Unlocking the potential for inclusive transit-oriented development in Anne Arundel County

Station vision and economic impact

December 2020

EY

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Photo from Maryland Transit Administration

CONTENTS

Unlocking the potential for inclusive transit-oriented development in Anne Arundel County | Station vision and economic impact
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Executive summary

Transit-oriented development (TOD) integrates public transportation options and relatively dense mixed-use development. This report examines TOD potential near rail stations in Anne Arundel County, Maryland (Anne Arundel or County) and identifies barriers to development. It also includes potential solutions and case study examples of TOD success achieved by other communities. Lastly, to further illustrate the potential benefits of additional TOD, this report presents hypothetical new developments and the potential economic impacts by highlighting three specific station areas in the County (Odenton, Cromwell-Glen Burnie and Laurel Racetrack) that currently have strong potential for TOD, and provides options for policy- and market-based efforts to encourage inclusive mixed-use development at those stations.

Today, deficiency of funding, absence of an integrated and coordinated vision and a lack of an easily accessible and reliable transit system within the County present significant barriers to successful TOD implementation. The study presents potential actions to overcome these barriers and increase TOD in Anne Arundel. The findings are supported by over 30 interviews with local stakeholders; a qualitative evaluation of existing County strategies and applicable regulations, statutes and zoning codes; and a quantitative data analysis to assess near-term readiness for TOD and market potential.

To increase funding, where possible the government stakeholders could consider two steps: bundling tax credits that encourage both development and job creation, and streamlining the permitting, fee waiver and approval processes. In addition, existing state and local incentive programs, such as the More Jobs for Marylanders (MJM) tax credit and tax increment financing (TIF), could be expanded to TOD-designated areas. This could provide broader applicability and flexible use of these programs.

TOD could also be enhanced further by layering federal-level incentives where possible and seeking public-private partnerships (PPP).[1]

To establish a stronger, integrated and coordinated vision, the County could work collaboratively with the state, local municipalities and private stakeholders to ensure a mutual benefit to all parties. This strategic integration would benefit landowners, businesses and the community, promoting a shared vision that would support the shared success of TOD.

The commuter rail, light rail and bus stations that connect the County's communities may need to be improved to promote reliable, accessible and safe transportation. The infrastructure surrounding most stations is often not effectively designed to support modern TOD expectations and developments, often lacking street grids, pedestrian walkways and adequate parking structures. Without these upgrades, TOD lacks transit orientation and differs little from the non-transit-oriented mixed-used development that struggles to connect people with the jobs and social activity that can encourage relocation into the County.

Typology and readiness assessment findings

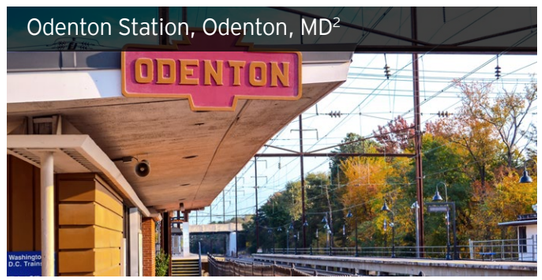
- Low to medium commercial and residential density – with a focus on more walkable, human-scale development – is best suited for the nine stations.
- Odenton, Cromwell-Glen Burnie and Laurel Racetrack rail stations present the most promising near-term opportunities based on the analysis of TOD readiness.
- The potential for TOD surrounding the County's rail stations could grow if transit service/frequency on the MARC Penn Line, MARC Camden Line and Light RailLink was increased during peak hours (e.g., 15 minutes or less).

Barriers to TOD in Anne Arundel County

- Limited financing and funding for TOD
- Permitting delays and development uncertainty
- Lack of united stakeholder vision for TOD
- Limited light rail connectivity to points of interest
- Limited light rail and Camden Line frequency
- Community concerns regarding added density

State and County policy considerations

- Establish a state TOD designation at Cromwell-Glen Burnie and Laurel Racetrack that incorporates incentive benefits
- Retain state TOD designation for Odenton
- Expand the More Jobs for Marylanders (MJM) tax credit program to apply to all industries creating jobs in TOD-designated areas
- Make value-capture programs such as TIFs more politically feasible by emphasizing the public benefits and structuring the funding vehicle to benefit residents to the greatest extent
- Streamline by-right development and make the permitting/approval/fee waiver processes more predictable
- Seek public-private partnerships (PPPs) wherever practical to facilitate new revenue streams and leverage private capital



Odenton Station, Odenton, MD[2]

Odenton

The connected community

The hypothetical development could shift Odenton into a denser residential community with a more defined commercial presence and sense of place.

I Leverage creative financing for parking infrastructure

Constructing a new parking structure to make space for development at the existing surface lots is key to unlocking Odenton's TOD potential. Creative strategies for managing parking demand should be considered in conjunction with streamlining available incentives, such as fee waivers. Stacking local, state and federal funding and financing could further support construction of a new garage.

II Improve connectivity to Fort Meade to transition Odenton into a two-way commuter hub

Adding multiuse trails or conducting a wayfinding study could improve the station area's connectivity to Fort Meade, Maryland's largest employer. If the state were to pair the TOD designation of the Maryland Department of Transportation (MDOT) with an expanded use of the MJM job creation tax credit, it could also help attract commercial tenants that would complement Fort Meade.

III Create a pedestrian-oriented environment with more amenities

Incorporating leading practices for suburban retrofitting, adding public amenities, such as a parks/event areas, and leveraging local historical assets could create a dynamic living and working environment.

Hypothetical new TOD

Residential	**1,250–1,500** new units
Office	**580k–710k** new square feet
Retail	**210k–250k** new square feet
Hotel	**70–90** new keys

Potential economic impacts

2,300
Permanent direct jobs

$7m
Total annual County taxes

134k
New MARC trips annually

Cromwell-Glen Burnie

County living, global access

The hypothetical development could shift Cromwell-Glen Burnie into a more mixed-use local activity center.

I Create a more integrated light rail network

Although Cromwell-Glen Burnie has the highest ridership of all of Anne Arundel's light rail stations, its TOD potential is limited by the low usage of the County's transportation systems. Increasing frequency of light rail service or adding new transit routes to connect Cromwell-Glen Burnie to Glen Burnie Town Center, BWI Airport and Annapolis could catalyze TOD at nearby stations.

II Expand existing benefit zones and access to credit to fund inclusive development

Leveraging available credits and expanding credit zones could not only help fund these improvements, but also support new development without displacing residents or small businesses. Zones that grant access to the County's Commercial Revitalization Tax Credit could be expanded to encompass more of the station area. The County could also seek PPPs to facilitate private capital, encouraging commercial institutions to contribute to capital campaigns or participate in tax equity structures related to federal programs such as the New Market Tax Credit (NMTC) and Opportunity Zone (OZ) programs.

III Align TOD with local interests

Stakeholders could look to foster local support by creating a small-area plan that could generate stakeholder buy-in, engaging the community through workshops and adding amenities such as a plaza, farmer's market or floodplain infrastructure. Improving the bicycle and pedestrian environment could also reduce congestion and activate the area's TOD potential.

Hypothetical new TOD

Residential	**975–1,200** new units
Office	**220k–270k** new square feet
Retail	**260k–310k** new square feet
Hotel	**250–325** new keys

Potential economic impacts

1,200
Permanent direct jobs

$3m
Total annual County taxes

19%
Increase in weekday ridership

Cromwell-Glen Burnie Station, Glen Burnie, MD[3]

Laurel Racetrack

Connecting counties: rail, racing and residents

The hypothetical new development could shift Laurel Racetrack into a more mixed-use residential community and entertainment-based transit hub.

I Expand existing benefits and leverage a multi-jurisdictional partnership to fund infrastructure

Significant infrastructure improvements may be necessary to unlock Laurel Racetrack's TOD potential. These could include pedestrian safety improvements or building-out the existing station to include platforms and passenger canopies. To help fund this, the state could expand the MJM program to non-manufacturers located within TODs and add a TOD designation at Laurel Racetrack to grant stakeholders access to Sustainable Communities benefits, which include an expanded scope for the local use of TIF. The County could seek to foster a multi-jurisdictional partnership with Howard County, Prince George's County, the state and the federal government to maximize implementation.

II Incorporate community benefits into TOD to increase public support

It may be necessary for a developer to incorporate community-serving benefits in TOD plans to foster public support, given the level of government funding needed for infrastructure. This could include integrating affordable housing in new developments or incorporating public amenities such as parks and multiuse paths.

III Optimize cross-county connectivity

A strategy could include upgrading vehicle tunnels to connect Howard and Anne Arundel counties and adding a pedestrian-friendly bridge over the Patuxent River to connect the Laurel Racetrack and Laurel stations. However, a wayfinding study may be necessary to determine the optimal way to connect the three proximate counties. Increasing the frequency of service at Laurel Racetrack – currently just a flag stop – could also be key.

Hypothetical new TOD

Residential	**1,450–1,800** new units
Office	**380k–460k** new square feet
Retail	**160k–200k** new square feet

Potential economic impacts

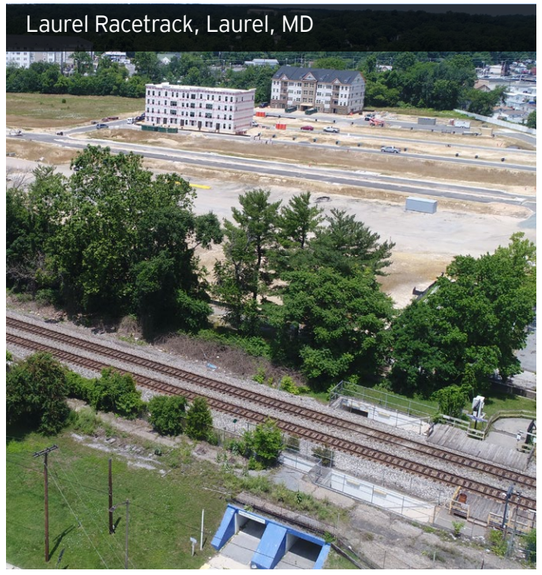
1,800
Permanent direct jobs

$180m
Total annual labor income

$95k
New annual fare revenue

The hypothetical new TOD and potential economic impacts are reflective of all new development within the 0.5-mile station radius, which includes both Anne Arundel and Howard counties.

Laurel Racetrack, Laurel, MD



A closer look at TOD

The term “transit-oriented development” commonly describes a development strategy based on an existing or planned transit station with high-quality service, as well as a walkable, vibrant, relatively dense and mixed-use environment that is oriented around a transit station. TOD has been an important part of Maryland’s strategy to address traffic congestion, environmental issues and urban sprawl.

TOD is based upon the guiding principles of mixed uses, equity, connectivity and amenity:

- **Mixed uses** entails integrating a balance of residential, commercial, social and public uses into one space to create a well-rounded lifestyle for its community members. A strong mix of uses helps the community remain lively and walkable, combining work and social activities. This can lead to increased demand for commercial and residential real estate from new residents and employers.
- **Equity** in the forms of affordable housing, preservation of small businesses and inclusive access to open space can elevate a development’s long-term impact and alleviate social and economic burdens. The higher density and profit margin associated with TOD sites can better support affordable housing relative to areas that are less well connected. Transit access can also offset the larger relative cost of automobile ownership for lower-income residents.
- **Connectivity and amenities** are essential to a station’s success. A high level of connectivity and robust amenities (parks, trails, plazas, etc.) create more vibrant station areas, providing a strong quality of life within the community and greater access to the broader metro area.

In 2008, the Maryland legislature adopted a definition of TOD as “a dense, mixed-use deliberately-planned development within a half-mile of transit stations that is designed to increase transit ridership.”[4]

Background: TOD in Anne Arundel

Anne Arundel County is a suburban county located between Washington, D.C., and Baltimore, MD. The County has a $35 billion economy, has lower tax rates relative to nearby counties and is home to excellent educational institutions that supply the job market with talent in many industries.[5] Anne Arundel has been committed to a strategic plan to increase safe, reliable travel options and the development of its local economy.

While successful in some locations, the County has fallen behind other counties in the Capital Region of Baltimore, Washington and Richmond that have developed an approach to co-integrate the future of their economies and transportation systems around TOD, delivering a sense of community around transit.

The County has three MARC train stops, a system of light rail stations, various major highways and local and international airports, among other transportation assets. Of the nine stations included in this analysis, three stations – Odenton, Cromwell-Glen Burnie and Laurel Racetrack – present some of the highest near term potential for successful TOD implementation in Anne Arundel and were selected for further analysis. This analysis is not intended to imply that other stations within the County are not also strong potential candidates for TOD.

Light rail[6]
Nursery Road
North Linthicum
Linthicum
BWI Business District
Ferndale
Cromwell-Glen Burnie
MARC
Odenton
Laurel Racetrack
BWI

Note: BWI Airport is a light rail station in Anne Arundel County that was not included in the scope of this analysis.

Source: Maryland Transit Administration

TOD can take many forms

Every station area faces unique challenges that require tailored solutions to unlock their TOD potential. From employment centers that serve as the core of a local economy to more residential neighborhoods where transportation exists to connect residents to their workplaces, schools and other essential destinations, different stations exemplify a variety of distinctive character traits, roles and functions within a larger transit context.

TOD typologies are generalized station descriptions used to categorize stations based on their shared similarities in order to target strategic planning efforts in line with the most relevant research. TOD typology frameworks have been used in many cities – including Austin, Chicago, Denver, Pittsburgh and their suburbs – to develop visioning plans, set guidelines for unlocking development potential and understand each station's role within the greater transit network.[7]

Typologies:

- Categorize station areas into distinct groups based on similar characteristics
- Serve as a launching point for station-area planning activity and policy decisions related to design standards, public amenities, public financing and infrastructure improvements
- Set expectations for a station's development potential – including relevant density, physical building characteristics and potential commercial tenants – to understand how to best prioritize applying financial resources
- Help communicate station vision to key stakeholders such as elected officials, city planners, community groups and potential developers

Typologies group stations according to their common characteristics and make it possible to develop a generalized vision for a station's future potential.

Primary typology components:

- **Use mix:** projected by leveraging existing commercial and residential inventory shares, zoning and real estate market fundamentals
- **Density**: predicted by current factors including population density, population growth, intersection density, employment density and recent development density
- **Station function**: interpreted by analyzing the present number of origin workers, number of nearby jobs and commuting patterns to identify a station's potential role

Secondary typology components:

- Connectivity within the larger transit network; area and economic centricity; public areas/open space composition; street and block patterns; building placement; building height; commercial tenant composition; local transportation alternatives; pedestrian/bicycle environment; automobile parking options; and daily population flow dynamics

Commuter rail vs. light rail TOD

TOD can take many forms and be applicable to all types of transit stations, including bus stations and commuter and light rail stations.

Commuter rail:

Connects large cities with their suburban neighborhoods and is serviced by larger and higher-capacity trains. Train schedules operate according to demand, which is typically highest during morning and evening commutes. While commuter rail stations typically have a lower variety of routes and frequency of service (as they are often in more suburban areas), specific nodes can serve as regional transportation hubs or economic centers and realize higher development potentials. Focused on the availability of land, TOD at commuter rail stations generally requires larger land areas to address parking needs.

Light rail:

Operates at lower capacity and lower speeds but typically has higher frequency than commuter rail. Light rail usually has a presence in downtown/urban core areas where it can function as a connection between centers of activity. However, suburban light rail stations can realize their TOD potential in suburban centers, which are often home to local economic and community activity.

Source: Maryland Transit Administration

Station typologies

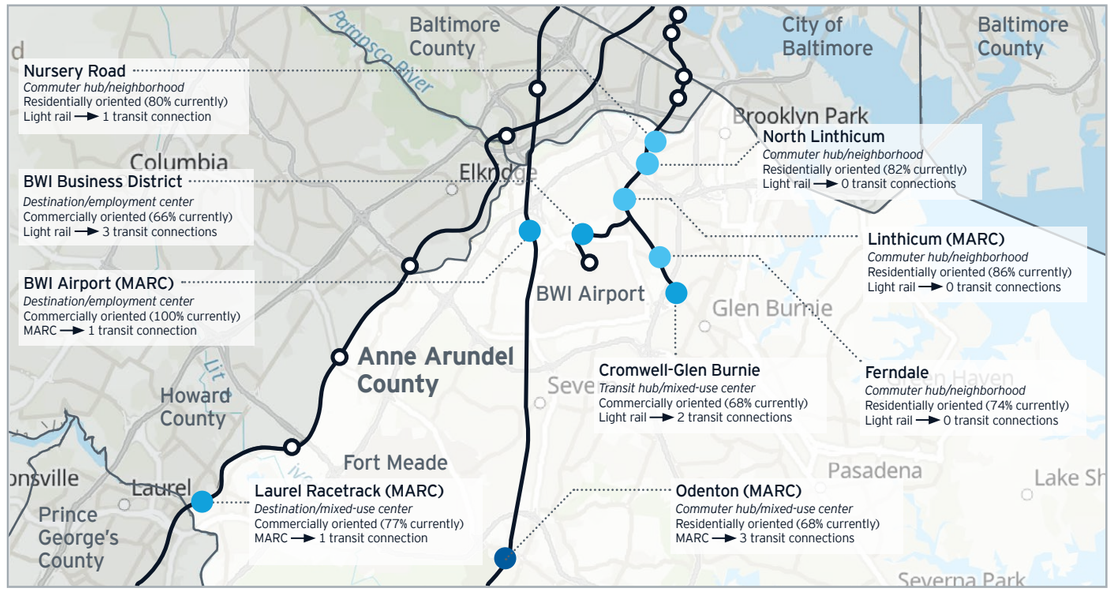
Higher density
Higher transit connectivity
Higher transit orientation

Typology	Typology description	Development composition	Transit connectivity	Transportation orientation	Public amenities	Local examples
Downtowns/ urban cores	High-density, mixed-use transit centers that function as the heart of economic activity within an area	Mid- to high-rise apartments, condominiums, civic buildings, offices and mixed-use developments	High levels of connectivity to the greater transportation network; high levels of transit frequency	Strong pedestrian- and bicycle-oriented environment with smaller and more rectangular block patterns	High level of public amenities often in the form of a plaza oriented around the station; can include parks frther from the station	Metro Center, Gallery Place
Community hubs	Medium- to high-density residential communities that are well connected to regional centers	Wide variety of low- to mid-rise residential types such as apartments, condominiums and row houses with supporting ground-floor retail and ancillary office space	Medium levels of connectivity to the greater transportation network; medium levels of transit frequency	Strong pedestrian- and bicycle-oriented environment with smaller and more rectangular block patterns	Dispersed community-oriented public amenities including parks, trails and community centers	Dunn Loring-Merrifield, Columbia Heights
Suburban centers	Low- to medium-density local-serving centers that function as a cluster of economic activity within the larger suburban area	Mix of low- to mid-rise multi-family residential and commercial development oriented around the station, with single-family detached, row houses or small-scale multi-family residential farther from the station	Medium levels of connectivity to the greater transportation network; medium levels of transit frequency	More automobile-oriented environment, with some pedestrian and bicycle amenities closer to the station; medium and more irregular block patterns	Medium level of public amenities often in the form of a plaza oriented around the station; can include parks farther from the station	Twinbrook, Hunt Valley
Suburban neighborhoods	Low- to medium-density residential neighborhoods, with station areas serving to primarily connect residents to their workplace destinations	Predominantly single-family detached residential with town houses or small-scale multi-family and supporting retail/ office space along arterials	Low levels of connectivity to the greater transportation network; low to medium levels of transit frequency	More automobile-oriented environment, with larger and more irregular block patterns	Small-scale parks or trails scattered throughout residential areas	East Falls Church, Gaithersburg

Lower density
Lower transit connectivity
Lower transit orientation

Source: Maryland Transit Administration

Map of stations with typologies



Typology Legend:

- Suburban neighborhood
- Suburban center
- Community hub

TOD in Anne Arundel County – barriers and equity

State, County and station barriers to TOD and potential solutions

To identify the key barriers to TOD at a state, County and station level, the EY team interviewed over 30 stakeholders from a variety of employers, developers, community groups and government agencies. The EY team also leveraged historical station studies and reports in conjunction with the team's industry knowledge to inform this analysis.

