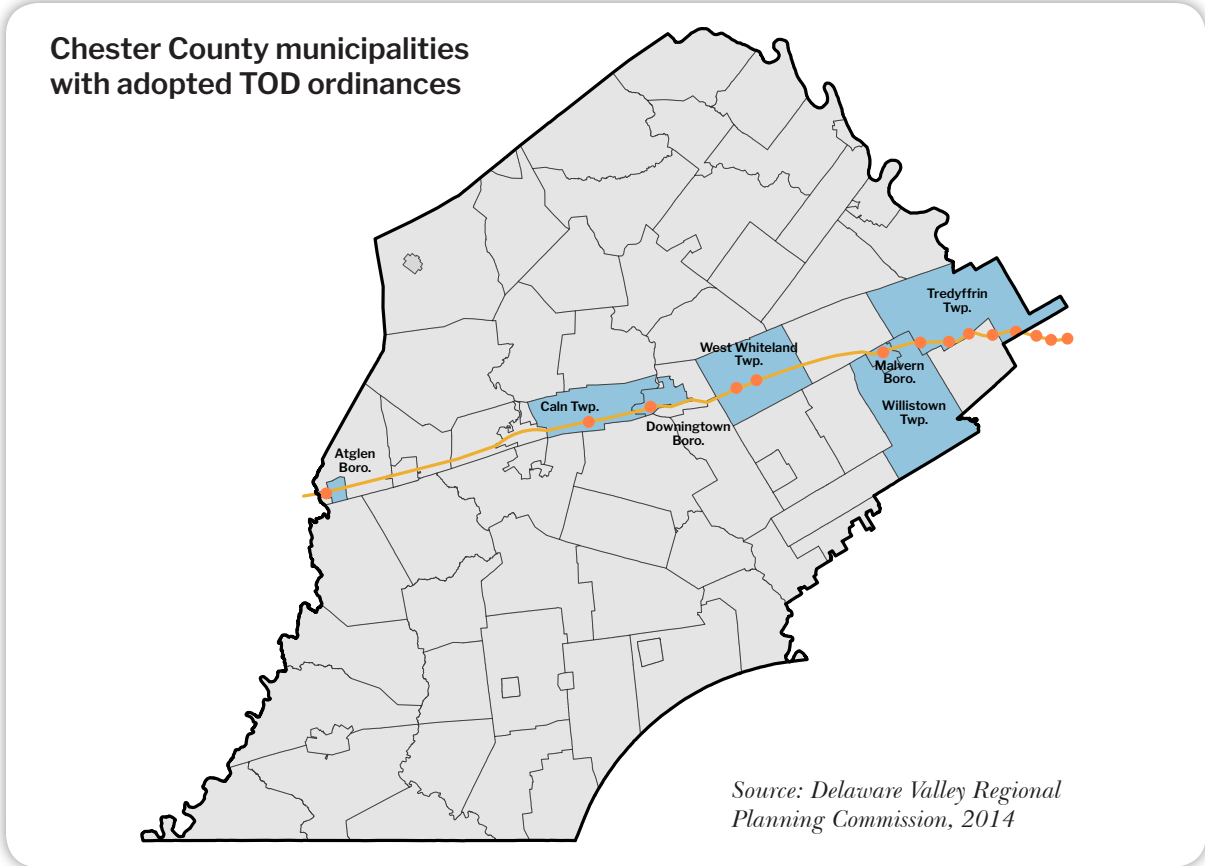
Government policy and regulatory hurdles

Municipalities and other government agencies may have outdated and/or ordinances that could interfere with implementing TOD. Long planning/permitting processes, increased parking requirements, open space and other land use controls are not set up to implement TOD which require additional approvals and conditions. A more streamlined planning and permitting process is needed to reduce resistance to TOD. Policies and regulatory standards should be aligned to show where development such as TOD should occur.

Overview of Chester County TOD

Policy, regulatory, and market assessment

As of 2017, Chester County has seven municipalities (Atglen, Caln, Downingtown, Malvern, Tredyffrin, West Whiteland, and Willistown) that have adopted ordinances that call for TOD standards. These seven municipalities were evaluated to see what policies, regulatory standards and market trends are associated with TOD. Other municipalities with train stations, such as Coatesville, Easttown, and Parkesburg have few or no standards associated with TOD.



Source: Chester County Ride Guide, 2015

Comprehensive plan and zoning assessment

Most municipalities in this analysis included recommendations in their comprehensive plans for TOD style development to occur adjacent to train stations. These recommendations also corresponded to areas on the future land use map and recommend updating the zoning ordinance to include TOD provisions.

The TOD options within each municipal ordinances accommodate for supporting TOD principles and allowed “By-right” uses. These include but are not limited to: multi-family dwellings, retail stores, offices, restaurants (excluding drive-in facilities), structured parking, and mixed-use options.

Population and market assessment

ESRI’s Business Analyst is a GIS-based subscription service providing economic data, customer profiling and market analysis. This tool was used to show the demographics, household lifemode or **Tapestry Segmentations**, as well as market supply and demand for the 12 train station areas (within a half mile radius) in Chester County. Table 1 shows basic demographics for the 12 train station areas.