The EY team was also able to determine potential solutions for the most commonly identified barriers, leveraging a combination of insights from success stories, relevant case study literature, interviews with local stakeholders and EY industry knowledge.

State-level barriers to TOD and potential solutions

Financing and funding for TOD

Potential solutions

- Increase government commitment to TOD designations
- Establish a state TOD designation around Cromwell-Glen Burnie and Laurel Racetrack (MARC) in conjunction with expanding the More Jobs for Marylanders Act to include benefits for all industries creating jobs
- Establish TIFs for land assembly and infrastructure
- Set up a grant program to help fund TOD feasibility studies and implementing targeted actions

Technical assistance capacity

Potential solutions

- Assign staff to lead the implementation of a state TOD development strategy
- Improve and promote online resources and tools
- Educate stakeholders on state TOD design standards and incorporate them into state TOD programs

TOD designation impact

Potential solutions

- Increase TOD incentives for private developers and employers
- Make select benefits more automatic if specified TOD criteria are met
- Expand the section of the More Jobs for Marylanders Act to include benefits for all industries creating jobs within a TOD-designated area and partially count part-time jobs

Lack of a cohesive public/private sector vision

Potential solutions

- Inventory all state-owned land within 1 mile of transit stations
- Develop a proactive strategy with goals, metrics and timelines for joint development on state-owned property near transit stations
- Create a multi-agency committee with representatives from different levels of government, relevant transit agencies and other key stakeholders to oversee implementation of strategy
- Prioritize inclusive TOD as a core state initiative and work with transit agency stakeholders to increase frequency at underutilized stations

Parking strategy

Potential solutions

- Complete a strategy for MARC parking, including fees and/or incentives to direct drivers from over capacity Penn line stations to under capacity Camden line stations

County-level barriers to TOD and potential solutions

Financing and funding for TOD

Potential solutions

- Establish joint ventures with a primary developer
- Streamline impact fee waivers for targeted developments
- Link specified TOD criteria to automatic incentives
- Create a plan to deploy value-capture mechanisms such as TIF districts around stations to encourage land assembly and help fund infrastructure improvements

Lack of county-level vision for TOD

Potential solutions

- Develop joint development plans for County land near transit stations
- Conduct outreach to explain changes in the General Development Plan update to landowners and developers
- Fund small-area plans for higher-TOD potential districts

Limited light rail demand and frequency

Potential solutions

- Advocate to the state to increase the frequency and reliability of the light rail and bus systems by emphasizing the prioritization of transit
- Create multimodal transit hubs that facilitate transfers and integrate the transit system into the pedestrian and bicycle environment
- Add transit connections and improve last-mile connectivity to key demand drivers
- Plan pop-up markets and events around light rail stations to stimulate foot traffic

Staff capacity to implement plans

Potential solutions

- Dedicate a County point of contact for each station area, supported by interagency team

Permitting delays/process perception

Potential solutions

- Expedite permitting for TOD areas and developments that include affordable housing
- Establish preapproved building types (e.g., courtyard apartments, accessory dwelling units) to reduce design time, expedite reviews, reduce approvals times and minimize guesswork for developers
- Streamline incentives and by-right development
- Guarantee up-front incentives for developers, with policies that clearly define necessary thresholds to receive certain benefits
- Expedite the permitting and approvals process for developers that bring employers from sectors with "targeted industry" designations
- Market improvements to the permitting process to alter developer perception

Permissiveness of non-TOD development

Potential solutions

- Perform an annual review of approved permits against TOD and targeted-growth-area goals
- Set clear design standards and expectations for TOD sites leveraging typologies

Community skepticism of transit benefits

Potential solutions

- Host County-led community presentations and workshops around the benefits of TOD
- Encourage developers to interact with the local community

Controversial political implications of TIFs

Potential solutions

- Designate sections of station areas intended for commercial development as TIF districts requiring developers confirm "but for" the incentive when private entities benefit directly
- Market the importance and benefits of TIFs as a financing tool for public infrastructure
- Highlight success stories of TIFs used to create developments with community-serving benefits

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General station-level barriers to TOD and potential solutions

Equity, affordability and displacement concerns

Potential solutions

1. Create goals and track progress

- Assess the inventory of existing affordable housing, including expiration dates for subsidized properties
- Set tangible affordable housing goals (by county or by station area) and benchmark progress

2. Engage local stakeholders

- Host regular forums to connect mission-driven development project sponsors/ landowners to mission-driven developers
- Form PPPs with larger, locally involved businesses to invest into capital campaigns for public benefits
- Set up workshops that connect developers with the community
- Strengthen tenant protections for existing residents and connect tenants at risk of eviction with pro bono legal services

3. Set planning guidelines

- Fund feasibility studies for the adaptive reuse of vacant commercial buildings for community-serving uses such as libraries or museums
- Encourage the construction of accessory dwelling units within existing subdivisions, which can provide affordable housing
- Incentivize the development of a variety of housing types that support a diverse tenant base (e.g., mixed-income housing, townhomes and apartments)

4. Offer financial incentives

- Introduce market-sensitive inclusionary zoning laws, including impact fee waivers, public safety surcharge waivers and/or density bonuses for production of affordable units
- Provide grants or technical support to mission-driven entities to conduct feasibility studies for TOD projects that support County goals
- Consider providing property tax abatements to low-income homeowners in TOD areas

5. Support local employment

- Offer micro grants to small businesses for facade improvements to increase competitiveness amid new construction and improve the pedestrian environment
- Tie more direct incentives to pre- and post-construction local hiring policies and encourage developers to include space for small-business tenants
- Advocate for the equitable distribution of grants and educational programs that support capacity-building for local artists, entrepreneurs and small businesses (e.g., mentorship programs, internships, technical assistance)

Community pushback against higher-density development

Potential solutions

1. Engage the local community

- Host County-led workshops and presentations to communicate the benefits of TOD
- Market public benefits and added amenities to key community stakeholders
- Consider strategies for adaptive reuse of existing sites and incorporate cultural assets
- Create small-area plans that generate community buy-in

2. Prioritize strategies to reduce congestion when cost-effective

- Increase frequency of transit at prioritized TOD sites
- Improve safety infrastructure and pedestrian/bicycle environment to increase access to transit
- Deploy best practices to manage and mitigate transportation impacts

3. Incorporate amenities and public benefits into TOD packages

- Consider policies to encourage wetland adaption for public-serving amenities (e.g., parks, trails, open space, farmer's markets)
- Consider offering property tax abatements to attract community-desired retail

Connectivity and access

Potential solutions

1. Develop strategic assessments

- Create a last-mile needs assessment and implementation plan
- Fund a strategy for last-mile improvements
- Implement complete street and traffic calming standards for roadways that serve TOD areas
- Conduct wayfinding studies for Odenton, Cromwell-Glen Burnie and Laurel Racetrack and implement recommendations

2. Plan for the future

- Revise zoning code and public works standards for redevelopment to make it easier to build more compact, mixed-use and transit-oriented places
- Leverage leading practices for suburban retrofitting in community redesign standards (e.g., walkable block sizes, a more continuous streetscape with ground-floor retail and wide sidewalks to allow for increased bicycle and pedestrian mobility and for outdoor dining)
- Implement strategies that support future development when desired results cannot be achieved in the short term (e.g., designing in easements for future linkages or outfitting parking lots as future construction sites, placing utilities in the future streets at the outset)

Equity toolkit — promoting equity in Anne Arundel County

While evaluating TOD readiness and determining optimal developments to enhance Anne Arundel stations, this study also addressed the importance of promoting equity in the County.

Demographic comparison[8]

Whether it is a lack of affordable housing or the displacement of longtime residents, each station faces unique challenges in balancing the preservation of the local community with significant commercial development. This study analyzed several demographic factors to better understand those challenges and the current well-being of each station's local community. These same factors were considered when building the hypothetical developments. The table below illustrates the percentage difference of the station area to the County and state averages for select demographic data points. For example, Odenton has a minority presence that is 28% higher than the County average.

	Minority presence		Median household income		Rent-burdened population		Poverty status		Unemployment rate	
	County	State	County	State	County	State	County	State	County	State
Odenton (MARC) Anne Arundel County	28%	-14%	-10%	7%	93%	39%	-65%	-78%	-13%	-29%
Cromwell-Glen Burnie Anne Arundel County	-21%	-47%	-30%	-17%	-21%	-43%	-30%	-56%	-13%	-29%
Laurel Racetrack (MARC) Anne Arundel County	111%	42%	-37%	-25%	173%	96%	5%	-34%	117%	79%

Encouraging equity through state and local incentives

Maryland offers several incentive programs focused on promoting equity. To encourage the improvement and expansion of affordable housing, Maryland has utilized the federal Low-Income Housing Tax Credit (LIHTC) program. The program, which subsidizes the acquisition, construction and rehabilitation of affordable rental units, provides tax credits to the state.[9] The state then awards the credits through a competitive application to developers, who usually exchange them for up-front capital. Once the developers finish the project, the holder of the credit can claim the various credits over a 10-year period. Developers of the low-income housing projects must agree to meet certain tests regarding the income levels of the tenants. Maryland allots points as part of the tax credit evaluation and selection process when awarding federal LIHTCs.[10] For the 2020 allocation round, TOD projects may receive up to eight additional points if certain criteria are met.[11]

Maryland offers the Partnership Rental Housing Program to complement the LIHTCs. This program allows local governments, housing authorities and entities to apply for loans for rental housing units that will be filled with tenants who earn at or below 50% of the statewide median income.[12] The program is designed to be integrated with private or public funds as well as programs such as the LIHTCs.

In addition to incentives-based on housing, the state and local communities offer programs that benefit the creation of minority-owned businesses and the revitalization of distressed communities. For instance, Anne Arundel County offers the VOLT fund, which provides loans that can be put toward real estate acquisition or expansion, leasehold improvement equipment and working capital. Loans are offered at or below current market interest rates.[13]

While the state and its local municipalities have made some progress toward equity goals, policy and regulatory footholds still need to be improved. In 2017, Maryland was sued for violating Title VIII of the Civil Rights Act of 1968 for requiring not only the approval of the community, but also a designated local financial contribution before developing low-income housing units.[14] While the case was settled and the provisions were removed, the process of implementing affordable housing development remains tedious, especially in a state where a shortage exists of homes for low-income renters.[15]

To address these realities, it is important to extend tax credits that support the production of low-income housing. In addition, the focus can be shifted to retaining current low-income renters. This can be accomplished with incentives for landlords who provide quality affordable housing. Programs focused on reliable transportation, quality schools and public assistance can also bring value to low-income communities, as well as to the developer, who can partner with public entities to revitalize distressed areas.

Anne Arundel County VOLT fund

$25,000–$500,000

Offered per loan for minority-, woman- and veteran-owned small businesses.[16]

Unlocking the potential for inclusive transit-oriented development in Anne Arundel County | Station vision and economic impact
Reliance restricted; prepared solely for the Greater Washington Partnership. Does not constitute assurance or legal advice. Please refer to limitations and restrictions on page I.

Affordable housing program case studies

Anne Arundel County's current affordable housing programs have been marginally effective in producing results, according to developers and public stakeholders. Affordable housing programs in nearby Montgomery County and Fairfax County have been consistently highlighted across various reports as two effective models for encouraging the development of affordable housing.[17] [18]

In addition to being geographically proximate, both Montgomery and Fairfax counties share comparable socioeconomic makeups to Anne Arundel County. Montgomery County is also served by MARC commuter rail and has a similar median household income to Anne Arundel County (~10% difference).[19] While Fairfax County has a higher median household income than Anne Arundel County, it still has a similar poverty rate (<0.1% difference).[20] Given the proven track records and similarities, Anne Arundel County could consider adopting similar policies or inclusionary zoning standards.

Inclusionary housing programs

of local inclusionary housing programs across the country are mandatory[22]

Montgomery County[21]

Highly effective in creating affordable housing through mandatory set-asides, but can limit potential development due to more stringent requirements

Context

- Maryland code broadly authorizes density bonuses to create affordable housing units
- Moderately Priced Dwelling Unit (MDPU) program

Highlights

- Mandatory set-asides – for all developments more than 20 units, 12.5% must be MDPUs
- 22% density bonus for 15% MDPUs
- Affordability terms – 99 years for rental MDPUs, 30 years for for-sale MDPUs
- Maximum income limits vary, but are typically 60% to 70% of median household income
- Alternative: developers can transfer MDPUs to an alternative site in the same planning policy area

Results

- More than 13,000 affordable housing units produced from 1974-2011, more than any other program in the US (~358/year)

Fairfax County[23]

Still effective in creating affordable housing (less so than Montgomery County's program), but also more encouraging of new development with a less stringent sliding scale of requirements

Context

- First inclusionary zoning program in the US
- Affordable Dwelling Unit (ADU) program

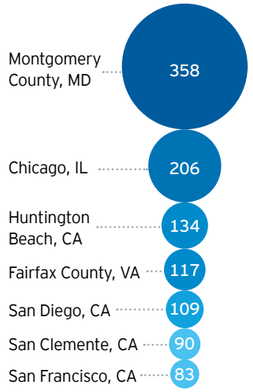
Highlights

- Sliding scale of requirements for most property types
- Single-family: 20% density bonus for 12.5% ADUs
- Multi-family (under four floors): 10% density bonus for 6.25% ADUs, 20% for 12.5% ADUs
- One-third of rental ADUs reserved for households with incomes below 50% AMI, two-thirds for incomes below 70% AMI
- Established an ADU Task Force
- Alternative: developers can provide a portion of the required ADUs with a buy-out option for others

Results

- From 1992 to 2011, 1,112 renter-occupied and 1,336 owner-occupied units developed (~117/year)

Average number of inclusionary units produced per year*



*Given limited tracking and publication of affordable housing data and different years of program conceptions, results reflect comparisons across varied ranges of years.[25]

KEY TAKEAWAYS

Conducting an economic feasibility analysis to clarify the program requirements that would work best for each local market is key to designing a more successful inclusionary housing program for Anne Arundel County. This may entail balancing affordability requirements that will lead to affordable units being built without stifling overall housing development. Inclusionary housing programs in stronger housing markets that have predictable rules, well-designed cost offsets and flexible compliance alternatives are often the most effective.[24]

EQUITY AND COVID-19

Equitable TOD can alleviate the long-term impacts of COVID-19.

The EY team recognizes that the COVID-19 pandemic has had a dramatic impact on the use of Metro, MARC and light rail transit in Maryland. Nevertheless, the observations, visioning and conclusions in this report are long term and anticipate an eventual return to normal use of these rail assets and a continued need for TOD.

COVID-19 has resulted in an unprecedented contraction in economic activity and employment. Small businesses, lower-income residents and racial minority groups have borne the brunt of these impacts, particularly in the mid-Atlantic region.[26] [27] Affordable housing is a key concern now more than ever, as new construction has stagnated and a greater share of low-income homeowners and renters work in industries more vulnerable to the pandemic. Although the tenants living in LIHTC-financed housing and naturally occurring affordable housing pay relatively lower rents, these rates were based on their pre-COVID-19 incomes. As many of these residents have service or hourly jobs that can't be performed remotely, the loss of income for these tenants is especially impactful.[28] [29]

Equitable TOD can create opportunities for mixed-income, mixed-use communities that better support affordable housing and alleviate longer-term COVID-19 impacts. Long commutes affect quality of life, reduce productivity and contribute to employee turnover, especially among low- and moderate-income wage workers.[30] Transit provides a more affordable means of access to jobs for low- to middle-income households and to essential businesses (e.g., grocery stores, hospitals, institutions), which can catalyze regional growth.

Of Maryland's extremely low-income rental households

Real estate and COVID-19

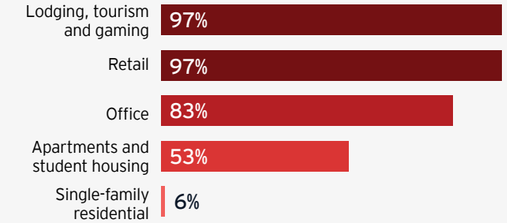
To determine how property values will be impacted as a result of COVID-19, the EY team conducted a survey of over 200 professionals active in the US real estate markets. Survey respondents generally viewed commercial properties such as hotels and retail to be more at risk of medium- to long-run effects vs. multi- and single-family residential properties.[39]

Respondents also indicated that development and population trends may shift toward the suburbs, presenting an opportunity for Anne Arundel County.[40] This could lead to new construction jobs, an increase in satellite office employment and greater financial support for affordable housing through increased tax revenues, especially in mixed-use areas with better transit access.

Real estate strategies in this report therefore relied heavily on encouraging planning activities, infrastructure construction or residential development in the near term, in line with these suggested market conditions.

Perceived impact of COVID-19 on US property values[32]

Percentage of respondents who believe US property values will decrease as a result of COVID-19



EY US research on COVID-19's impacts on real estate[33]

Office	"The long-term effects are a possible decrease in the demand for office space, particularly large concentrations in urban cores … investment emphasis may shift to remote technology and flexible satellite locations in the suburbs that are more easily accessible."[34]
Retail	"The dependence of most neighborhood and community strip centers on small businesses and restaurants is certainly a risk factor … the advantage they have by nature is a flexibility to quickly shift tenants and reinvent themselves to meet changing consumer demand."[35]
Hotel	"The timeline for recovery is seen as being heavily dependent upon market and segment/chain scale [economy will fare the best]."[36] [37]
Multi-family	"Remote working could become the new normal for many employees, leading to 'reverse urbanization' where tenants move to the suburbs for lower rent and more space … Class A/B+ assets are likely to outperform Class B-/C assets."[38]

Hypothetical TOD visioning model and economic impact analysis

A hypothetical TOD model was created to estimate the total new construction by asset class within an 0.5-mile radius of each station.[41] **These inventory outputs were determined under the assumption that the barriers inherent to each station will be overcome in the long term. Stakeholder action is a critical component to realize the hypothetical new TODs.** The model is not intended to serve as a specific site plan or development proposal, but instead as a vision for an optimal outcome of TOD based on area need and potential as assessed from stakeholder interviews, market conditions and quantitative data sources.

This analysis, applied to each of the three most ready stations, consisted of four sections:

I Current state

II Realizing TOD

III Three pillars of TOD

IV Potential economic, tax and ridership benefits

I Current state

This section consists of:

- Key details regarding the current transit infrastructure and in-place development
- An overview of historical plans, studies and TOD literature relevant to the station and recent/planned developments
- An analysis of the current level of barriers to TOD for the station based on stakeholder interviews, historical studies and complementary market analytics

II Realizing TOD

This section was based on information gathered from stakeholder interviews, historical studies, case studies and EY US industry knowledge and includes:

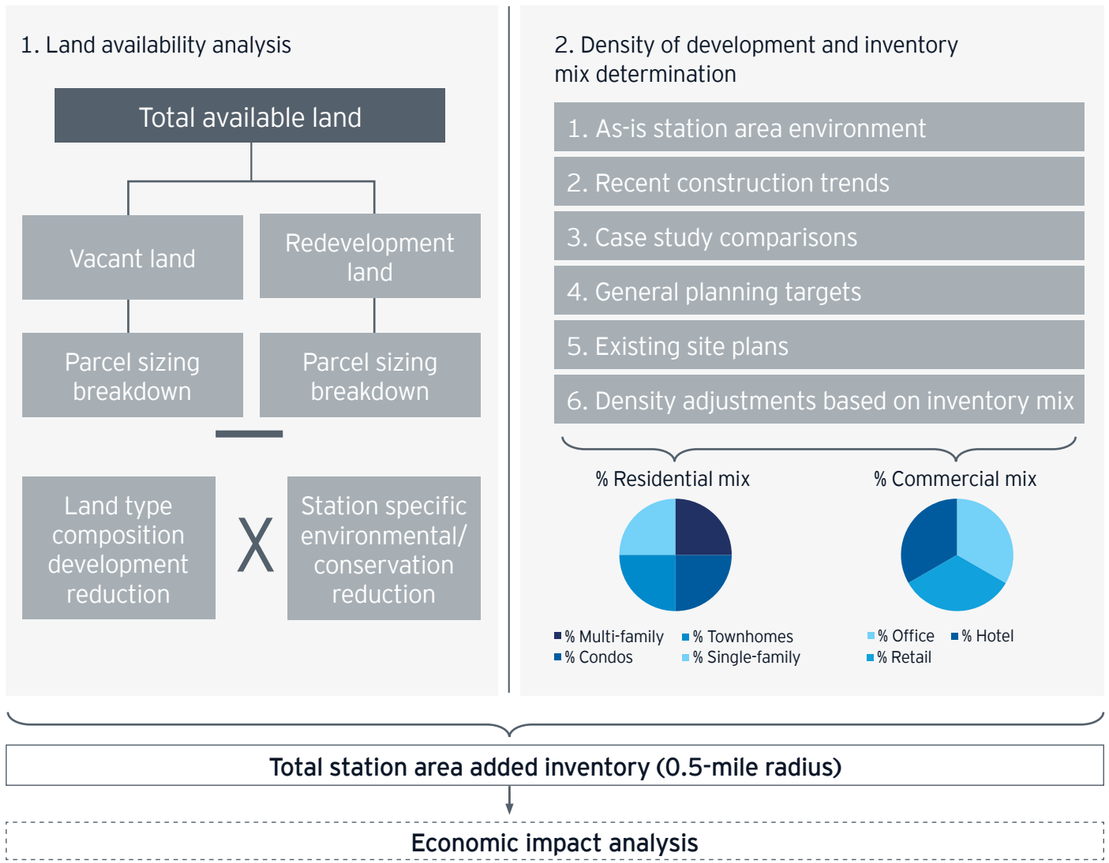
- An illustrative "site map" that links potential development sites and identified barriers to key locations
- An analysis of the key identified barriers and potential opportunities at each station, with supporting strategies, available benefits, policy suggestions and potential next steps for achieving the vision for each station
- Station-specific strategies for encouraging equity

III Three pillars of TOD

This section consists of a breakdown and description of the estimated square footage of inventory to be added in the hypothetical model by asset type, as well as real estate specific strategies and considerations to achieve these goals in the medium to long term through a multiphase development. These pillars consist of residential, commercial and amenity, the outputs of which were calculated by leveraging the following methodology:

- Calculating the total vacant and redevelopment-ready land using the Maryland's GIS data and adjusting parcels for sizing (e.g., larger vacant parcels were considered more likely to be more densely developed than smaller redevelopment parcels) and environmental conservation (e.g., wetlands, open space)[42] [43] [44]
- Determining a baseline density of development and inventory mix assuming identified barriers to TOD were surmounted based on sources as illustrated in the following graphic
- Adjusting to account for site access, location, topography, complementary uses, stakeholder insights, demand drivers, market conditions and real estate market fundamentals (e.g., rents, vacancy rates, sales prices)[45]
- Cross-referencing outputs against illustrative "site maps" to pair hypothetical developments to locations and adjusting for the impact of outputs at other stations

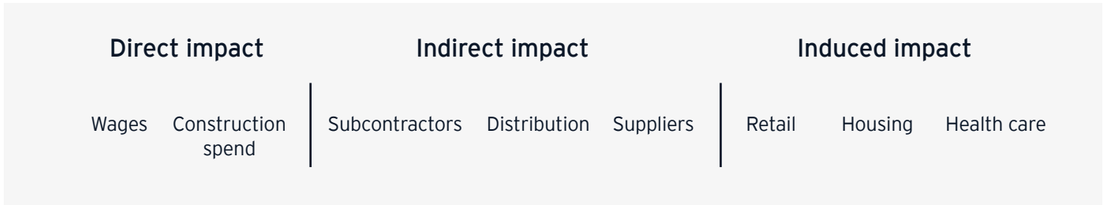
Hypothetical TOD model process flow:



IV Potential economic, tax and ridership benefits

Based on the anticipated inventory added at each station and the types of uses envisioned, the economic impact analysis quantifies the incremental direct, indirect and induced economic activity that could be supported by the construction of the facilities, the subsequent operations of tenants and consumption spending of residents across the County.

- **Direct** effects include jobs at construction contractors related to capital investments and ongoing employment at office, retail, hotel and other establishments included in the hypothetical development.
- **Indirect (supplier)** economic effects are the result of purchases from local suppliers and the subsequent rounds of supplier purchases in the economy.
- **Induced (employee spending)** economic contributions are related to employee household spending. Workers at the development use a portion of their incomes to purchase goods and services from local businesses. These transactions support employment at businesses such as retailers, restaurants and service companies.



The direct, indirect and induced impacts are expressed in terms of five indicators:

- **Economic output**: is the broadest measure of economic activity and includes GDP and intermediate input purchases.
- **Gross domestic product**: GDP, or value-added, is a component of economic output and includes labor income, payments to capital and indirect taxes.
- **Labor income**: is a component of GDP and includes total employee compensation and proprietor income. For direct labor income, the amount reflects wages and salaries, excluding benefits.
- **Employment**: the total number of full- and part-time jobs (headcount). Employment impacts related to capital investments are expressed as the total number of jobs lasting one year each (worker years) over the construction period. If construction takes place over five years, the number of jobs each year would be the total shown divided by five. Employment impacts related to operations are annual jobs that can expected to recur yearly if the development's operations sustain.
- **State and county taxes**: estimates include individual and corporate income taxes, sales and excise taxes and property taxes.

Throughout the report, annual impacts are presented in real (current, uninflated) dollars to maintain comparability in currency amounts across years. The analysis incorporates information from the IMPLAN input-output economic models of Anne Arundel County and Howard County. Estimated economic and tax impacts at Laurel Park include impacts within Howard County.

The analysis also includes potential ridership impacts related to the hypothetical development and estimates the number of new annual transit trips that would result from the development and the annual fare revenue associated with the trips.

Odenton (MARC)

The connected community

Potential to become a strong residential community and two-way commuter hub

Current state

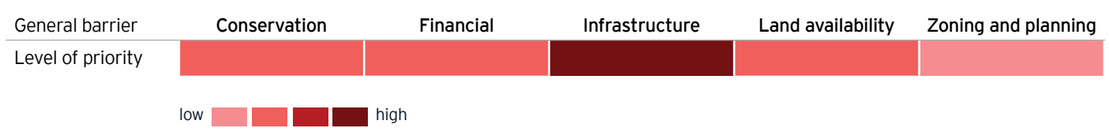
Odenton is a station in Odenton, MD, located on MARC's Penn Line and is less than a mile from the border of Fort Meade, which with over 50,000 employees is Maryland's largest employer and the second-largest Army installation in the United States.[46]

Odenton has the potential to build a strong residential base and become a desirable, walkable community centered around community-serving amenities and ground-floor retail. The area can benefit from its proximity to the National Security Agency and Fort Meade, the largest employer in the state, which could be leveraged to create a more defined commercial presence.

After Baltimore Penn Station and Union Station, Odenton has the third-highest weekday ridership on the Penn Line at 2,816, and very high parking usage, which highlight its potential for TOD.[47]

Odenton has a small-area plan for its town center, which includes the station area, that was written in 2016. This plan, the Odenton Town Center Master Plan, sets goals, design standards and guidelines for development and includes transit supportive zoning requirements.[48] MDOT has also more recently created a station-area concept plan that sets design standards and development expectations more specific to the direct area surrounding Odenton Station.[49]

Since 2015, the 0.5-mile radius around the station has added approximately 700 Class A apartment units and supporting retail across three sites.[50] While additional plans for new developments were considered in the past, many of these have fallen through due to the investment required to construct a new parking garage.



Realizing TOD at Odenton, a community hub

To realize its potential, the station area development could address three key areas.

> "Parking is the biggest challenge at Odenton."
> – Developer

1 Constructing a new parking structure to unlock the potential for TOD

Given that the hypothetical scenario requires existing parking lots to be redeveloped, it could be critical to consider creative strategies to construct adequate structured parking and effectively deploy demand-based strategies. However, efforts to construct a new parking structure and implement TOD have historically failed. This is in large part because multi-family rents and the associated return on cost have not been high enough to justify the construction of a new parking structure.

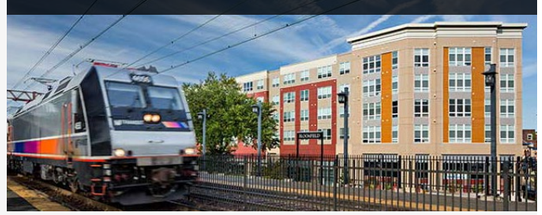
Creative parking strategy: One strategy for managing parking demand could involve redistributing commuter parking to other MARC stations and implementing demand-based parking programs that track trends over time and charge for parking at higher capacity stations, given that most parkers are from nearby communities.[51] A shared parking strategy between commuters and residents at some of the projected multi-family developments could also be further investigated.[52] This could help share the investment burden of the new garage construction, as well as increase long-term development revenues by renting parking spaces to residents.

County/state alignment: Developing a cohesive parking strategy and improving coordination between the County and state can help overcome past funding deficiencies and establish a stronger vision and partnership for the TOD effort with a private developer. In 2019, the County requested help from the state with increasing accessibility to the Odenton MARC Station. When considering how to increase accessibility, stakeholders identified the construction of a new parking garage at Odenton as key to realizing TOD.

The TOD designation was created by the state in 2008 to allow preference in certain discretionary incentives programs, enhanced consideration for capital funding and assistance with planning feasibility around TOD projects.[53] At Odenton, the TOD designation has increased funding and led to improvements in low- to moderate-income communities, storm water infrastructure, public transit service and commercial revitalization at the town center.[54] However, in recent years there has been diminished use of the incentives that are given priority through the TOD designation at Odenton due to a lack of integration between the state and County to negotiate incentive programs that encourage further development. The use of the TOD designation at Odenton should be revisited to spur meaningful development with both state and County involvement.

In addition, the need to streamline the current permitting and approval process arose repeatedly in stakeholder interviews. Developers acknowledged that the menu of fee waivers currently available is economically material and valuable. However, the process to pursue is discretionary in nature, creating significant uncertainty. More prescriptive, predictable local approval processes would likely increase developer interest in Anne Arundel County and accelerate new project activity.

Avalon Bloomfield Station, Bloomfield, NJ[55]



Avalon Bloomfield Station is a mixed-use development that includes 224 multi-family units, 60,000+ square feet of retail space and a 568-space, shared parking structure.[56] [57] There is also a park adjacent to the station with significant open space and trails.

Case study – Innovation Center, VA

Given the increased demand for parking generated by TOD, Fairfax County formed a PPP with a developer and contributed $52 million to the site common infrastructure. This included developing storm water infrastructure, roadways and a 2,100 space, eight-story parking garage.[58]

Federal funding: Apart from applying the TOD designation, the County could attempt to utilize discretionary federal programs such as the Better Utilizing Investments to Leverage Development (BUILD) program. BUILD grants provide an opportunity for the Department of Transportation to invest in road, rail, transit and port projects with a goal of achieving a broader national or regional objective.[59] The Odenton Station is a vital transportation stop between Washington D.C., Baltimore and BWI Airport. The County could advocate that increased parking and infrastructure allows for increased transit development in an area that can act as a suburban hub between Washington D.C., Baltimore and BWI, as well as a primary travel station for those in the D.C. Metro Area. While BUILD grants are over subscribed and, therefore, very competitive, a regional objective of this type could allow the County to feasibly apply for this grant. If successful, the BUILD grant would constitute a minimum $5 million from the federal government.[60]

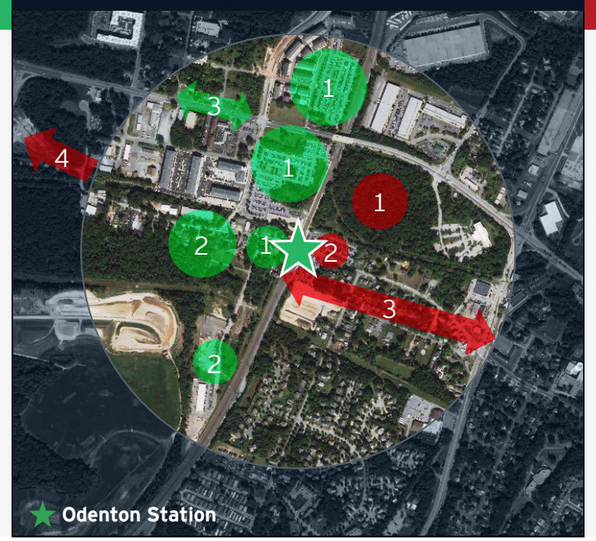
The Transportation Infrastructure Finance and Innovation Act (TIFIA) which is also a federal option benefits communities and local government agencies in the form of direct loans, loan guarantees and standby lines of credit for transportation projects with regional or national significance. Continuing TIFIA, the FAST Act expanded eligibility for loans to include projects to improve or construct public infrastructure that are located within walking distance of, and accessible to transit facilities. The Department of Transportation has focused on the improvement of TOD and has expanded federal loan program eligibility to include TOD projects that significantly integrate into the related transportation facilities.

Leveraging Value Capture (e.g., TIF): As there is already an existing TIF district at Odenton related to past parking and infrastructure improvements, the County could look to restructure the district to help fund a new parking garage. While TIF funding generally addresses public infrastructure projects, it could also be used to support land assembly.[61] Given the higher relative parcel fragmentation of some of the key development sites, creating a TIF district could not only help fund a parking garage, but also help a core developer aggregate enough site control to justify a higher total future profit, encouraging them to contribute more to common site infrastructure.