Table 1: Chester County train stations: Demographics

Station Area (1/2 mile)	Population	Households	Median Disposable Income
Strafford	3,580	1,501	\$61,901
Devon	1,731	693	\$76,116
Berwyn	2,244	990	\$69,599
Daylesford	1,563	644	\$85,604
Paoli	3,124	1,371	\$61,748
Malvern	2,560	1,112	\$53,509
Exton	3,184	1,350	\$72,927
Whitford	714	263	\$86,238
Downingtown	3,458	1,282	\$42,202
Thorndale	1,484	602	\$60,503
Coatesville	5,597	2,001	\$28,301
Parkesburg	3,187	1,194	\$50,627

Source: ESRI Business Analyst: Tapestry Segmentation Data, 2016

ESRI's Tapestry Segmentation is divided into 67 Lifemode Segments. These segments represent accurate detailed descriptions of America's neighborhoods based on their socio-economic and demographic composition. Table 2 shows the main U.S. Lifemode Segment in each train station area with corresponding information about each segment and a report.

The train station area reports, when summarized indicate that both Generations X and Y (median age 28-40) have a large presence across Paoli-Thorndale corridor predominantly in the Stafford area and the six station areas west of Malvern (70-100% of households). While the older Generation X and Baby Boomers cohort (median age 42-51+) demonstrate a large presence in the Devon-Malvern station areas (55-100% of households). This showcases both a geographical housing and a cost of living trend that exists in the county.



Table 2: Chester County train stations: Tapestry Segmentation lifestyle groups

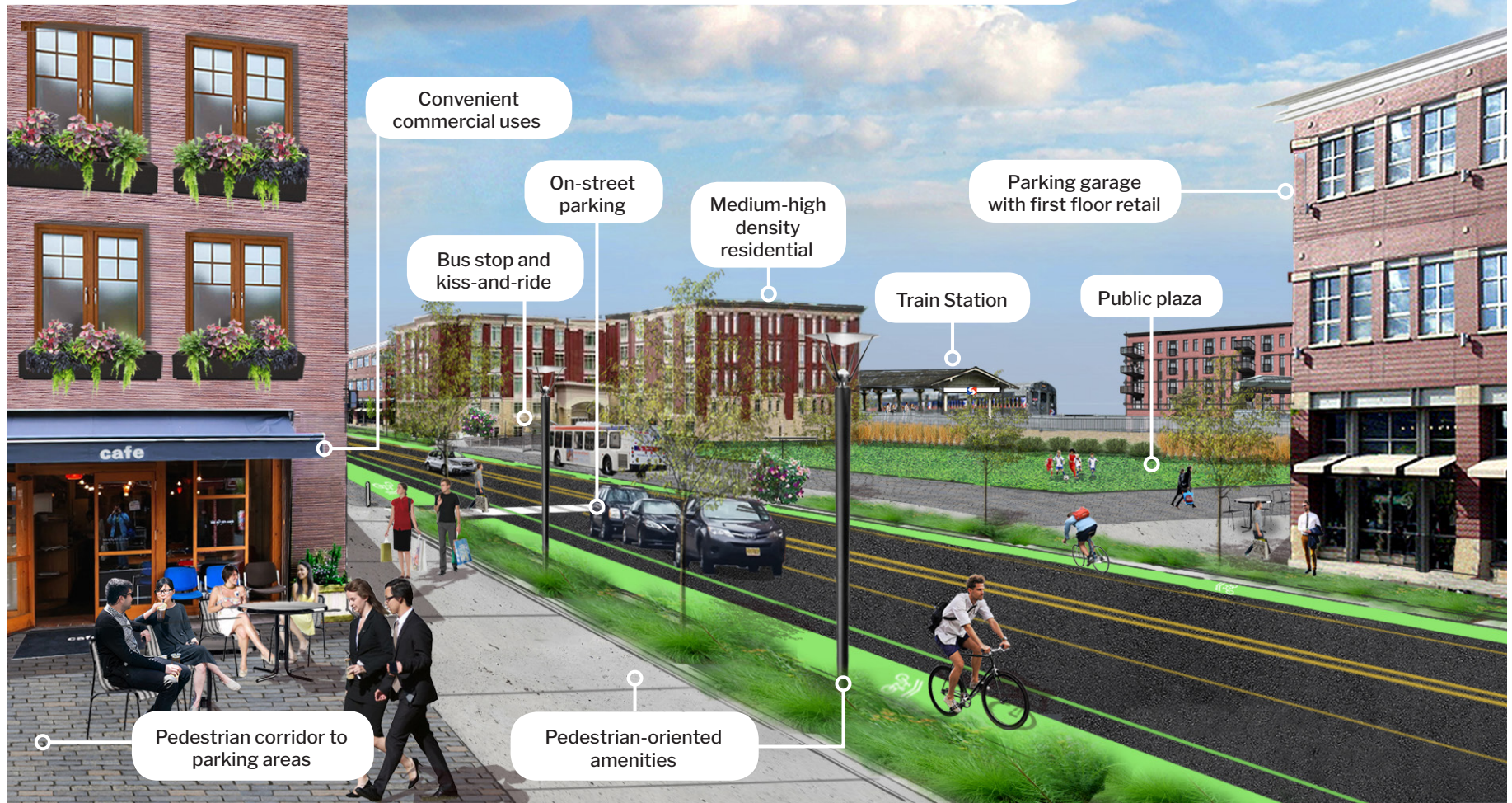
Station Area (1/2 mile)	Lifemode Segment #1 (% of households)	Lifemode Segment References			Report Links
		Median Age	Housing Preferences	Median Household Income*	
Stafford	Trendsetters ▶ (35.6)	35.5	Rent MF Homes	\$51,000	Report ▶
Devon	Urban Chic ▶ (46.4)	42.6	Own SF Homes	\$98,000	Report ▶
Berwyn	Urban Chic ▶ (46.4)	42.6	Own SF Homes	\$98,000	Report ▶
Dayleford	Exurbanites ▶ (44.)	49.6	Own SF Homes	\$98,000	Report ▶
Paoli	Golden Years ▶ (55.1)	51.0	Own SF Homes	\$61,000	Report ▶
Malvern	Golden Years ▶ (48.4)	51.0	Own SF Homes	\$61,000	Report ▶
Exton	Enterprising Professionals ▶ (100)	34.8	Own or Rent SF or MF	\$77,000	Report ▶
Whitford	Enterprising Professionals ▶ (98.9)	34.8	Own or Rent SF or MF	\$77,000	Report ▶
Downingtown	Parks and Rec ▶ (65.1)	40.3	Own SF Homes	\$55,000	Report ▶
Thorndale	Parks and Rec ▶ (42.7)	40.3	Own SF Homes	\$55,000	Report ▶
Coatesville	Fresh Ambitions ▶ (42.3)	28.0	Rent MF Homes	\$26,000	Report ▶
Parkeburg	Parks and Rec ▶ (66.4)	40.3	Own SF Homes	\$55,000	Report ▶