Hypothetical development considerations

1. Core mixed-use multi-family developments with station adjacent parking and ground floor retail
2. Commercially oriented mixed-use development
3. Commercially oriented mixed-use development corridor

Odenton – development overview 0.5-mile radius



Odenton barriers

1. Wetlands/conservation land
2. Key parking structure
3. Historic subarea
4. Increase transit connectivity to Fort Meade

2 Improving connectivity to Fort Meade could be key to creating a two-way commuter hub

Odenton could have the potential to transform into a true two-way commuter hub, including a robust mix of both residential and commercial inventory. Leveraging incentives to attract employers and improving the station's connectivity to Fort Meade could be critical to increasing the area's office footprint.

Stacking existing job creation incentives: Pairing MDOT's TOD designation with an expanded use of the More Jobs for Marylanders (MJM) job creation tax credit – similar to what the Maryland legislature recently did with MJM and Federal Opportunity Zones (FOZs) within the state – would be a powerful job creation tool within this and other station areas. MJM was intended as a job creation incentive for manufacturers locating and expanding in Maryland. However, MJM was amended in 2019 to be applicable to employers of all industries locating and expanding within FOZs.[62] Similar use of MJM within TOD-designated areas could help attract the mix of commercial and residential activity envisioned.

The County could target defense contractors, aerospace companies, IT/cybersecurity firms or other businesses that are complementary to Fort Meade. There is a cluster of these companies less than a mile west of Fort Meade, but the County could also target similar businesses with a smaller local footprint that are less established in the market.

Connectivity to Fort Meade: Improving the station's connectivity to Fort Meade, Maryland's largest employment center, could increase both commuter inflow and residential demand from people who work at Fort Meade.[63] This could be partially enhanced by increasing shuttle service and frequency to and from the station and Fort Meade or by adding improved bicycle and pedestrian facilities. Funding for this program could be provided through TIF, parking revenues and other creative approaches such as PPPs. A wayfinding study could be conducted to better explore the optimal ways to enhance connectivity between Fort Meade, the station, key development sites and existing residential hubs.

Capitalizing on foot traffic: With increased inflow and outflow of commuter traffic, and thousands of new residents, it could be beneficial to add additional station-centric retail that could better serve pass-through and residential demands. While new multi-family construction could support additional ground-floor retail for a wider variety of outlets, offering property tax abatements targeted to retail may further boost new construction. However, it would be important to phase retail development over time for a more market sustainable approach.

> "Odenton needs two-way transit, where people travel to Fort Meade and Odenton for work, and [from Odenton] to D.C. and Baltimore."
>
> – Transit agency stakeholder

Fort Meade[64]

>50,000 employed by Fort Meade, Maryland's largest employer[65]

> “Community members have expressed the desire for a central park or public common to serve the Odenton Town Center.[72]
>
> – Odenton Town Center Master Plan

3 Designing and implementing a pedestrian-oriented environment with more amenities to increase residential demand

In order to create a more desirable community for potential residents and encourage transit use by the thousands of commuters who live near the station, the County and state could aim to foster an environment which is more conducive to bicyclists and pedestrians. Enhancing existing public amenities could further contribute to efforts related to suburban retrofitting.

Suburban retrofitting: Suburban retrofitting can help foster a more desirable community. Design standards which encourage a more compact, mixed-use core around the station area could be implemented, including a variety of building types with unique facades, attractive display windows and minimal setbacks from sidewalks. There is also a need to enhance the pedestrian environment by incorporating more walkable blocks with improved landscaping, tree canopies and wider sidewalks that can encourage outdoor dining to better capture pass-through commuter spending.[66]

Public park: The current wetlands/conservation land towards the northeast of the station could be converted into a public park. This park could serve as a central gathering place and multifunctional event area for the community, linking the MARC station and nearby residential developments to the Odenton Library. Options for public amenities at this site could include the following: a community center that includes a swimming pool, ice rink or theater, a performance pavilion, a dog park, a playground, recreational fields/courts, a farmer’s market, a community garden and raised boardwalks for pedestrians through the forest/wetlands.[67]

Multiuse trails: The abandoned industrial rail spur that runs east from the MARC station to Piney Orchard Parkway could potentially be converted into a pedestrian and bicycle trail, connecting the station and suggested park to the Washington, Baltimore and Annapolis Trail.[68] Prioritizing connecting this trail, planned trails (e.g., Reece Road Trail) and the suggested park to key residential developments and Fort Meade (e.g., adding bike lanes to roads) west of the tracks may be vital for optimizing their potential to serve the community. Although the County has produced an initial feasibility study for a trail system that will connect the BWI Trail, the Odenton Town Center trails, the WB&A Trail and nearby destinations, the study area does not include Fort Meade.[69]

Leveraging historical assets: Odenton’s station area also encompasses a historic sub-district that includes a mix of over 50 properties designated as historic contributing buildings.[70] While the subdistrict has zoning regulations that limit the potential density of development, the cultural significance of the area as it relates to the railroad’s relevance in the Civil War era could be reflected in the form of monuments, murals, public art or adaptive reuse museums.[71] Furthermore, by encouraging the new construction of low-scale, infill buildings designed to blend in with the existing historic structures, Odenton could create a unique subarea that enhances the character of the overall community.

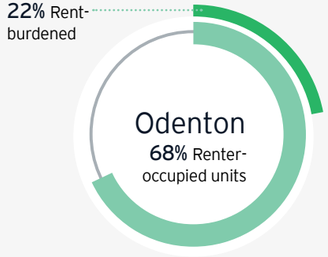
PRESERVING EQUITABLE OUTCOMES

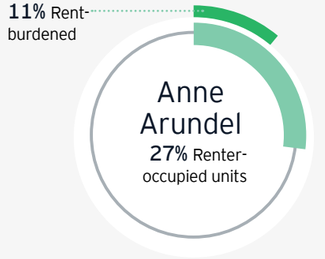
Protecting existing renters and creating affordable housing

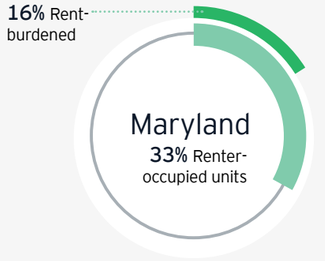
Odenton has a relatively high share of renter-occupied units, many of which are occupied by rent-burdened individuals.[73] Approximately twice the percentage of the population is rent-burdened as compared to the County. Prioritizing anti-displacement strategies from the equity toolkit that support current renters would be critical for allowing the existing community to benefit from TOD.

Odenton has the potential to add substantial affordable housing given its high projected added inventory of residential development. Prioritizing strategies from the equity toolkit that incentivize the inclusion of affordable housing in new development could help promote a more equitable standard of living.

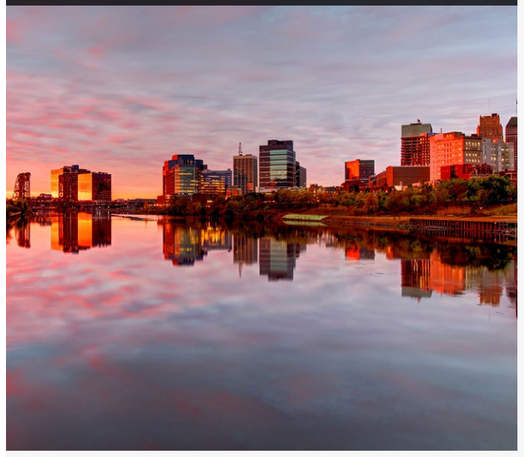
MDOT classified Odenton as a “TOD Designated” station. This designation automatically enables the usage of the Sustainable Communities Program, which in turn provides local governments and community development organizations with funding for essential projects aimed at strengthening communities through activities such as encouraging homeownership and residential improvement. An expanded use of these benefits can be utilized to attract new development and create a more equitable standard of living.[74]







Harrison, NJ[77]



Case study – Harrison, NJ

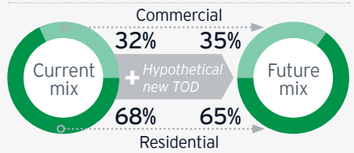
Integrating public serving amenities, parks and trails into an urban environment was key to energizing new development. The Harrison Waterfront Redevelopment Plan included plans to add a large-scale waterfront walkway, waterfront amenities, parks, plazas and other community facilities.[75] Since 2011, over 3,000 residential units, many of which qualify as affordable housing, have been built in a 250-acre designated redevelopment area.[76]

Three pillars of TOD at Odenton

Based on stakeholder interviews and review of other successful TOD projects, the execution of three pillars may allow the County to address the unique challenges and opportunities at Odenton.

Current vs. future mix

The hypothetical new development could shift Odenton into a denser residential community with a more defined commercial presence and sense of place.



1 Residential

- Recent development trends, new construction permits and real estate market fundamentals indicate that Odenton currently has a slightly stronger residential market than commercial.[78] [79]
- New multi-family residential construction could first occur adjacent to the station replacing existing surface parking lots and include significant ground-floor retail to activate the space.
- Shared parking structures that serve both residents and commuters could be included with new multi-family properties.
- Creating a more walkable environment and adding complementary public amenities are key to increasing long-term residential demand. Additional residential development could support supplementary retail added in phases.

Hypothetical new development highlights

- **Multi-family/condominiums** – Over 1,050 mid- to high-quality units. The apartments could be Class A, three- to five-story garden style or mid-rise elevator buildings, based on the current housing stock and recent development trends. Interviews with developers revealed that taller multi-family properties are less financially feasible as the current market rents do not support the higher costs of more vertical construction.

> "The foot traffic [at Odenton] is more people running from the train to get to work or to go home. You need a certain quantity of retail so that it becomes a destination and can be supported by the residents above or the surrounding community."
>
> – Developer

Hypothetical new TOD – residential

Asset breakdown by % of total added square feet

Based on 1,250–1,500 new units

2 Commercial

- While Odenton currently functions as primarily a residential neighborhood, one of the key goals could be to transition the area into a stronger two-way commuter and commercial hub by leveraging opportunities which stem from its proximity to Fort Meade and central location between D.C. and Baltimore.
- Incentivizing the addition of new office inventory could potentially attract in-flow from Baltimore, D.C. and surrounding suburban areas, as well as support enough station-centric retail to support and create a more attractive mixed-use environment.
- To meet existing demand, the retail plan should first focus on introducing merchandise and clothing stores, as well as food and nightlife options. Increasing the retail footprint around the station would be key to capturing pass-through consumer spending, although developers should phase retail construction over time, in order to create a sustainable balance.

Hypothetical new development highlights

- **Office** – Over 580,000 square feet. This could include a mix of Class A, mid- to high-quality traditional offices ranging from one- to five-stories.
- **Retail** – Over 210,000 square feet. This asset could be comprised of mostly ground-floor retail in multi-family buildings closer to the station, with more peripheral small-scale outlet stores that will benefit from their roadway access.
- **Hotel** – Over 70 rooms. This could include a small-scale economy/midscale hotel targeted to business customer segments that are visiting Fort Meade.

3 Public amenity

- Employing suburban retrofitting, creating a more pedestrian-oriented and walkable environment and adding public amenities could foster a more vibrant residential community that better supports new construction.

Hypothetical development highlights

- Public amenities could include a park that serves as a central gathering place, potentially including a community center, recreational fields or public gardens.
- This could also include creating a more walkable pedestrian environment with a new trail connecting the station to the Washington, Baltimore and Annapolis Trail.
- The historic district could be leveraged to add a unique cultural presence to the neighborhood, potentially by incorporating public art or implementing the adaptive reuse of historical structures into museums.

Hypothetical new TOD – commercial

Asset breakdown by % of total added square feet

Based on 830k–1,010k new square feet

THE BOTTOM LINE

Creating a more connected mixed-use center and community

In order to unlock Odenton's potential to transform into a two-way commuter hub, it could be beneficial to increase the station's office presence, supplement residential demand and improve the station's connectivity to Fort Meade. However, before any of these opportunities can be leveraged, creating a strategy to manage parking demand and fund the construction of a station adjacent parking garage should be prioritized. By incorporating public amenities and integrating developments into a more connected transportation environment, Odenton could foster an increasingly vibrant community atmosphere, and consequently, transition into one of Maryland's exceptional mixed-use centers.

Potential economic contributions

The following analysis outlines the potential economic contributions of a hypothetical new development at Odenton, based on the parameters and assumptions described above.[80]

Capital investment impacts

$510m
total capital investment

5,100
total jobs

Operations impacts

2,300
direct jobs

$200m
direct labor income

Potential value

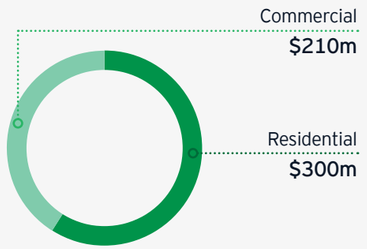
134,000
new trips annually

The hypothetical new development at Odenton would require an estimated $510 million in capital investments. The development would balance residential (59%) and commercial (41%) components. Key findings of the one-time impacts related to this construction are described below.

- Capital investments could directly support an estimated 3,800 direct jobs. These workers could earn an estimated $280 million in direct labor income.
- Including indirect and induced effects, the construction of this development could support an estimated 5,100 one-year jobs (worker years) in the County, meaning each $1 million of construction spend supports 10 direct, indirect and induced jobs throughout Anne Arundel.
- Total capital investments at the Odenton development could support approximately $730 million in total gross economic output, including an estimated $490 million in County GDP.
- Odenton's capital investments could directly contribute approximately $6 million in local taxes within Anne Arundel County and $16 million in direct taxes for the state.

Direct capital investment breakdown at Odenton

Millions of real 2020 dollars

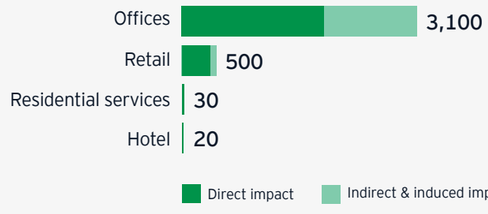


Upon completion of the development's construction, the operation of the new offices, retail, hotel and residential buildings at Odenton would require annual employment. Key findings of the annual impacts of the ongoing operation of these facilities are described below.

- Across all components, the Odenton development could directly support approximately 2,300 jobs. These jobs could, on average, pay nearly $90,000 in annual compensation, supporting an annual direct labor income of $200 million.
- Through indirect and induced effects, operations could support approximately 1,300 indirect and induced jobs, resulting in a total employment contribution of 3,600 annual jobs.
- The operation of this development could annually support approximately $600 million in direct, indirect and induced economic output. Of this, an estimated $390 million would be total Anne Arundel County GDP, including an estimated $280 million in total labor income.
- Operations could also annually contribute approximately $7 million in direct, indirect and induced taxes in Anne Arundel County.

Direct, indirect and induced employment breakdown at Odenton

Number of full- and part-time employees



Note: figures are rounded

Potential economic impacts of construction and operation of the hypothetical new development at Odenton

Millions of real 2020 dollars; number of full- and part-time employees

	Direct impact	Indirect and induced impacts	Total impact
Temporary impacts related to capital investments			
One-year jobs (cumulative)	3,800	1,300	5,100
Labor income (cumulative)	$280	$80	$350
GDP (cumulative)	$350	$140	$490
Economic output (cumulative)	$510	$220	$730
State taxes (cumulative)	$16	$5	$20
Local taxes, county (cumulative)	$6	$3	$9
Annual impacts related to ongoing operations			
Employment (annual)	2,300	1,300	3,600
Labor income (annual)	$200	$80	$280
GDP (annual)	$270	$130	$390
Economic output (annual)	$400	$210	$600
State taxes (annual)	$11	$5	$16
Local taxes, county (annual)	$4	$3	$7

Note: figures may not appear to sum due to rounding.

Source: EY analysis using the IMPLAN input-output multiplier model of Anne Arundel County.

Potential value of Odenton's development

Odenton's development could lead to nearly 460 new weekday riders daily, or approximately 134,000 new MARC trips annually. These new trips could generate an estimated $465,000 in new annual fare revenue.

Based on the expected number of residents and the average public sector cost of services per County resident in 2019, the analysis estimates that the residential component of the hypothetical development could result in $13 million in increased annual expenditures for Anne Arundel County. The analysis assumes that all residents of the development would be new residents in the County. These new residents could generate an estimated $11 million in new annual tax revenues to local jurisdictions within Anne Arundel County. Combined with the estimated County tax revenues related to ongoing operations, Odenton's development could annually support nearly $18 million in new County taxes. While the marginal public-sector cost per resident may be higher than the average shown here, the analysis uses the total county expenditures and total population in 2019 to estimate the average public-sector cost of each new resident.

Cromwell-Glen Burnie

County living, global access

Potential to become a core mixed-use destination

Current state

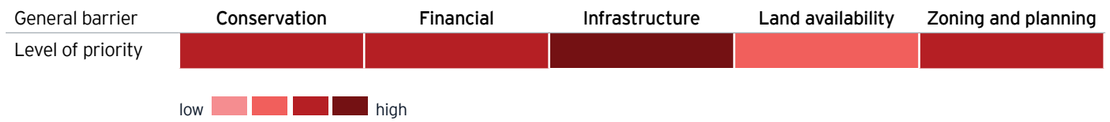
Cromwell-Glen Burnie is a light rail end-of-line station in Glen Burnie, MD on MTA's Light RailLink line that connects Baltimore with its suburbs.

Cromwell-Glen Burnie has the potential to leverage its existing commercial presence to build a stronger residential base centered around a community plaza and transit station. By increasing transit access and connectivity, Cromwell-Glen Burnie could serve as a launching point that catalyzes ridership and development along nearby light rail stations.

While the Anne Arundel County end of the Light RailLink line suffers from low utilization compared to the rest, Cromwell-Glen Burnie has the highest ridership of the Anne Arundel County stations on the light rail, averaging 1,100 weekday riders, and the fourth-highest ridership on the line.[81]

The station area is predominately commercial today, with limited new construction in the past five years. Based on interviews, the County has been in early conversations regarding the redevelopment of the mall across from the station into a mixed-use center. The County has also had early conversations with various private landowners and developers regarding potential development opportunities at sites along Dorsey Road and 8th Avenue NW. [82]

Adding additional service, increasing transit routes to BWI Airport, Glen Burnie Town Center and Annapolis, expanding incentive zones and creating a new small area plan that generates community buy-in and is more TOD-oriented than the 2004 Small Area Plan could help key stakeholders effectively implement TOD at Cromwell-Glen Burnie.[83]



Realizing TOD at Cromwell-Glen Burnie, a suburban center

To realize the potential, the station area development could address three key areas.

1 Increasing light rail utilization through a more integrated transit network

Cromwell-Glen Burnie averages over 1,100 weekday riders – fourth-highest of Maryland's 31 light rail stations – but its upside potential is still limited by the low overall usage of the light rail system in Anne Arundel. The five adjacent stations average fewer than 400 weekday riders, compared to over 700 per station for the line overall.[84] Improving access to Cromwell-Glen Burnie and adding additional transit routes could not only catalyze TOD around the station, but also encourage increased use of nearby stations to access the jobs, shops and public amenities around the station and in Glen Burnie Town Center.

Add transit routes and increase frequency: The County should consider five main improvements to increase connectivity and ridership at Cromwell-Glen Burnie:

1. Increasing light rail and bus service frequency at Cromwell-Glen Burnie could improve the convenience of using the light rail system, stimulating ancillary ridership at the station and nearby stops. Minimizing transfer time to reach BWI Airport and measuring the impacts on ridership and real estate demand in the interim could help inform a cost-benefit analysis for adding new rail and/or bus routes.
2. Adding a new light rail or bus that directly connects to BWI Airport could support residential development by improving connectivity to nearby jobs and allow Cromwell to take better advantage of the strong demand for airport related and serving businesses (e.g., hotels).
3. Extending the light rail line or increasing shuttle frequency could improve the station's access to the shops, restaurants, offices and schools in Glen Burnie Town Center.
4. Planning long-term strategies to expand transit connectivity to Annapolis, the County's largest urban center, could help the County better capitalize on Annapolis's strong economic foundation and integrate a key point of interest destination.
5. Coordinating with the city of Baltimore to better connect the light rail system to the city's core employment centers could increase equitable job access and promote ridership.

From Cromwell-Glen Burnie to BWI Airport:

By car: **10 minutes**

By light rail: **18 to 67 minutes**
(13-minute ride, 5- to 24-minute transfer, 20- to 30-minute frequency)

> "The County doesn't see light rail as an asset … the County needs to enhance the area [Cromwell] as more of a transit hub and connect it to parts of the County not served by transit.
>
> – Local property manager

> "A direct route from Cromwell to BWI would be impactful … the route could be done with minimal capital investment and could even just be a single train that goes back and forth.
>
> – Transit agency stakeholder

Improving safe access for pedestrians and bicyclists

Pedestrian environment improvements could include: improving Baltimore-Annapolis Boulevard with wider, tree-lined sidewalks and medians; extending existing roads through the potential townhome development site to better connect to the station and create a more defined street grid; and safety improvements such as additional passenger canopies and an overhaul of wayfinding, lighting and existing security systems.[85] [86]

Expanding the Baltimore-Annapolis trail would improve bicycle access to the station; expansion efforts could include adding a side path along the rebuilt Baltimore-Annapolis Boulevard and extending a path through Aviation Business Park that directly connects to BWI Trail. The station could also be connected to the Baltimore-Annapolis trail using the Light RailLink embankment to extend the trail over Dorsey Road via a bridge.[87]

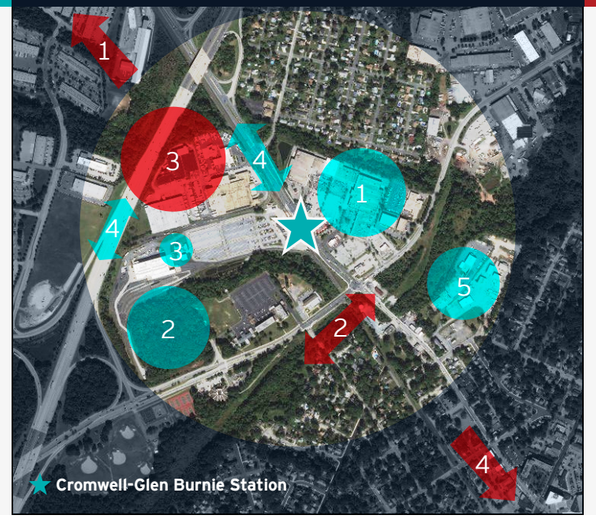
Case study – Station Square/ Allegheny County, PA

Station Square is located just outside of downtown Pittsburgh and is serviced by two light rail lines. This station is the key transit gateway to the suburbs of Pittsburgh and is serviced by a variety of multimodal transit options (e.g., light-rail, buses, busway, shuttle boats and incline transit service). Allegheny County has prioritized integrating transit routes into the pedestrian environment and roadway network to further promote last-mile connectivity.

Hypothetical development considerations

1. Core mixed-use multi-family redevelopment (remodeled retail)
2. Core townhome development site with supporting retail
3. Potential hotel development
4. Potential commercial development
5. Potential mixed-use development

Cromwell-Glen burnie – development overview 0.5-mile radius



Cromwell-Glen barriers

1. Increase transit connectivity to BWI Airport
2. Sawmill Creek (wetland contamination)
3. Industrial zoned land
4. Increase connectivity to Glen Burnie Town Center

2 Leveraging available benefits to support the creative redevelopment of existing real estate assets and preserve small business

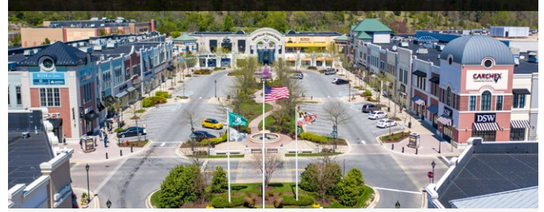
Developers interviewed for the report noted that there has been less demonstrated interest in building around Anne Arundel's light rail line relative to different types of transit systems in other markets. This can be partially attributed to rents not being high enough to justify new construction, and the developers' view that there is less future upside around the County's suburban light rail system. However, parts of the Cromwell-Glen Burnie TOD Zone (0.5-mile station area radius) fall within incentive zones that offer opportunities for enhanced economic returns associated with multi-family redevelopment, retail sustainability and local infrastructure.

County funding: At the County level the station is located across the track from the Glen Burnie Town Center Core Commercial Revitalization Area. This area, home to the Commercial Revitalization Tax Credit Program, among other incentives, provides taxpayers who revitalize their properties in the zone with a property tax credit for up to five years, equivalent to the incremental increase in their real property tax assessment for improvements of at least $100,000.[88] Historically, the credit has been used to renovate and improve three office buildings in the town center. Applying a similar practice, the property credit can also create incentives to support developing multi-family units and retail.

> "From a developer and business perspective, the issue here is crime … the developer that owned the shopping center sold it because of crime. This perception needs to change … a new development here could put some of these issues at bay.
>
> – Business partnership stakeholder

Redevelopment strategy: Higher crime rates are currently keeping rents too low to justify a mixed-use redevelopment at the Cromwell-Glen Burnie's strip center. Across Maryland and Virginia, there has been a trend of redeveloping strip malls and shopping centers into mixed-use centers (especially around transit stations), with a significant multi-family component.[89] A mixed economic profile stemming from new residents at the proposed townhome site in conjunction with available benefits could potentially justify a reasonable return on cost for this future redevelopment.

Hunt Valley Towne Center, Cockeysville, MD[90]



Hunt Valley Towne Center is a mall with over 55 stores located adjacent to an anchor Light RailLink station north of Baltimore, and is currently undergoing significant redevelopment.[91] In 2016, the mall added Avalon Hunt Valley, a 332 unit, 5-story, Class A apartment building.[92] Currently, a developer has plans to spend $150 million to replace most of a 74,600 square feet Sears outlet to add a 125-key hotel, 90,000 square feet of office space and 500 new apartment units over a 13.8-acre parcel.[93] [94]

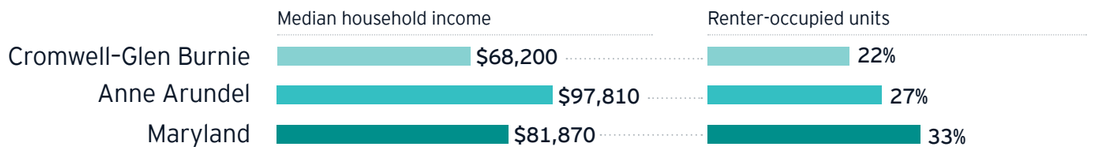
Weekday Light RailLink ridership[95]	744 Hunt Valley	1,102 Cromwell-Glen Burnie

CREATING AN EQUITABLE MIX

Preserving small businesses in a mixed-use redevelopment

Encouraging affordable rental housing in new developments could have a positive impact on the community, given the low percentage of current renters (especially for a TOD site) and the low relative median income at Cromwell-Glen Burnie.[96] Additionally, given the higher existing share of commercial inventory and the potential strategy to redevelop an existing retail strip mall, it could also be important to prioritize the preservation of small businesses.

Current area income and rent metrics



Federal funding: There are New Markets Tax Credit (NMTC)-eligible census tracts located in part of the Cromwell-Glen Burnie TOD area. These designated areas can attract private capital through financial institutions and other investors looking to offset federal income tax with tax credits provided in exchange for making equity investments in designated areas.[97] Working with specialized financial intermediaries called Community Development Entities, the investors benefit from the tax credit as well as their investments in the businesses located in low-income areas. Programs like the NMTC not only encourage development in the area by incentivizing new business, but also support the primary mission of serving low-income communities.

Funding zone expansion: While programs like the Commercial Revitalization Tax Credit and NMTC programs benefit their designated zones, other parts of the TOD area are left without access to the same incentives. Expansion of these zones would allow for more uniformity within the TOD community, and provide developers and business owners across the TOD area around the station with the option of participating in these types of incentive programs.

Seek PPP arrangements to facilitate funding from private and federal sources

Given financial opportunities, branding objectives and/or regulatory requirements, commercial institutions may be motivated to invest in specific TOD areas by contributing directly to capital campaigns or participating in tax equity structures related to federal programs like the NMTC and the Opportunity Zone programs. These layers of additional funding could serve to enhance TOD project economics beyond the incentives available from state and local sources.

3 Aligning TOD with local interests to increase community support

Stakeholders have acknowledged that there has been historic pushback from the community against higher intensity development and the associated potential for increased congestion. Aligning stakeholder vision and generating community buy-in to new plans can increase local support for TOD.

Small area plans can set a vision for TOD and generate community buy-in. The station area lacks TOD-specific zoning and has inefficiently zoned industrial land (industrial uses are typically not best suited for TOD as they are often lower density and less supportive of supplementary mixed-use development).[98] Permitting a mix of uses and establishing TOD design standards can lower re-entitlement risk and set community expectations. In 2019, the Anne Arundel Council applied for a $50,000 grant from the Maryland Department of Housing and Community development to fund a planning and zoning analysis for the Glen Burnie area, illustrating local government support for a small-area plan.[99]

Reducing congestion: In order to offset potential traffic increases, a developer would potentially have to improve the pedestrian and bicycle environment (e.g., adding bicycle paths) along the key commercial corridors connecting the station to downtown Glen Burnie and BWI. Not only could this address a key community concern related to TOD, but it could also improve access to the key development sites, increasing retail demand and market rents.

Engaging the community: Holding community workshops focused on envisioning TOD at an appropriate scale and the potential local benefits of TOD, or establishing long-term project ambassadors in key community groups, could be effective for fostering additional support for TOD projects.

Floodplain management: An additional benefit that could engender community support would be the construction of infrastructure used to mitigate future flooding of the community's multiple tidal watersheds. In the past, flooding of the Patapsco Tidal watershed has led to pollution of local water sources and erosion of rail track foundations. Developers can earn goodwill with the town by integrating these infrastructure updates into their local projects.

To fund these types of infrastructure upgrades, developers can partner with the County or municipality and apply for grants through the Comprehensive Flood Management Grant Program. This state program provides grants to Maryland Communities after flood events to implement flood control projects. This program has been used primarily to fund 50% of the nonfederal share of the FEMA Hazard Mitigation Grant Program funds, which pay up to 75% of the flood mitigation project cost. Other federal programs like the Flood Mitigation Assistance Program can also be utilized through state participation and provide funding for flood mitigation.

Public amenities: Integrating open space and public amenities into new developments could increase community support for TOD. A redevelopment initiative at the station-adjacent retail center could include a plaza and event space with improved landscaping, added trees, greenspace and outdoor dining options. The potential townhome site could include a developer commitment to help fund a farmer's market, an amenity that the County Council has expressed its support for.[100]

> "The older demographic doesn't want to see higher-rise development, but younger people would like to see more forward-looking development."
>
> – Public agency stakeholder

Case study – Allegheny County, PA

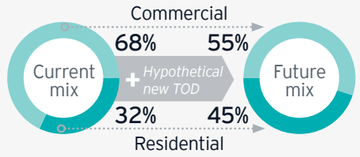
In Allegheny County, local government authorities require that developers interact with the local community before undertaking large-scale projects. Before securing grants for Bakery Square, a redeveloped shopping mall strip in Allegheny County, PA, the developer had to show evidence of job creation and provide the fronting source for the Economic Development Administration grant. This helped align developers with community and government interests and encouraged a consistent vision for TOD across stakeholders.

Three pillars of TOD at Cromwell-Glen Burnie

Based on stakeholder interviews and review of other successful TOD projects, the execution of three pillars may allow the County to address the unique challenges and opportunities at Cromwell-Glen Burnie.

Current vs. future mix

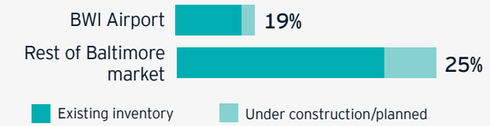
The hypothetical new development could shift Cromwell into a more mixed-use local activity center.



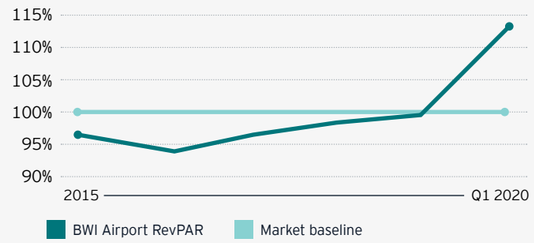
Hypothetical new development highlights

- **Office** – Over 220,000 square feet. This could include a mix of Class A, mid- to high-quality traditional offices ranging from one to five stories.
- **Retail** – Over 260,000 square feet. This asset could comprise ground-floor retail in multi-family redevelopments adjacent to the station, with a wide variety of supporting retail outlets clustered within the proposed mall redevelopment. Supplementary retail could also be scattered across more peripheral mixed-use developments.
- **Hotel** – Over 250 rooms. This could include an economy/ midscale hotel targeted to business/airport travelers.

Ratio of planned hotel construction to existing inventory[104]



BWI airport hotel revenue per available room (RevPAR) penetration vs. market total[105]



1 Residential

- The area's retail surplus could serve as a baseline to support residential development.
- Given that the station area's current composition is over 68% commercial, developers would have to add approximately a 65% relative share of residential inventory to achieve the desired outcome at the estimated level of development density.
- Townhome developments are attractive to developers because they can result in higher margins and returns on investment. The introduction of higher quality townhomes could create a more mixed-income community at Cromwell-Glen Burnie, supporting the future development of higher quality multi-family residences.
- In line with recent trends across Maryland and Virginia, the retail strip center adjacent to the transit station could be redeveloped into a mixed-use center with a significant multi-family component.

Hypothetical new development highlights

- **Townhomes** – Over 160 high-quality two- to three-story units. These homes could include a mix of traditional, stacked or back-to-back townhomes. [101]
- **Multi-family/condominiums** – Over 750 mid- to high-quality units. The apartments could be Class A, three- to five-story garden-style or low- to mid-rise elevator buildings, based on the current housing stock and recent development trends. Interviews with developers have also revealed that taller multi-family properties are less financially feasible, as the current market rents do not support the higher costs of more vertical construction.

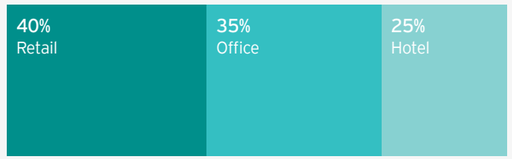
Hypothetical new TOD – residential

Asset breakdown by % of total added square feet

Based on 975–1,200 new units

Hypothetical new TOD – commercial

Asset breakdown by % of total added square feet



Based on 640k–780k new square feet

2 Commercial

- Commercial development could be supported along key corridors given the area's proximity to BWI and strong highway access to I-97.
- The perception of high crime is negatively impacting retail market rents, but improved safety infrastructure could help mitigate this effect.
- Based on pre-COVID-19 national trends, new retail development could include more experience-oriented options integrated into a mixed-use environment to transition Cromwell-Glen Burnie into a more vibrant destination and activate light rail utilization.[102]
- The County could promote pop-up markets and events to activate the area as a destination and increase foot traffic.
- A higher relative share of hotel inventory could be supported given the station's proximity to BWI and the strength of the hotel market.[103] Increasing transit access to BWI would be integral to further enhancing the area's competitive edge in the hotel market.

3 Public amenity

- Improving the pedestrian and bicycle environment could increase transit access and ridership.
- Incorporating public amenities into new developments could enhance their appeal and increase community support for TOD.

Hypothetical new development highlights

- Public amenities could include a large plaza and event gathering space adjacent to the station, a farmer's market, widened roadways and sidewalks and extended bike trails.

THE BOTTOM LINE

Increasing access to transit to catalyze new development that balances private and public interests

Anne Arundel's light rail system currently suffers from limited ridership, which lowers the potential for TOD across the system. However, improving frequencies and adding new transit routes from Cromwell-Glen Burnie to key sites such as BWI Airport and downtown Glen Burnie could catalyze TOD at Cromwell as well as nearby light rail stations. While perception of crime and lower market rents are limiting new development, adding safety improvements and leveraging available incentives could help support higher quality, mixed-use development. Gaining community support for a more transit-oriented small area plan, encouraging developer and community interaction, and incorporating public amenities could be key to implementing successful TOD.