Source: ESRI Business Analyst: Tapestry Segmentation Data, 2016

* Median Household Income is the U.S. average income for the corresponding lifestyle group.

The Vision for TOD in Chester County

Development near transportation hubs will provide a mixture of land uses, create a sense of place, offer alternative living and working options, and reduce environmental impacts by improving walking, bicycling, and transit options. Transit Oriented Development will encourage investment in the county's growth areas and provide an attractive and easily-accessible destination for Chester County residents, businesses, and visitors.



How Do We Get There?

This section highlights key steps, strategies, provisions, and improvements to use when trying to implement a successful TOD under three separate planning areas. These planning areas provide realistic and tangible recommendations to achieve the overall vision from an organizational, regulatory and physical perspectives.

Organization

- Understand the “Ingredients of TOD”
- Build capacity and remove barriers
- Create inventories of potential sites
- Create vision and/or master plan
- Take advantage of funding and programs

Regulatory Guidance

- Use general ordinance standards for TOD
- Update zoning and subdivision land development ordinances
- Parking requirements
- TOD tools and model ordinance sources

Physical Improvements (Placemaking & Connectivity)

- Make the station a destination and part of the community
- Create a feeling of place
- Tools and programs to use

Organization

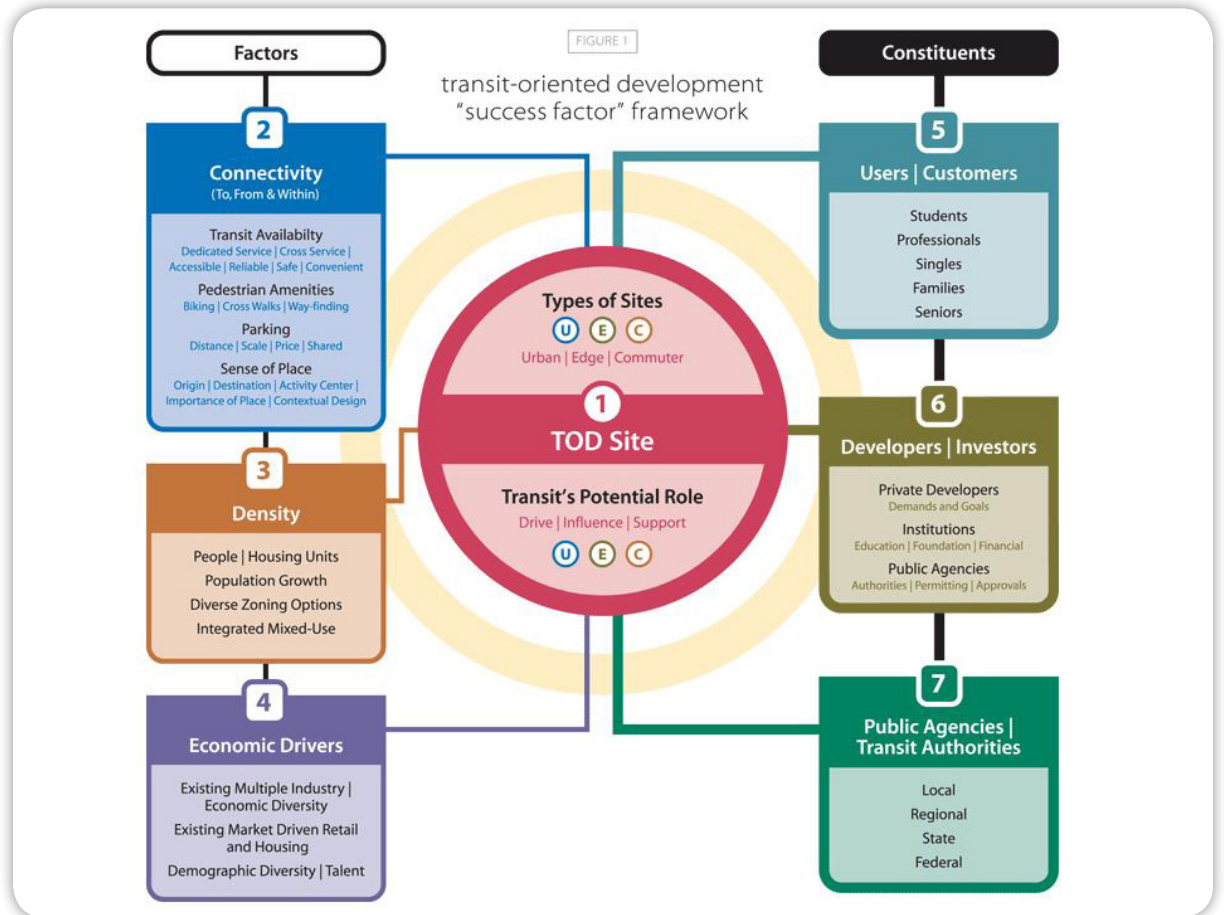
■ Understand the “Ingredients of TOD”

The Southwestern Pennsylvania Commission (SPC) created a document and website on how to plan for, fund and implement TOD. The following graphic showcases the overall framework of SPC’s Future Investments in TOD (FIT) and the factors and constituents needed to implement a successful TOD.