Potential economic contributions

The following analysis outlines the potential economic contributions of hypothetical new development at Cromwell-Glen Burnie, based on the parameters and assumptions described above.[106]

Capital investment impacts

$380m

total capital investment

3,800

total jobs

Operations impacts

1,200

direct jobs

$90m

direct labor income

Potential value

19%

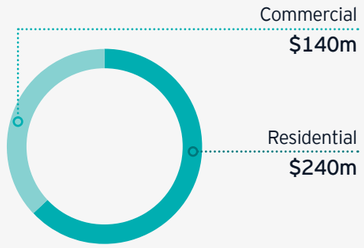
increase in weekday ridership

The hypothetical new development at Cromwell-Glen Burnie would require an estimated $380 million in capital investments. Of this, nearly 63% ($240 million) would be for residential construction, primarily related to the construction of nearly 700 multi-family units. Key findings of the one-time impacts related to this construction are described below.

- The construction of this development could directly support an estimated 2,800 one-year jobs (worker years) in the County and $200 million in labor income. The construction activity could also directly support more than $4 million in direct County taxes.
- Including indirect and induced effects, construction at Cromwell-Glen Burnie could support approximately 3,800 total jobs, $260 million in total labor income and $360 million in Anne Arundel County GDP over the total construction period.
- The development's construction could also contribute a total gross economic impact of approximately $540 million, including an estimated $15 million in total Maryland taxes and $6 million in total County taxes.

Direct capital investment breakdown at Cromwell-Glen Burnie

Millions of real 2020 dollars



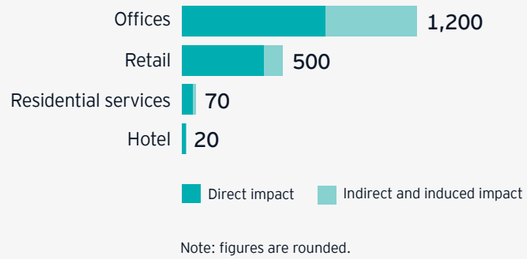
Once construction is completed, Cromwell-Glen Burnie's development would support ongoing employment at offices, retail establishments and residential buildings. Key findings of the annual impacts of the ongoing operation of these facilities are described below.

- In total, the operation of these facilities could directly support an estimated 1,200 jobs at Cromwell-Glen Burnie.
- Through indirect and induced effects, operations could support an additional 600 jobs, resulting in a total annual employment contribution of 1,800 jobs in Anne Arundel County.

- Through direct, indirect and induced effects, Cromwell-Glen Burnie's development could support approximately $270 million in total economic output, including $170 million of Anne Arundel County GDP.
- The ongoing operations at Cromwell-Glen Burnie could also contribute tax revenues for the County and state. Including indirect and induced effects, this development could contribute approximately $7 million in total state taxes and an additional $3 million in County taxes annually.

Direct, indirect and induced employment breakdown at Cromwell-Glen Burnie

Number of full- and part-time employees



Note: figures are rounded.

Potential economic impacts of construction and operation of the hypothetical new development at Cromwell-Glen Burnie

Millions of real 2020 dollars; number of full- and part-time employees

	Direct impact	Indirect and induced impacts	Total impact
Temporary impacts related to capital investments			
One-year jobs (cumulative)	2,800	1,000	3,800
Labor income (cumulative)	$200	$60	$260
GDP (cumulative)	$260	$100	$360
Economic output (cumulative)	$380	$160	$540
State taxes (cumulative)	$11	$3	$15
Local taxes, county (cumulative)	$4	$2	$6
Annual impacts related to ongoing operations			
Employment (annual)	1,200	600	1,800
Labor income (annual)	$90	$30	$120
GDP (annual)	$120	$60	$170
Economic output (annual)	$180	$90	$270
State taxes (annual)	$5	$2	$7
Local taxes, county (annual)	$2	$1	$3

Note: figures may not appear to sum due to rounding.

Source: EY analysis using the IMPLAN input-output multiplier model of Anne Arundel County.

Potential value of Cromwell-Glen Burnie's development

This development could lead to approximately 200 new daily weekday riders, or an estimated 58,000 new light rail trips annually. These new trips could generate approximately $196,000 in new annual fare revenue.

Based on the expected number of residents and the average public sector cost of services per County resident in 2019, the analysis estimates that the residential component of the hypothetical development could result in $10 million in increased annual expenditures for Anne Arundel County. The analysis assumes that all residents of the development would be new residents in the County. These new residents could generate an estimated $8 million in new annual tax revenues to local jurisdictions within Anne Arundel County. Combined with the estimated County tax revenues related to ongoing operations, Cromwell-Glen Burnie's development could annually support nearly $12 million in new County taxes. While the marginal public-sector cost per resident may be higher than the average shown here, the analysis uses the total county expenditures and total population in 2019 to estimate the average public sector cost of each new resident.

Laurel Racetrack (MARC)

Connecting counties: rail, racing and residents

Potential to become a mixed-use destination that connects three counties

Current state

Laurel Racetrack (MARC) is currently a flag stop on a shared line between CSX and MARC Camden, where passenger trains stop only at the request of riders getting on or off.

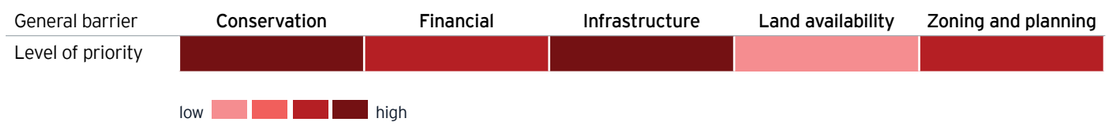
Laurel Racetrack has the potential to add significant mixed-income residential units adjacent to an improved rail station and renovated horse racing track, and better connections to downtown Laurel and the rail station there. These developments could improve ridership on the under-utilized MARC Camden Line and help provide more affordable housing to local, underserved residents.

Due to the infrequent service and limited resident pool, Laurel Racetrack has very low ridership. The station sits in Maryland City, MD in Anne Arundel, borders Howard County and is approximately half a mile from downtown Laurel and the Laurel station in Prince George's County. The station is also adjacent to the Laurel Park racetrack.

Much of the land available for development in the immediate area is owned by 1/ST Properties. The developer has started to introduce a multi-phase mixed-use project in Howard County and redevelop the Maryland Jockey Club at Laurel Park in Anne Arundel County.[107] [108] Outside of the 0.5-mile station area radius, there is also a 58-acre site in Anne Arundel County development potential.[109]

The Racing and Community Development Act of 2020 requires the Maryland Jockey Club to lease or otherwise provide for the long term use of the property by Anne Arundel County, or its designee, for a period at least as long as bonds are outstanding, with some exceptions. At the end of the term, rights to the property will be returned to Maryland Jockey Club.[110] This legislation also allows for up to $375 million in bonds to be issued by the Maryland Stadium Authority to fund redevelopment projects at the Laurel Park racetrack and Pimlico racetrack in Baltimore.[111]

In order to optimize the station's potential for TOD, it may be necessary to increase frequency of service at Laurel Racetrack, improve the station and increase connectivity across the counties as well as between the Laurel and Laurel Racetrack stations. Incorporating a public benefit into a TOD package could help encourage government financial support for these infrastructure improvements.



Realizing TOD at Laurel Racetrack, a suburban center

To realize the potential, the station area development could address three key areas.

1 Expand the use of incentives to fund the needed station infrastructure

The County could work to increase market confidence for stakeholders by streamlining the permitting process and expanding available incentives to encourage existing and future plans for new construction.

A multi-jurisdictional partnership involving multiple counties could boost stakeholder confidence and encourage a shared vision by establishing a strategic plan and designating the station as a TOD/Sustainable Community. The partnership could create mutual buy-in from Howard County, Anne Arundel County, Prince George's County and other government stakeholders while generating additional incentive opportunities through the Sustainable Communities designation. This designation would permit eligibility and prioritization for several state discretionary incentives programs and an expanded scope for the local use of TIF.

Laurel Racetrack (MARC) appears to require significant infrastructure improvements. The station is currently a flag stop that may need new renovations to handle the increased ridership from the TOD; renovations could include the addition of new safety improvements, platforms and passenger canopies.[112] Although CSX has specific safety requirements for station construction, creative strategies could be considered to address them. A potential solution could be allowing the developer to outfit the station with gates that only open when the train is at the station, mitigating these safety concerns.[113] To assist with infrastructure funding, the County could consider establishing a TIF, one of the most widely used and effective tools for funding infrastructure and encouraging economic development.[114]

Notably, efforts to establish a TIF around Laurel Racetrack have historically been unsuccessful, largely due to negative public perceptions. However, most TIFs are designed to benefit not only the developer, but more importantly, the broader community – shifting this perception could be paramount in funding TOD.

> "Anne Arundel's approval process can be time-consuming ... what we originally expected to be a by-right process took years to come to fruition.
>
> – Developer

> "We think that a multi-jurisdictional partnership where Anne Arundel County, Howard County, the state and the federal government all contribute to a subsidy is the best way forward for development of a new station.
>
> – Developer

Case study – Potomac Shores, VA

In order to fund the construction and design of a new station, Potomac Shores contributed nearly $20 million and partnered with SunCal (the developer), Virginia Railway Express, CSX, the Commonwealth of Virginia, Prince William County and the U.S. Department of Transportation to coordinate the design and construction of the station.[117] This PPP involving multiple levels of government has been key to funding the common site infrastructure to allow for the development of a profitable mixed-use TOD.

Laurel Racetrack presents a unique opportunity to significantly benefit the public through a TOD package that may positively impact multiple counties and better connect Laurel and nearby residents to the new development near Laurel Racetrack. Benefits like increased tax revenues and the creation of public infrastructure could rehabilitate the community, reconstruct highways that are currently unsafe for most users, and attract new jobs.

The state could also look to bundle benefits from existing programs – including tax credits, grants and loans – tied to capital investment and job creation. Similar to what Maryland did with Opportunity Zones, expanding the applicability and use of the More Jobs for Marylanders tax credit program to TOD-designated areas could encourage developers and employers to locate within the TOD, driving further capital investment and job creation. Offering the More Jobs for Marylanders program to non-manufacturers located within TODs would allow for:

1. A refundable credit against the state's income tax of 5.75% of qualified wages.
2. Up to a full abatement of the state property tax portion.
3. A refund of sales and use tax on amount of sales and use tax paid by the qualified business entity during the immediately preceding calendar year (limited to $1 million per fiscal year).[115]
4. A waiver of fees charged by the Department of Assessments and Taxation.[116]

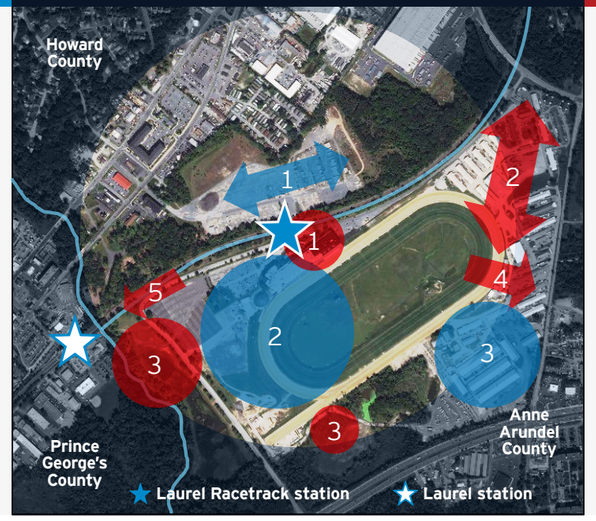
Such a change would elevate the importance of TOD-designations and encourage a wide array of business entities to locate and grow near these stations as development occurs.

By creating a TOD designation at Laurel Racetrack and expanding current incentives offered, stakeholders will be better equipped to fund the infrastructure necessary to support increased ridership and connectivity, as well as encourage economic growth.

Hypothetical development considerations

1. Paddock Pointe: mixed-use development
2. Redevelopment of the Maryland Jockey Club and Laurel Park Racetrack
3. Potential mixed-income, mixed-use development

Laurel Racetrack – development overview 0.5-mile radius



Laurel Racetrack barriers

1. Need for renovated station
2. Industrial-zoned land
3. Open space zoning/ conservation land/ wetlands/floodplains
4. Minimal connectivity to potential future development sites
5. Minimal connectivity to Laurel Station

2 Incorporating community-serving benefits in TOD to increase public stakeholder support

Based on public stakeholder feedback, it may be necessary to incorporate community-serving benefits in plans for TOD to foster public stakeholder support, especially as it relates to receiving government funding for the counties and the state. Potential benefits could include affordable housing and outdoor community spaces.

1/ST Properties existing plans for new construction encompass most of the available land surrounding the station, however, the developer has indicated that their plans are subject to change given the impacts of COVID-19.[118] [119] However, there is a potential ~30 acre site at the southeast edge of the station area that could be subdivided out from an existing 287-acre parcel for a potential development.[120] Plans could include a mixed-use development with an affordable housing component to serve some of the 1,040+ Maryland Jockey Club employees and the 900+ equine athletes.[121] However, given that the 287-acre parcel is currently zoned industrial, the potential 30-acre parcel that could be subdivided out may need to be rezoned to support a more mixed-use residential development.

There are also significant wetlands towards the south of the station that currently inhibit connections between Laurel and Laurel Racetrack and new development. While feasibility studies may need to be conducted, activating the wetlands into community assets could be considered to garner broader public support. For instance, part of the wetlands towards the southwest of the station could be integrated into a larger trail system.

There is also a 58-acre potential development site in Anne Arundel at the southeast edge of the station area. In accordance with the Racing Community Development Act of 2020, Anne Arundel County is the development entity for these parcels and the Maryland State Authority will be issuing bonds to finance their redevelopment.[122] The County could promote a development plan that includes public benefits (e.g., amenities, affordable housing, local job creation). Coordinating a holistic plan across the potential 58-acre and ~30 acre development sites may optimize the area's potential.

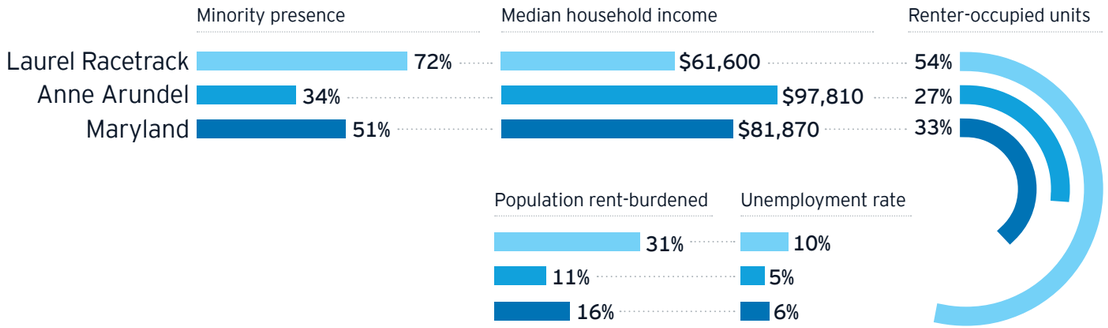
> "A TOD package [at Laurel Racetrack] would have to have a form of public benefit to gain council support."
>
> – Public agency stakeholder

> "Howard County has a moderate-income housing requirement for 15% of the units … market rate would probably be around $300,000 to $350,000 per unit and moderate-income housing would probably be around $250,000 per unit."
>
> – Developer

CROSS-COUNTY EQUITY

Promoting equitable outcomes through hiring and housing

The unemployment rate of the area surrounding Laurel Racetrack station is approximately twice as high as that of Anne Arundel County. To encourage a more equitable outcome, a developer could potentially commit to promoting local employment or include space for small-business tenants in return for financial commitments from public stakeholders. Reducing the unemployment rate could further assist with improving the surrounding area's median household income, which is currently 32% lower than that of Anne Arundel County.[123]



Laurel Racetrack has a relatively high share of renter-occupied units as well as rent-burdened individuals – there is a need for preserving affordable rental housing, which could be accomplished by leveraging strategies from the Equity Toolkit. Incorporating affordable housing components into new developments at potential development sites could also benefit the local community. An improved public trail system could also encourage health equity.

3 Increasing connectivity between key sites to create a more integrated cross-county community

Increasing the frequency of MARC stops at Laurel Racetrack station and improving residents' access to the city of Laurel and the potential 30-acre and 58-acre development sites could optimize TOD synergies across counties. Leveraging a multi-jurisdictional partnership and expanding benefit zones could help finance these improvements and better coordinate stakeholder alignment.

Laurel Racetrack is currently a flag stop on a shared line between CSX and MARC, where trains stop only if signaled to do so. Increasing the frequency of stops at Laurel Racetrack may encourage increased transit usage along the underutilized MARC Camden Line by more optimally serving the transit needs of Prince George's, Howard and Anne Arundel counties.[124] While there is a Memorandum of Understanding between CSX and MTA which calls for upgraded service to include three designated morning stops to Washington, D.C. and three evening return stops, the implementation and potential future expansion of these service changes could support new development.[125]

Laurel station is the busiest non-terminal station on the Camden line with an average weekday boarding of 621 passengers, but has 1.4 riders per parking spot, one of the highest oversubscription rates on the MARC system.[126] Increasing frequency of service across the Laurel and Laurel Racetrack stations could help share the parking burden as well as better serve current and future Howard County and Anne Arundel County residents, many of whom have to travel to Laurel Station.