There are two critical factors that a site must have for a TOD:

1. The first of these, is transit. If a site does not have transit infrastructure (transit service, rail line, bus line, transfer center, major transit stop) presently or planned for the future, TOD is not a development option for this particular site.
2. The second factor critical to the success of TOD is employment density or the number of jobs within or have access to and from a site, which coincides directly with attracting or retaining people for live, work, play activities.

FIT’s “Ingredients of a TOD”



Source: Southwestern Pennsylvania Commission, 2017

It is important to remember that not every site exhibits every factor for TOD, as shown above (TOD Table) and factors that are currently deficient might be included or improved in a site’s master plan. Also, constituents play a key role in the development of a successful TOD and should always be involved and consulted.

For more information about SPC’s FIT. ►



This means having frequent contact with all parties involved, by scheduling regular meetings, providing up to date information and project timelines and to discussing issues and barriers to progress.

■ **Create inventories of potential sites for development**

It is important to evaluate development sites based on their unique issues (site issues, market, improvements, reuse). Before planning for any type of development certain questions should be asked:

- What are the development obstacles in place at these sites?
- What is the market potential for different uses at these sites?
- Is there a possible benefit to renovating or re-using the site?

■ **Build capacity and remove barriers**

Having a point person to lead and manage all aspects of the project is critical. Given the complexity of developing a successful TOD project, it is ideal to have a single point person or agency who can be dedicated to ensuring that the TOD project continues to move. The point person will also be responsible for identifying the proper stakeholders, as well as, being the mediator for all parties. Feedback from both municipal officials and developers in Chester County suggests that most TOD sites are both unique and complex and they need a project leader to guarantee their success.

Coordinating and working with primary stakeholders, such as residents, municipal officials, businesses, SEPTA, Amtrak, and PennDOT Central Office is essential. One of the primary responsibilities for all parties involved in a TOD development is to maintain a good working relationship with primary stakeholders.



The Paoli Train Station is an example of how municipal officials, transportation agencies and local stakeholders are working together to achieve a common redevelopment goal of the train station and its surrounding area. Amtrak/SEPTA project, 2016

The Delaware Valley Regional Planning Commission (DVRPC) has resources for inventorying and evaluating potential sites for TOD style development in the Greater Philadelphia Area. A recent DVRPC TOD evaluation—[Building on our Strengths: Evaluating TOD Opportunities in Greater Philadelphia](#) ▶ showcases the value of TOD opportunities in the region and provides the following trends for 161 existing station areas (1/2 mile) located within the region, which includes some Chester County stations. Table 3 showcases some of the findings from their latest TOD regional evaluation for the region's and Chester County's station areas.

Additional guidance for TOD from the regional level can be found in the following resources from DVRPC:

- [DVRPC—TOD webpage](#) ▶
- [DVRPC—Smart Growth project database](#) ▶



Berwyn Train Station serves as a focal-point to the village.

Table 3: DVRPC regional and Chester County station areas

Region Station Areas (1/2 miles)	Chester County Station Areas (1/2 miles)
Account for 4% of the region's land area.	Account for 1% of the region's land area.
Account for 28% of the region's jobs.	Account for 7% of the region's jobs.
Account for 21% of the region's population.	Account for 5% of the region's population.
50% of the region's centers are served by rail.	27% of the county's centers* are served by rail.

Source: Building on our Strengths: Evaluating TOD Opportunities in Greater Philadelphia: DVRPC, 2016

** County centers include urban and suburban centers per Landscapes2 designations.*

■ Create a clear vision and master plan

Engage the public

Before pursuing a TOD project, it is important to engage the public and municipal officials to both gain feedback from them and to demonstrate the benefits of TOD. A master plan should be created to better implement TOD options and expedite the process.

Have a clear vision

Policies and regulatory standards that reflect TOD principles will assist developers in the review and approval process.

Create a master plan

It is important to create a master plan early on while focusing on maintaining the character of the surrounding businesses and neighborhoods. Not all sites are the same and what may work in one site, may not work in the other. Many of these sites are located along corridors, in neighborhoods, urban cores and town centers. Each one is unique and should be designed to carry its own form and scale of development, while maintaining the existing character.

■ Take advantage of funding and programs

The following programs should be considered when planning for TOD. They include federal, state, local guidelines, resources, and funding. Primary contact agencies for the following programs are also provided.

- **Transit Revitalization Investment District Act (TRID)**

This state program allows communities to leverage state funding for planning and implementing TOD. For additional information about the program contact DVRPC or visit their [TRID webpage](#). ▶

- **Tax Increment Financing (TIF)**

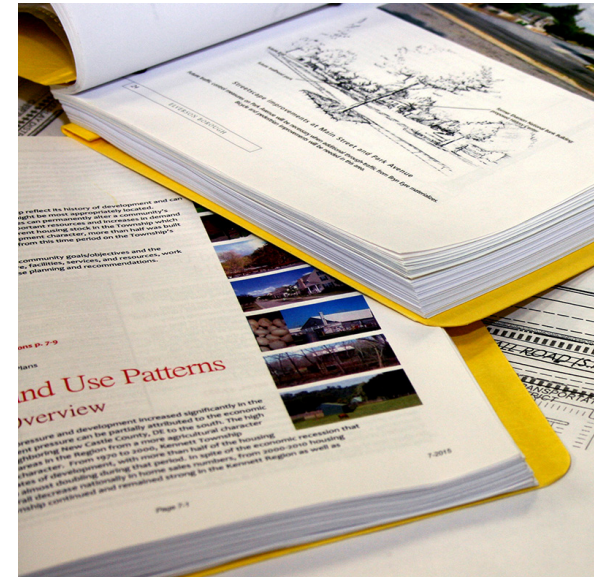
This financing program assists in the development, redevelopment, and revitalization of brownfield sites. For more information about the program contact the [Chester County Economic Development Council](#) ▶ or visit the [PADCED website](#). ▶

- **Business Improvement District (BID)**

This is a defined area within a community which businesses are required to pay an additional tax to assist to funding improvement projects within the districts borders. Chester County BID examples include: [West Chester Borough](#) ▶ and [Kennett Square](#) ▶ among others. Additional information can be found at the [Pennsylvania Downtown Center](#) ▶ or view the [BID presentation](#). ▶

- **Local Economic Revitalization Tax Assistance (LERTA)**

This tax incentive program encourages economic development in targeted areas with tax abatements of up to 100 percent on improvements to a property for up to 10 years. Chester County LERTA examples include: [Phoenixville Borough](#) ▶ and [Calm Township](#). ▶



- **DVRPC: Transportation Community Development Initiative (TCDI)**

This program assists communities in the Greater Philadelphia Area in funding planning projects that support land use and transportation systems. For more information about this program contact the Delaware Valley Regional Planning Commission or visit the [website](#). ▶

- **Chester County: Vision Partnership Program (VPP)**

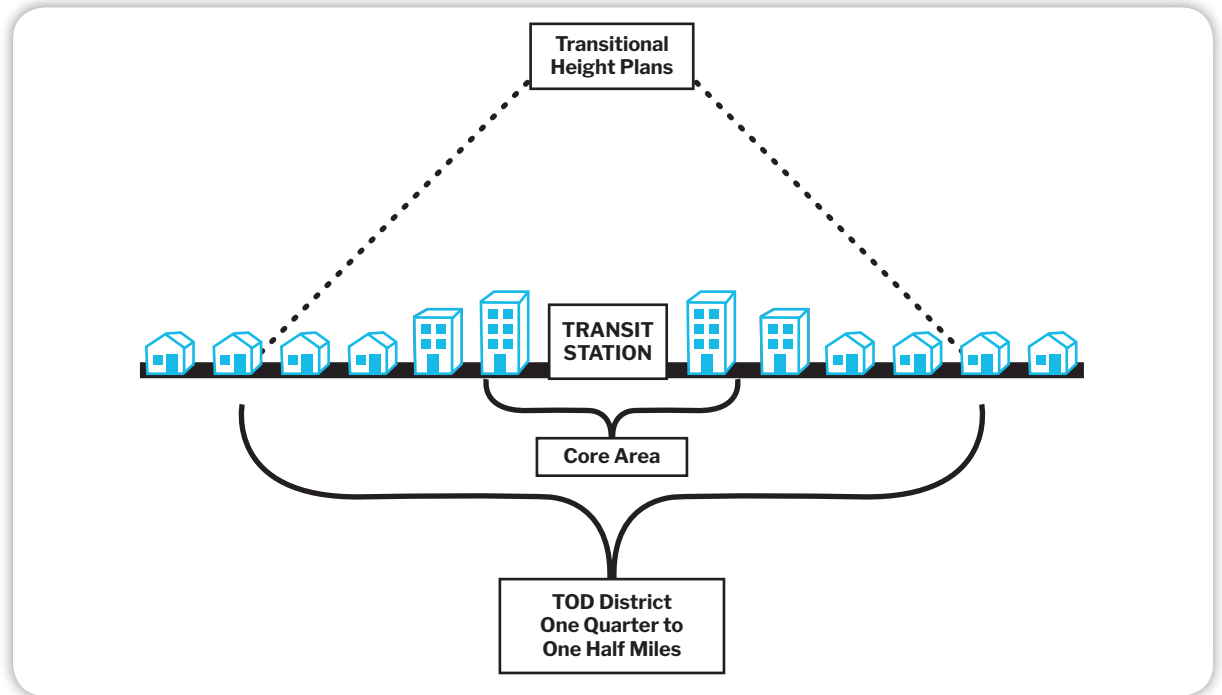
This grant program provides both technical and financial assistance to municipalities for planning projects only. For additional information please contact the [Chester County Planning Commission](#) or visit the [VPP webpage](#). ▶

Regulatory Guidance

To create a sense of place you must allow for an appropriate mix of uses. One size does not fit all and choosing the right combination helps to shape the quality of the space and develop community character. Addressing walkable design techniques and human-scale development along streets adjacent to the station assists in achieving this. The extent of development should be designed to be more compact and intense closer to the transit station and less so as it spreads outwards toward the more traditional suburban development patterns.

A Transit Oriented Development District would allow a greater variety of uses “by-right” while incorporating specific design elements in the subdivision and land development ordinances that encourages more intense development with a primarily pedestrian approach for residents within a half mile of the station. It should include regulations to encourage TOD appropriate design of these areas. The graphic to the right shows what a typical TOD cross-section would look like around a train station in Chester County.