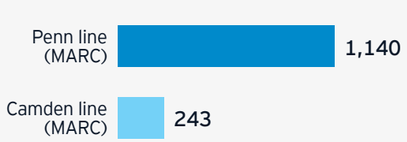
Enhancing Laurel Racetrack station's connection to downtown Laurel, the City of Laurel station and the 58-acre Anne Arundel development site – potentially by adding a low-speed vehicle, bicycle and pedestrian connection and establishing a safe, slow speed, pedestrian friendly bridge over the Patuxent River – could help to optimize service at both stations. Upgrading existing vehicle tunnels could also be a cost-effective way to connect Howard County and Anne Arundel County at Laurel Racetrack. However, any enhancements would likely need to be coordinated with CSX.

A shuttle service that runs between these key sites could also be considered to better connect the key points of interest across the three counties. Ultimately, conducting a cross-county wayfinding study for the core areas of interest could be an efficient way to begin planning a more well-connected TOD pattern for Laurel Racetrack.

> "Renovations and [increased] capacity [at Laurel Racetrack] will result in added ridership and supplement the existing overcrowded station at the city of Laurel."
>
> – Developer

Weekday ridership

Average weekday ridership per station



Parking constraints limiting ridership growth

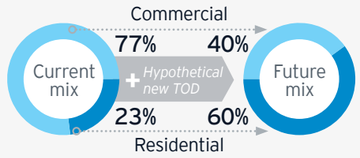
Three pillars of TOD at Laurel Park

Based on stakeholder interviews and review of other successful TOD projects, the execution of three pillars may allow the County to address the unique challenges and opportunities at Laurel Racetrack.

The hypothetical new TOD is reflective of all new development within the 0.5-mile station radius, which includes both Anne Arundel and Howard counties.

Current vs. future mix

The hypothetical new development could shift Laurel Racetrack into a more mixed-use residential community and entertainment-based transit hub.



1 Residential

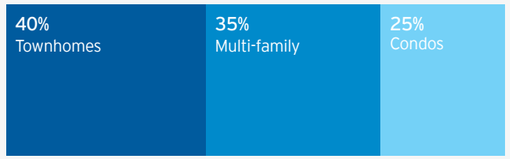
- The station area's existing retail surplus in combination with Laurel Park racetrack's function as a destination asset could help support residential construction.
- The development at Paddock Pointe includes townhouse-style and elevator building condominiums, which could help create a stronger residential market to support denser multi-family residential development in future phases.
- A mixed-use, mixed-income housing development that supports the horse keepers, jockey men and low- to-moderate-income residents could be key to bolstering government support for infrastructure construction that may increase transit capacity and improve intercounty connectivity. However, some of the land on the Anne Arundel County side of the station may need to be rezoned from industrial to allow for a more residentially oriented, mixed-use development.
- Given the impacts of COVID-19 on the office and retail real estate markets, local developers have indicated an increase in residential relative to commercial demand at Laurel Racetrack. Allowing the developer to build at a higher residential density than permitted by Paddock Pointe's zoning (e.g., by trading the currently allowed commercial density for a higher allowable residential density) in return for the developer agreeing to include a higher relative percentage of affordable housing could lead to increased realized density and create a more mixed-income and equitable community.

Hypothetical new development highlights

- **Townhomes** – Over 325 high-quality, two- to four-story units. These homes could largely comprise of 2-over-2 townhouse-style condominiums based on Phase I Paddock Pointe site plans.
- **Multi-family/condominiums** – Over 1,125 mid- to high-quality units. The apartments could be Class A, three- to five-story mid-rise elevator buildings, based largely on building designs from existing Paddock Pointe site plans.
- **Affordable housing** – Some portion of the hypothetical development may need to be designated as affordable or medium-income housing.

Hypothetical new TOD – residential

Asset breakdown by % of total added square feet



Based on 1,450–1,800 new units

2 Commercial

- Complementing a commercial footprint with increased transit frequency at Laurel Racetrack station could be key to creating a two-way commuter hub and increasing MARC Camden Line utilization. Increasing access to incentives and adding infrastructure improvements may also be key to supporting increased commercial density.
- The redevelopment of the Maryland Jockey Club at Laurel Park could solidify the area's presence as an entertainment destination. Ancillary effects stemming from this increased foot traffic could support retail demand and increase market rents.
- Current station area site plans do not include a hotel component and local developers have indicated that there is minimal market demand for hotels.[128]

Hypothetical new TOD – commercial

Asset breakdown by % of total added square feet

Based on 540k–660k new square feet

Hypothetical new development highlights

- **Office** – Over 380,000 square feet. This could include a mix of Class A, mid- to high-quality traditional offices. Based on existing site plans for Paddock Pointe, most of the office inventory could be comprised of buildings ranging from five- to seven-stories.
- **Retail** – Over 160,000 square feet. An estimated 90,000+ square feet of the retail space could account for a new clubhouse, which is part of the planned redevelopment of the Maryland Jockey Club and intended to include significant event space.[129] The remainder of the retail space will likely be primarily composed of ground-floor retail in mixed-use developments or complementary retail surrounding the Laurel Park racetrack.

3 Amenity

- Public stakeholders have emphasized the importance of incorporating a form of public benefit into a TOD package in order to receive government support.

Hypothetical new development highlights

- Planned community serving amenities at the Paddock Pointe site include 25 acres of open/recreation space, a dog park, a sports park, a community garden, a canoe/kayak launch site, a multiuse path and a community square adjacent to the station.
- Barring the feasibility of doing so, existing wetlands could be activated into community spaces highlighted by a trail system.

THE BOTTOM LINE

Creating a community and entertainment center that connects residents across counties

Given that Laurel Racetrack is currently a flag stop, increasing transit service, improving last-mile connectivity, and adding significant station improvements could be critical to unlocking the area's potential as a defined mixed-use destination and transit hub. Expanding existing benefits could be necessary to fund the required infrastructure improvements and establishing a multi-jurisdictional partnership could align stakeholder vision and maximize implementation. However, there would likely need to be some form of community-serving benefit incorporated into the TOD to obtain public financial support. Executing on these considerations could be key to connecting Prince George's, Anne Arundel and Howard counties through TOD.

Potential economic contributions

The following analysis outlines the potential economic contributions of hypothetical new development at Laurel Racetrack, based on the parameters and assumptions described above.[130]

The potential economic contributions are reflective of all hypothetical development within the 0.5-mile station radius, which includes both Anne Arundel and Howard counties.

Capital investment impacts

$560m
total capital investment

5,100
total jobs

Operations impacts

1,800
direct jobs

$130m
direct labor income

Potential value

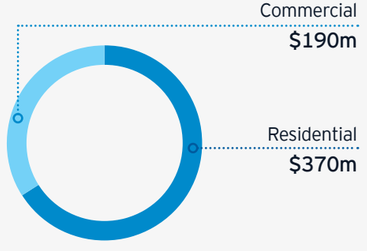
$95,000
new annual fare revenue

The hypothetical new development at Laurel Racetrack would require an estimated $560 million in capital investments. The development balances residential ($370 million) and commercial components ($190 million). Key findings of the one-time impacts related to this construction are described below.

- The construction of this development could require 3,800 direct one-year jobs (worker years) in Anne Arundel County and Howard County. These jobs could support an estimated $300 million in direct labor income over the construction period.
- Including indirect and induced effects, construction at Laurel Racetrack could support approximately 5,100 total jobs. This one-time employment impact could also support nearly $530 million in total GDP across the two counties, including an estimated $380 million in total labor income.
- Construction at Laurel Racetrack could support a total gross economic output contribution of $780 million. Of this, approximately $20 million would be total state taxes and $10 million would be total taxes in Anne Arundel County and Howard County.

Direct capital investment breakdown at Laurel Racetrack (MARC)

Millions of real 2020 dollars

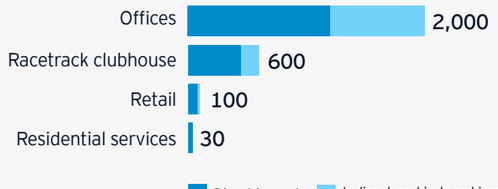


Once operational, this development could support annual employment around the Laurel Racetrack station at offices, shops, residential buildings and a new clubhouse at the racetrack. Key findings of the annual impacts of the ongoing operation of these facilities are described below.

- In total, the operation of these facilities could directly support approximately 1,800 jobs at Laurel Racetrack. On average, these employees would annually earn nearly $72,000, equal to an annual direct labor income contribution of $130 million.
- Operations at Laurel Racetrack could support an estimated 900 indirect and induced jobs in Anne Arundel County and Howard County. This employment multiplier of 1.5 means that for every 100 jobs directly supported at the development, 50 jobs could be supported elsewhere in the counties.
- Through direct, indirect and induced effects, the operation of this development could annually support approximately $410 million in total economic output. Of this, more than $270 million could be through direct effects.
- In total, the development could support approximately $250 million in annual GDP, including $5 million in direct, indirect and induced taxes for Anne Arundel and Howard counties.

Direct, indirect and induced employment breakdown at Laurel Racetrack

Number of full- and part-time employees



Note: figures are rounded.

Potential economic impacts of construction and operation of the hypothetical new development at Laurel Racetrack

Millions of real 2020 dollars; number of full- and part-time employees

	Direct impact	Indirect and induced impacts	Total impact
Temporary impacts related to capital investments			
One-year jobs (cumulative)	3,800	1,300	5,100
Labor income (cumulative)	$300	$80	$380
GDP (cumulative)	$390	$130	$530
Economic output (cumulative)	$560	$220	$780
State taxes (cumulative)	$16	$4	$20
Local taxes, county (cumulative)	$6	$3	$10
Annual impacts related to ongoing operations			
Employment (annual)	1,800	900	2,700
Labor income (annual)	$130	$50	$180
GDP (annual)	$170	$80	$250
Economic output (annual)	$270	$140	$410
State taxes (annual)	$7	$3	$10
Local taxes, county (annual)	$3	$2	$5

Note: figures may not appear to sum due to rounding.

Source: EY analysis using the IMPLAN input-output multiplier models of Anne Arundel County and Howard County.

Potential value of Laurel Racetrack's development

This development at Laurel Racetrack and subsequent improvements to transit service could lead to nearly 100 new daily weekday riders on the Camden Line. There could be 28,000 new trips annually, equivalent to an estimated $95,000 in new annual fare revenue.

Based on the expected number of residents and the average public sector cost of services per County resident in 2019, the analysis estimates that the residential component of the hypothetical development could result in $15 million in increased annual expenditures for the counties. The analysis assumes that all residents of the development would be new residents in the counties. These new residents could generate an estimated $13 million in new annual tax revenues to local jurisdictions within Anne Arundel County and Howard County. Combined with the estimated County tax revenues related to ongoing operations, Laurel Racetrack's development could annually support nearly $18 million in new taxes. While the marginal public sector cost per resident may be higher than the average shown here, the analysis uses the total county expenditures and total population in 2019 to estimate the average public sector cost of each new resident.

Conclusion

Transit-oriented development can be an essential component of a long-term growth strategy in Anne Arundel County. TOD has contributed to the advancement of transit stations and their surrounding communities across the United States, and these success stories have laid the blueprint for Anne Arundel County. Existing infrastructure and communities at Odenton, Cromwell-Glen Burnie and Laurel Racetrack have demonstrated the near-term potential that is needed to follow such a blueprint.

Based on this potential, and the existing infrastructure and community at each station, this analysis envisioned vibrant mixed-use developments that would bring new jobs and new residents to the area, including affordable housing and improvements to the pedestrian environment. While barriers exist to the implementation of such transformative developments, they may be overcome. With effective planning and commitment, these barriers may be resolved, and the benefits of completing these TOD projects could be monumental, helping pave the way for the future of the County.

Appendix

Assessing development potential through the TOD Readiness Index

Overview of readiness methodology

The EY team developed a TOD Readiness Index to identify stations in Anne Arundel County that present the best opportunity for near-term TOD and where TOD can have the most transformative community impact.

The Readiness Index produces an overall score for each of the nine evaluated stations, covering a range of components integral to successful TOD: transit, demographics, employment and real estate. The Index was developed based on extensive research, including a literature review of existing TOD studies, interviews with over 30 stakeholders and significant location evaluation experience.[131]

Stations were evaluated based on the presence of key conditions essential to effective implementation of TOD; Tier 1 and Tier 2 barriers.

Tier 1

evaluates current transit use and effectiveness, and aims to highlight how current transit service and ridership could limit the potential of developments at the station.

Tier 2

evaluates current land availability with the purpose of excluding stations where new physical developments are simply not feasible.

Determining TOD Readiness – methodology overview

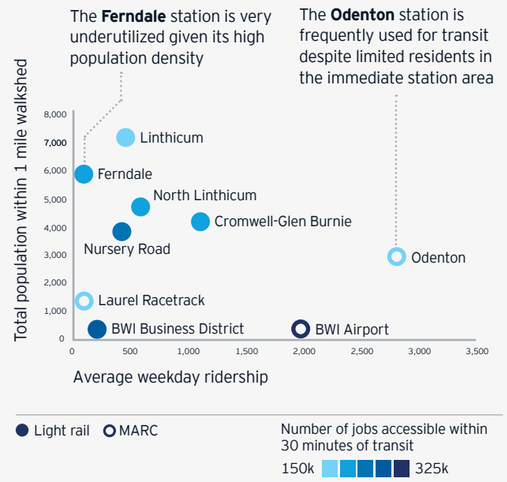
Summary of overall Readiness Index with detailed description of selected stations

Overview of ridership and transit access analysis

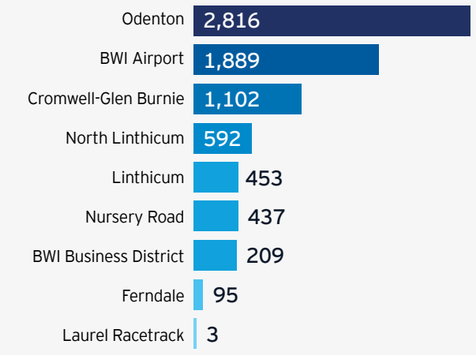
The first barrier analysis evaluates basic transit and population statistics to determine if the current transit options available at a station are useful to the residents and workers. Infrequent transit service is a notable limitation to TOD's vast potential, as it immediately limits the pool of people most likely to utilize the development. Laurel Racetrack and BWI Business District both have small resident communities while also experiencing very low ridership.

Although the concern of transit use is similar between these two stations, the driving forces behind the low ridership are very different. At Laurel Racetrack, it is the current level of transit service and proximity to Laurel Station that causes the near nonexistent ridership. The MARC station is a flag stop on the Camden Line, so there are no scheduled stops at the station; trains only stop when passengers need to board or de-board. This is a difficult barrier for TOD as improvements to transit service can require a lengthy and strenuous process.

Station ridership compared to the local resident population



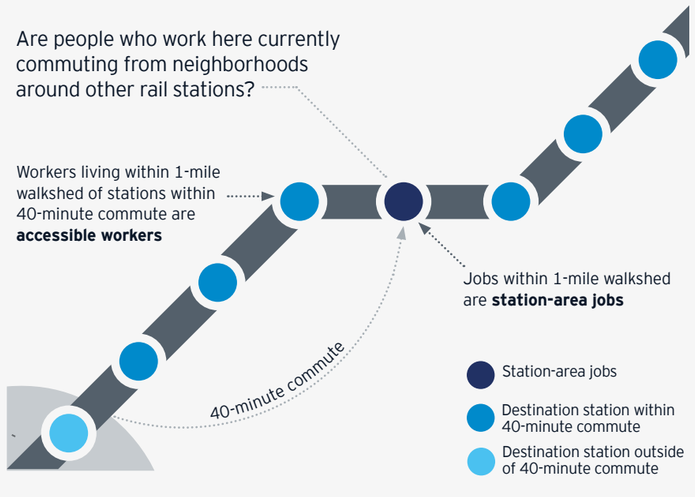
Average weekday ridership



Source: Maryland Department of Planning Transit Station Area Profile Tool (TSAPT); Maryland Mass Transit Administration (MTA)

BWI Business District has reasonable service, but poor ridership due to limited connectivity between the jobs available around the station and workers living along the Baltimore Light RailLink. The EY team conducted an origin-destination analysis of commuters in Anne Arundel County and found that BWI Business District is a destination station, with more than 20 times as many station-area jobs as there are origin workers.[132] However, the station's existing transit service is not particularly valuable to this employment hub, as less than 3% of the workers (e.g., station-area jobs) can reach their job from their home via the light rail in a reasonable commute (40 minutes or less). This is a major barrier to successful TOD because this lack of connectivity cannot be solely addressed by developments at BWI Business District, but would require residential development all along the rail line.

Origin-destination analysis: evaluating commuting patterns of a station's workers



Summary of Readiness Index results

In the TOD Readiness Index, stations were evaluated under two alternative Index specifications:

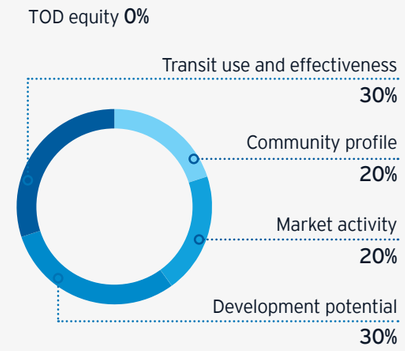
1. Development-focused
2. Community-focused

The **development-focused** scenario evaluates TOD readiness in a traditional sense and does not reward a given station for community impact potential. This scenario considers readiness to include frequent transit service, existing residents and high-paying jobs in a strong real estate market.

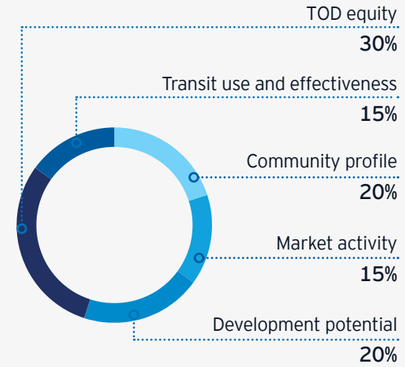
The **community-focused** scenario places an emphasis on the project's ability to promote inclusive growth and bring opportunities to low-income and racial minority communities. In this scenario, high readiness likely reflects an area with high unemployment, low wages and rent/housing cost burden. This scenario has a greater focus on land and property availability, with less emphasis on market activity and no weight for real estate market conditions. The scenario also introduces new factors, including racial minority presence, poverty status, unemployment and to be rent-burdened.