TOD cross-section



Source: MARTA's TOD Guidelines, 2010



Downingtown and Malvern train stations are examples of centrally located stations that are easily accessible and cater to a more dense built environment.

■ General ordinance standards for TOD

Transit agencies typically own the station and surrounding land, however, do not control the zoning, which is regulated by the local municipality. Updating zoning provisions to encourage TOD can be approached in a variety of ways.

Table 4 lists specific ordinance components that promote TOD from the **PA Transit Oriented Development Toolkit** ▶ created in 2012. The table helps to define what components TOD should have in order to be implemented successfully. Chester County municipalities that have train stations should incorporate some of these components within their ordinances to accommodate TOD.

Table 4: Components that promote Transit Oriented Development

- Mixed-use “by-right” within ¼ mile radius of transit station with ground floor retail or other activities
- Compact, higher density development (Urban Center: 12-25 du/ac & 25-50 du/acre & 25-50 employees/ac) (Suburban Center: 7-15 du/ac & 25 employees/ac)
- Maximum set-back standards or build-to-line requirements
- Increased Floor Area Ratio (FAR) above 1.0 with increased building height 3.5 stories or more
- A reduction in the amount of required parking through a variety of parking strategies
- Allow higher density if underground or structured parking is included
- Require pedestrian and bicycle safety, access and amenities (human scale/walkable design)
- Prohibition of uses with drive-through service.
- Transfer Development Rights (TDR) program in conjunction with TOD to “soften” increased density
- Allow for Transit Overlay Zones or Transit Corridor Overlay Zones

Chester County municipalities with adopted TOD ordinances



Source: Delaware Valley Regional Planning Commission, 2014

■ Update zoning and subdivision and land development ordinances

To encourage human scale development and the creation of a “public realm” regulatory updates should provide for the appropriate “by-right” uses and design standards to create transit-friendly zoning in a TOD District. These districts should be flexible and set the right combination and scale of uses and advance planning concepts and design associated with them. These uses include, but are not limited to the following:

Zoning “by-right” uses

- Medium to high density
- Residential
- Retail
- Office
- Mixed-use
- Hotel
- Civic
- Institutional

Medium to high density



West Chester Borough

Mixed-use



East Side Flats, King St. Malvern Borough

Retail



Gay St. West Chester Borough

Civic



Spring City Borough

Office



Eagleview, Uwchlan Township

Universities and schools, government facilities



West Chester University, West Chester Borough

Ordinance design standards

The following recommendations are examples from Metropolitan Atlanta Rapid Transit Authority's (MARTA) TOD guidelines and should be customized to the scales of Chester County communities.

- To accommodate significant pedestrian activity, designing an unobstructed zone or sidewalk that is a minimum of 8 to 12 feet in width depending on street type and function.
 - Street trees should be planted a maximum of 30 feet on center and decorative pedestrian street lights should be placed a maximum of 60 feet on center and spaced at equal distances within the furniture and planting zone.
 - The minimum front setback will be different depending on where the site is located. Setbacks should be the minimum distance away from the right-of-way that would accommodate pedestrian amenities. At least 75% of the principal frontage of a building should be built with a zero setback and tiered from the right of way to preserve existing character and give access to light and air.
 - To maintain an appropriate scale relative to pedestrians, ground floor uses should be a maximum of 16 to 20 feet in height.
 - The first three stories of the buildings facing public streets should be delineated through the use of windows, belt courses, cornice lines or similar architectural elements.
- Primary pedestrian entrances should be oriented to the street and clearly visible.
 - The maximum travel lane for vehicles should be 11 to 12 feet in width depending on street type and function.
 - Streets should accommodate bicycle access with a dedicated bike lane that is 5 feet in width or 6 feet in width if adjacent to parallel parking.
 - To promote connectivity and walkability, new blocks should ideally be 400 feet in width and 400 feet in length. When site conditions do not permit an ideal block configuration, the maximum block length should not exceed 600 feet.
 - Additional design standards for implementing TOD style development can be found at the following: Montgomery County's [Creating Walkable, Transit-Friendly Places: New Town Mixed Use District Model Ordinance, 2010](#). ▶

Sidewalk with outdoor seating



Bridge St. Phoenixville Borough

On -street parking



King St. Malvern Borough

Dedicated Bike Lanes



Lincoln Hwy. (US 30) in the City of Coatesville

■ Parking requirements

In a TOD, parking requirements can be decreased as multi-modal transportation is the main goal. In reality, the car will still be a necessity for many users of transit, and parking will need to be accommodated. TOD development presents an opportunity to de-emphasize parking; rather than having surface parking lots dominate the landscape, TOD can have reduced parking that blends into the design. Table 5 showcases proposed parking requirements from MARTA's TOD guidelines and are generally lower than typical Chester County parking ratios. These guidelines along with Table 6: Parking best practices should be considered and customized to the scales for some Chester County communities.



Chestnut Square Apartments, West Chester Borough has two levels of underground parking (1.5+ spaces/du)

**Table 5:
MARTA's TOD proposed parking ratios
for a TOD District**

Proposed Parking Requirements		
Use	Minimum Required	Maximum Allowed
Residential		
General	1.0 space per unit	1.5 spaces per unit for 0-2BR; 2.0 spaces per unit for 3 BR+
Multi-family or attached within 600' of a transit station	.75 space per unit	1.25 spaces per unit
Office	1.5 space per 1,000 s.f.	2.5 space per 1,000 s.f.
Residential and Restaurant		
General	1.75 space per unit	3.3 spaces per 1,000 s.f.
Multi-family or attached within 600' of a transit station	no minimum	3.3 spaces per 1,000 s.f.

Source: MARTA TOD Guidelines, 2010

Table 6: Parking best practices

The following are additional parking best practices to take into consideration when implementing TOD:

- Parking, including structured parking facilities should be located at the periphery of the station site particularly in urban and suburban centers, to permit pedestrian-focused development closer to the station.
- The station site should provide preferred parking for car sharing services.
- Shared parking should be allowed “by-right”, and a formal shared parking agreement would be encouraged with parking areas that are owned and/or maintained by transit/transportation agencies.
- Parking decks and service entrances should be screened from the street or hidden with façade or architectural treatments.
- Development should place entrances for parking and service along side streets.
- New on-street parking in immediate proximity of a project should count towards minimum parking requirements.
- Any development that provides vehicular parking must also provide bicycle parking.

■ TOD tools and model ordinance sources

Implementation of TOD can be guided by policy documentations such as comprehensive plans, and redevelopment/master plans. The following is a listing of regulatory sources that provide TOD tools and model ordinance language to assist in the implementation of TODs:

Southwestern Pennsylvania Commission (SPC) FIT Model Zoning

The SPC developed model zoning code standards for a TOD Overlay District as a tool to guide municipalities interested in TOD implementation. The model regulations aim at accommodating different site types, identifying uses, and that would complement each type of site, and offered language for provisions that could be easily modified for a specific community's zoning code.

To view more information for [model zoning](#). ▶

Metropolitan Atlanta Rapid Transit Authority (MARTA) TOD Guidelines and TOD Overlay District:

MARTA developed guidelines for transit oriented development in order to develop greater ridership, promote sustainable growth, and generate transit investment. The guidelines focused on four key principles:

1. Compact area development, incorporating live, work, play opportunities within walking distance.
2. Mixture of land uses.
3. Creating a great space for the public realm.
4. Accommodating parking needs by blending them with the landscape, rather than making them dominant the design.

To view MARTA's [website](#). ▶

To view MARTA's [guidelines](#). ▶

EPA's Mixed-Use Development Trip Generation Tool

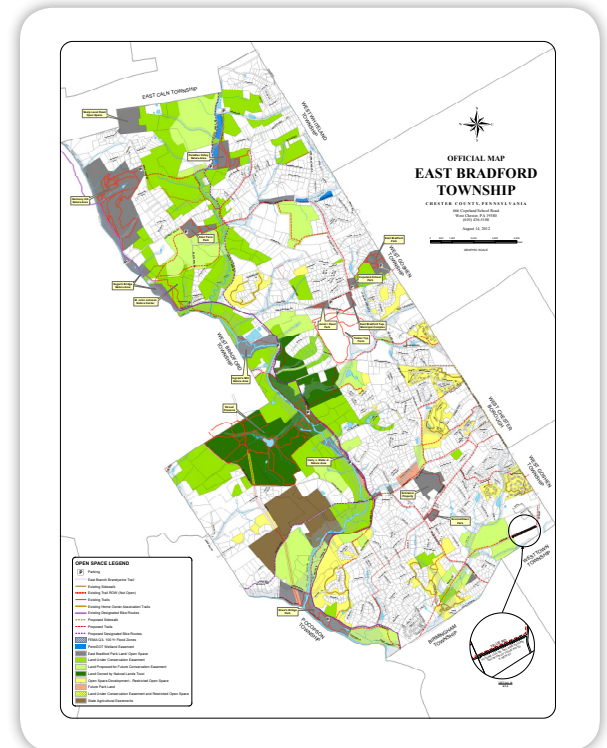
This tool uses default ITE Trip Generation Manual parameters and allows municipalities and developers to estimate vehicular trips generated by a proposed mixed-use development at peak periods during the day and assists with understanding the impacts a mix-use development has on the community and effect on the existing transportation system.

To view EPA's [trip generation tool](#). ▶

Official Map

The Official Map is a combined map and ordinance that identifies both existing and proposed public lands and facilities (transportation, recreation, open space) within the entire community to assist in the implementation of policy documents. The official map can assist in implementing TOD by preserving areas for public amenities such as sidewalks, trails, bike lanes and open space and other green space.

To view more information for the [Official Map](#). ▶



Physical Improvements

■ Make the station a destination and part of the community

To create a successful TOD, the station should be integrated into the community using a variety of physical improvements and design principles.

Immediate area should address pedestrian oriented amenities and focus on walkability and sense of place.

- Incorporate plazas with ample lighting, trees, seating, signage and public art to show an active pedestrian area or pedestrian zone.
- Install pocket parks and open space areas for gatherings spots and local events for transit users and visitors.
- Encourage convenient land uses such as coffee shops, restaurants, markets, libraries and other community uses should be located in this area to highlight a destination and pedestrian zone.

- Accommodate all transportation modes adjacent to train station areas by creating or enhancing facilities such bus stops, parking and ride hauling facilities (Uber and Lyft) to improve the overall user experience.

Parking for development, community and station should be shared.

Parking should be located on the periphery of the station area, while facilities such as kiss and rides, park and rides and parking for disabled persons should be located closest to the site. Additional parking areas should incorporate new technologies and/or signs to indicate number of spaces available (like the King Prussia Mall parking structures) and SEPTA train station parking areas.

Station area should accommodate pedestrian and bike amenities.

- Amenities such as bike lanes, trails, and sidewalks should have a clearly marked path to a station area. Connectivity of all modes should terminate at or near the station area.
- Bike parking lockers and shelters should also be present at the station site to enhance the overall user experience.

Plazas



Parking



Bicycle amenities



■ Create a feeling of place

Surrounding transportation infrastructure should be designed to be safe for all modes.

Encouraging the use of “Complete Street” principles, which includes wide sidewalks, street lighting and trees, signage, shelters for transit, bike lanes, stylized intersections and traffic calming for pedestrian safety and on-street parking.



West Chester Transportation Center provides pedestrian access and clear signage for users.

All development/redevelopment adjacent to the station area should be designed to a pedestrian scale to encourage placemaking.

- Buildings located adjacent to a station should be designed to fit the character of the existing area. To appear less daunting, designs may include build-to-lines and setbacks as the building increases in height and in approved density.
- Encourage first floor retail with outdoor seating if applicable, and allow for office, residential or other commercial uses on the floors above. Again this may vary pending on the location on the station site.
- Provide pedestrian accesses, walkways, and green space to break up building massing and create social meeting areas.



East Side Flats in Malvern Borough is an example of a mixed-use development with first floor retail and residential above within walking distance to a train station.



Main Street at Exton's plazas and green spaces are examples of pedestrian social meeting areas.

■ TOD tools and programs to use

The following programs will assist in the implementation of various elements of TOD. They include federal, state, regional and local resources and funding. Primary contact agencies for the following tools and programs are also provided.

Tools

- **AASHTO: Guide for the Planning, Design and Operation of Pedestrian Facilities**

The American Association of State Highway and Transportation Officials (AASHTO) sets technical standards for planning, design and construction of transportation facilities along streets and highways in this guide. [Link to guide.](#) ▶

- **Complete Streets Local Policy Workbook**

This publication outlines ten elements that make up a comprehensive complete street policy. [Link to workbook.](#) ▶

- **Chester County: Multi-Modal Handbook**

This handbook is a consolidated reference guide on how to incorporate all transportation modes into contemporary land development site design. [Link to handbook.](#) ▶

- **Chester County: Enhancing the Transit Environment**

This document illustrates how recommendations from the Multi-Modal Handbook and SEPTA's Bus Stop Design Guidelines can be applied in key locations in Chester County. [Link to publication.](#) ▶

- **Chester County: Public Transportation Plan**

This plan highlights recommended improvements to Chester County's public transportation system in three separate areas over the next 25 years (System, Environment and Experience). [Link to plan.](#) ▶

Programs

- **PA Redevelopment Assistance Capital Program (RACP)**

This state program provides communities grants for acquisition and construction of regional economic, cultural, civic, recreational, and historic improvement projects. For additional information visit [PA Office of the Budget website.](#) ▶

- **PennDOT: Transportation Alternatives Program (TAP)**

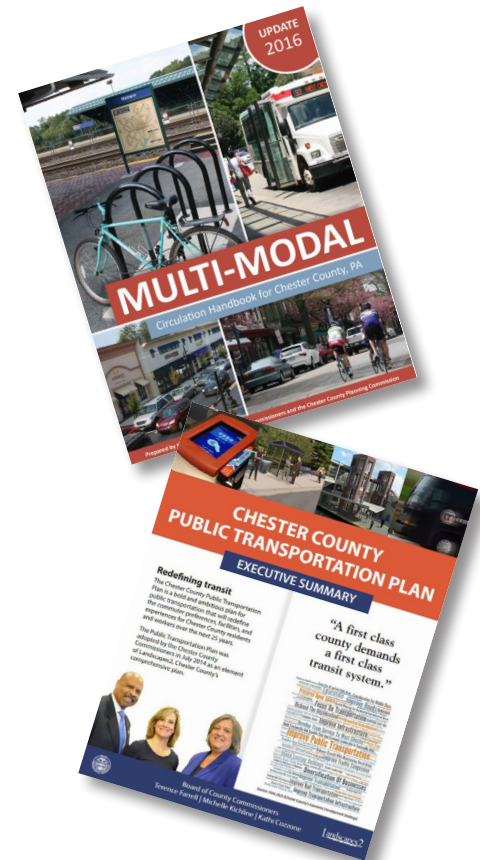
This state program provides funding for programs and projects that include both on and off-road pedestrian and bicycle facilities, infrastructure improvements and enhancing access to public transportation among others. For additional information visit [PennDOT's website.](#) ▶

- **Multi-modal Transportation Fund**

This program is offered by two separate entities (shown below) and provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to all communities. For more information about the program contact [Chester County Planning Commission](#) or visit the following websites: [PADCED](#) and [PennDOT.](#) ▶

- **Chester County Department of Community Development: Community Revitalization Program (CRP)**

This county program provides funding to support capital improvement projects in all 16 urban centers located in Chester County to support development and redevelopment. For additional information please contact the Chester County Department of Community Development or visit the [Community Development webpage.](#) ▶



Conclusion

Transit Oriented Development should be considered as a viable development option throughout Chester County's urban and suburban centers. The principles of TOD promote and encourage walkability, transit use, a mixture of uses, economic development, while creating a sense of place and improving the overall quality of life in these areas. The recommendations in this document include creative strategies, ordinance changes, design options and other ideas that can help give local communities, developers and stakeholders a starting point as to how they might want to plan and prepare for the development of sites around transit centers. Transit oriented development perspectives highlighted in this document will allow for these centers to become and/or remain strong and viable destinations into the future.



Berwyn Train Station in Easttown Township is an example in Chester County that has the supporting infrastructure and land uses to become a successful TOD.