Odenton and Cromwell-Glen Burnie are the top stations in both scenarios – reflecting strong transit ridership, favorable levels of residents and jobs and a need for socioeconomic improvements. Unlike Odenton and Cromwell, Laurel Racetrack does not score well in the traditional, development-focused scenario, but is heavily credited in the community-focused scenario.

Factor weighting in development-focused scenario



Factor weighting in community-focused scenario



Based on these findings, explained in more detail below, Odenton, Cromwell-Glen Burnie and Laurel Racetrack were selected for the subsequent phases of analysis. These selections were made in coordination with Anne Arundel County staff and are supported by MD Department of Planning's TOD Readiness Assessment.

Readiness Index results

Station	Overall score community focus	Overall score development focus	MD Department of Planning overall score[133]
Odenton (MARC)	69	83	10.6
Cromwell-Glen Burnie	64	62	9.5
Laurel Racetrack (MARC)	50	27	9.5
Linthicum	45	61	7.4
North Linthicum	45	47	8.2
BWI Airport (MARC)	45	45	8.0
Nursery Road	44	41	7.9
Ferndale	43	37	7.6
BWI Business District	35	33	7.3

Note: Stations ranked based on overall TOD score in community-focused scenario.

Odenton station highlight

Odenton's TOD readiness score reflects the station's healthy balance of current activity and long-term potential. Odenton is the busiest stop on the Penn Line in Anne Arundel County in terms of ridership and has nearly 2,000 surface parking spots filled daily. It is the closest rail station (approximately 1 mile) to Fort Meade, the largest single employer in the state of Maryland, and the surrounding area has experienced significant growth in terms of residents and jobs over the last decade. Nonetheless, local housing is predominantly renter-occupied and the community struggles with a high rent burden, indicating a need for affordable housing.

Cromwell-Glen Burnie station highlight

Cromwell-Glen Burnie shares many similarities to Odenton in its TOD strengths. The station has good ridership, and the surrounding area, primarily the Glen Burnie Town Center, is densely populated with strong mix of employment. The station area also has good walkability, and relative to other stations, a higher share of residents commuting to work without driving, which is a positive indicator of high usage of the station. The station area can also benefit from new development and increased wages, as the median household income is 30% lower than the Anne Arundel County average.

Laurel Racetrack station highlight

Laurel Racetrack does not experience most of the typical TOD strengths, but instead demonstrates a high potential to improve the wellbeing of the local community. As discussed in the ridership and transit access analysis, Laurel Racetrack has almost no ridership because of extremely limited transit service. The station has a small resident pool in the surrounding area, yet the residents struggle with high unemployment, low wages and a high poverty rate. Furthermore, nearly one-third of the local population is rent-burdened. Additionally, there is political momentum to revitalize the area, and TOD at this station could be transformative, especially considering the high land availability and single developer site control.

Readiness assessment support

The EY team developed a customized process to identify the appropriate evaluation factors and weighting for effective TOD. The TOD Readiness Index includes 85 quantitative factors, covering transit, real estate, demographics and market activity. The index includes data from census, JobsEQ, ArcGIS, CoStar, MDOT MTA and Asset Ally.

The selected factors were then translated into standardized distribution scores based on the ratio to the mean value. The standardized scores allow for differences in magnitude to be preserved across individual criteria and stations, while also allowing these values to be compared across other metrics. Standardized scores for each of the metrics were combined into overall Readiness scores using a custom-calibrated weighting scheme codeveloped with the Greater Washington Partnership (GWP). The overall output of the analysis is a ranking of the nine stations based on the final Readiness scores.

Job connectivity support

As part of the overall readiness assessment, the EY team conducted an origin-destination analysis of commuters in Anne Arundel County. This analysis used The U.S. Census Bureau's Longitudinal Employer-Household Dynamics database to determine the connectivity between residences and jobs at each station. For a station's residents, the analysis defined workers living within a 1-mile walkshed of the node station as origin workers and evaluated whether these workers currently commute to accessible jobs, defined as jobs within a 1-mile walkshed of all stations within a 40-minute commute. Conversely, for a station's workers, the analysis defined jobs within a 1-mile walkshed of the node station as station area jobs, and evaluated whether these jobs are currently being filled by accessible workers, defined as workers living within a 1-mile walkshed of all stations within a 40-minute commute.

Stakeholders interviewed

The EY team and GWP conducted more than 30 meetings with representatives of the following agencies and organizations

- Maryland Department of Transportation
- Maryland Department of Planning
- Maryland Transit Administration
- Washington Metropolitan Area Transit Authority
- Anne Arundel Office of the County Executive
- Anne Arundel Office of Transportation
- Anne Arundel Office of Planning and Zoning
- Anne Arundel Economic Development Administration
- Anne Arundel County Council
- BWI Business Partnership
- Growth Action Network of Anne Arundel County
- Baltimore Metropolitan Council
- State legislators
- Developers and investors
- Station-area landowners
- Business and community organizations

Typology detail analysis – setting a vision

A table detailing more specific characteristics of the primary and secondary components relevant to each typology is outlined below:

	Downtown/urban core	Community hub	Suburban center	Suburban neighborhood
Primary typology components				
Land use mix	▸ Contains a strong mix of residential, mixed-use, retail, office, hotel, civic/cultural, institutional and entertainment space ▸ Higher relative residential share of mid- to high-rise apartments and condominiums to townhomes and low-rise apartments ▸ Typically 30%+ commercial	▸ Predominantly residential with supporting retail and office space ▸ Wide variety of residential types, with an emphasis on higher density multi-family residential areas with rowhouses and apartment buildings and some condominiums ▸ Commercial developments primarily clustered on core mixed-use streets/corridors, although some commercial space embedded throughout the residential areas, especially through ground-floor retail ▸ Higher relative residential share of low- to mid-rise apartments and townhomes to high-rise housing and condos ▸ Typically 50%+ residential	▸ Mix of multi-family residential, commercial, employment and civic/cultural developments primarily oriented around the station ▸ Land near station typically has a dominance of one or two core types (e.g., employment center, retail center) ▸ Development further from the station is often clustered ▸ Primarily single-family detached, row houses or small-scale multi-family residential further from the station ▸ Commercial development largely present along nearby arterials ▸ Typically 30%+ commercial	▸ Predominantly single-family detached residential with some townhomes, small-scale multi-family closer to the station and supporting retail and office space ▸ Commercial development primarily along arterials ▸ Typically 60%+ residential
Density of development	▸ High relative density, especially near transit stations ▸ High residential density ▸ High commercial density with high FARs ▸ Typical FAR: 3+ ▸ Typical DU/Acre: 50+	▸ Medium to high relative density ▸ Medium to high residential density ▸ Clustered commercial density with medium FARs ▸ Typical FAR: 1+ ▸ Typical DU/Acre range: 25-60	▸ Low to medium relative density ▸ Low to medium residential density ▸ Low to medium commercial density, with low to medium FARs ▸ Typical FAR: 0.75+ ▸ Typical DU/Acre range: 10-40	▸ Lower relative density ▸ Low to medium residential density ▸ Low commercial density, with low FARs ▸ Typical FAR range: 0.25-1.5 ▸ Typical DU/Acre range: 5-20
Station area function	▸ Acts as both an origin and a destination for commuters ▸ High relative levels of residents and job density within the station area ▸ Often functions as a mixed-use employment/entertainment center	▸ Acts as primarily an origin for commuters, although can have potential to also function as a destination ▸ High relative levels of residents and low to medium relative job density within the station area ▸ Often functions as a mixed-use commuter hub/neighborhood	▸ Act as both an origin and a destination for commuters ▸ Low to medium relative levels of residents and low to medium relative job density within the station area ▸ Often functions as a mixed-use employment/entertainment center	▸ Act as primarily an origin for commuters ▸ Low to medium relative levels of residents and low relative job density within the station area ▸ Often functions as a residential commuter hub/neighborhood

	Downtown/urban core	Community hub	Suburban center	Suburban neighborhood
Secondary typology components				
Connectivity within the larger transit network	▸ Station served by a high variety of routes of high-frequency levels of transit ▸ Typically includes a mix of transit options including heavy/high speed rail, bus rapid transit, LRT/streetcar, commuter rail and local bus ▸ Bus and rail stations primarily adjacent to each other or are closely connected by a network of streets ▸ High levels of access to the greater transit network ▸ Intermodal stations frequently include enhanced accommodations for transfers ▸ TOD is accessible by various regional connections (e.g., arterials or freeways) ▸ Transit lines typically contain a mix of compact transit nodes for intra-regional travel and dispersed transit nodes for inter-regional travel	▸ Station served by a medium to high variety of routes with medium to high-frequency levels of transit ▸ Typically includes a mix of transit options including bus rapid transit, LRT/streetcar, commuter rail or local bus (can include heavy rail although this is less common) ▸ Bus and rail stations relatively accessible from each other ▸ Medium level of accommodations for transfers provided (e.g., shelters, benches, walkways) ▸ TOD is accessible by various regional connections (e.g., arterials or freeways) ▸ Transit lines typically contain a mix of compact transit nodes for intra-regional travel and dispersed transit nodes for inter-regional travel	▸ Station served by a medium variety of routes with low to medium frequency levels of transit ▸ Typically includes a mix of transit options including bus rapid transit, LRT/streetcar, commuter rail or local bus (can include heavy rail although this is less common) ▸ Bus and rail stations relatively accessible from each other ▸ Low to medium level of accommodations for transfers provided ▸ TOD is typically accessible by at least one regional connection (e.g., arterials or freeways) ▸ Transit lines primarily contain dispersed transit nodes for inter-regional travel	▸ Station served by a low variety of routes with low frequency levels of transit ▸ Transit options often include bus rapid transit or commuter rail; while LRT is less common for this typology, it can sometimes be present in suburban areas on the outskirts of major metropolitan cities ▸ Typically only include either a bus or rail station, although can sometimes include a rail station with minimal bus connections ▸ Low level of accommodations for transfers provided ▸ TOD is typically accessible by at least one regional connection (e.g., arterials or freeways) ▸ Transit lines primarily contain dispersed transit nodes for inter-regional travel
Area and economic centricity	▸ Direct area surrounding station serves as a center of economic activity and commerce for the region ▸ Higher densities typically present in the quarter-mile radius of stations than in the half-mile radius[1]	▸ Predominantly residential area centered around the transit station, with economic activity spread across the station area ▸ Density is typically spread fairly evenly within a half-mile radius of the station with a slight increase closer to the station	▸ Direct area surrounding station serves as a local center of economic and community activity ▸ Higher densities typically present in the quarter-mile radius of stations than in the half-mile radius	▸ Predominantly residential area centered around transit station, with economic activity less focused around the station ▸ Density is typically spread evenly within a half-mile radius of the station
Magnitude of market activity	▸ Relatively high levels of real estate transactions and market activity in surrounding area ▸ High relative levels of commercial transactions to residential transactions	▸ Relatively medium levels of real estate transactions and market activity in surrounding area ▸ High relative levels of residential transactions to commercial transactions	▸ Relatively medium levels of real estate transactions and market activity in surrounding area ▸ High relative levels of commercial transactions to residential transactions	▸ Relatively low levels of real estate transactions and market activity in surrounding area ▸ High relative levels of residential transactions to commercial transactions
Public areas/ open space	▸ Often includes some form of lively, high quality public open space such as a plaza, with various uses and functionalities ▸ Public open space often includes pedestrian friendly amenities including benches, outdoor seating, small performance areas, pedestrian-scale lighting and landscaping	▸ Relatively limited public open space oriented directly around the transit center ▸ Often includes community-oriented amenities such as parks, trails or community centers oriented around residential hubs	▸ Typically includes some form of public open space, plaza or central gathering place close to the station, with supplementary parks further from the station	▸ Relatively limited if any public open space oriented directly around the transit center ▸ Small parks or trails can often be found scattered throughout residential areas
Street and block pattern	▸ Wide pathways/sidewalks to handle high pedestrian volume and allow for outdoor dining ▸ Larger relative sidewalk widths, particularly within one-fourth mile of the station area ▸ More rectangular, regular, smaller blocks that promote walkability ▸ Relatively linear street pattern with consistent alleys ▸ Consistent patterns of grid-like pedestrian walkways and roads ▸ High intersection density ▸ Typical block size is ~200 feet by 400 feet	▸ Wider pathways/sidewalks along key corridors to allow for outdoor dining ▸ More rectangular, regular blocks that promote walkability ▸ Relatively linear street composition with consistent alleys ▸ Consistent patterns of grid-like pedestrian walkways and roads ▸ Medium to high intersection density ▸ Typical block size is ~200 feet by 400 feet in higher density areas	▸ Wider pathways/sidewalks along key corridors to allow for outdoor dining ▸ Mix of block shapes and sizes, with smaller more pedestrian oriented blocks closer to the station and larger blocks further from the station ▸ Medium block sizes ▸ Irregular orientation of pedestrian walkways and roads ▸ Low to medium intersection density ▸ Typical block size is ~200 feet by 800 feet, although varies based on distance from the station	▸ Irregular mix of block shapes and sizes, with smaller more pedestrian oriented blocks closer to the station and larger blocks further from the station ▸ Relatively large block sizes ▸ Mid-block pedestrian passages often present on larger blocks ▸ Irregular orientation of pedestrian walkways and roads ▸ Low to medium intersection density

	Downtown/urban core	Community hub	Suburban center	Suburban neighborhood
Secondary Typology Components				
Building placement	▸ Structures primarily built into the sidewalks with shallow setbacks ▸ Continuous street wall with consistent building directional orientation toward the street ▸ Typical lot coverage: 70+%	▸ Structures primarily built into the sidewalks with shallow setbacks ▸ Continuous street wall with consistent building directional orientation toward the street ▸ Typical lot coverage: 50%-80%	▸ Medium to deep building setbacks from sidewalks, increasing in setback with distance from the station ▸ Mixed building orientation, with buildings adjacent to the station often directionally oriented around the station ▸ Typical lot coverage: 30%-70%	▸ Deep building setbacks from sidewalks ▸ Mixed building orientation ▸ Typical lot coverage: 20%-60%
Building height	▸ Primarily mid- to high-rise residential and commercial buildings ▸ Context-sensitive building heights in historic districts ▸ Typical floor range: 4-80	▸ Primarily mid-rise residential buildings ▸ Primarily low- to mid-rise commercial buildings ▸ Typical floor range: 2-20	▸ Primarily low- to mid-rise residential and commercial buildings, often decreasing in height as distance from the transit station increases ▸ Typical floor range: 2-15	▸ Primarily one- to two-story single-family detached housing or townhomes ▸ Typical floor range: 1-5
Commercial tenant composition	▸ Typically a larger relative share of front office tenants ▸ Larger relative share of destination/regional serving retail tenants	▸ Variable relative shares of front and back office tenants ▸ Larger relative share of local/community serving retail tenants, although can include some supporting destination/regional serving anchor tenants	▸ Variable relative shares of front and back office tenants ▸ Mix of destination/regional serving and local/community serving retail tenants	▸ Typically a larger relative share of back office tenants ▸ Larger relative share of local serving retail tenants
Local transportation composition	▸ Highest levels of pedestrian activity ▸ High levels of bicycle activity ▸ High use of transit systems ▸ Relatively low levels of auto-orientation ▸ Achievable non-auto mode share of 40%+	▸ Medium to high levels of pedestrian and bicycle activity ▸ Medium to high use of transit systems, increasing along higher capacity transit corridors and peak commuting hours ▸ Medium levels of auto-orientation ▸ Balance of pedestrian, bicycle, automobile and transit use ▸ Achievable non-auto mode share of 25%+	▸ Low to medium levels of pedestrian and bicycle activity that increases with proximity to station ▸ Low to medium use of transit systems, increasing along higher capacity transit corridors and peak commuting hours ▸ High levels of auto-orientation ▸ Achievable non-auto mode share of 15%+	▸ Low to medium levels of non-recreational pedestrian and bicycle activity ▸ Low to medium use of transit systems, increasing along higher capacity transit corridors and peak commuting hours ▸ Very high levels of auto-orientation
Pedestrian/ bicycle environment	▸ High levels of pedestrian amenities including covered walkways, high-quality walkway treatments and direct pedestrian access to stations from parking structures ▸ Dedicated bicycle routes (e.g., protected bike lanes, shared use paths, cycle tracks) directly interconnecting the routes, transit stations and bicycle parking locations ▸ High levels of bicycle amenities including bicycle racks, corrals, lockers and covered bicycle parking	▸ Medium to high levels of pedestrian amenities and bicycle amenities, including bicycle parking ▸ Direct, low conflict walking routes to stations ▸ Bicycle friendly routes directly or closely connecting the routes, transit stations and bicycle parking locations	▸ Low to medium levels of pedestrian and bicycle amenities, including bicycle parking ▸ Indirect pedestrian pathways to stations from parking lots and nearby neighborhoods, with pathways often through parking lots ▸ Variable levels of cyclist friendly routes and connectivity to station	▸ Low levels of pedestrian and bicycle amenities, with limited bicycle parking ▸ Pedestrian pathways to stations from parking lots and nearby neighborhoods, with pathways often through parking lots ▸ Minimal if any bicycle routes and connectivity to the station
Automobile parking composition	▸ Parking facilities primarily consist of paid garage parking ▸ High relative share of parking is accommodated by garages ▸ Typically 85%+ of parking is accommodated in garages	▸ Mix of parking facilities consisting of both paid and unpaid garage parking ▸ High relative share of parking is accommodated by garages ▸ Typically 75%+ of parking is accommodated in garages	▸ Mix of parking facilities primarily consisting of unpaid garage parking and surface parking ▸ Medium relative share of parking is accommodated by garages ▸ Typically 40%+ of parking is accommodated in garages	▸ Parking facilities primarily consist of surface parking ▸ Low relative share of parking is accommodated by garages ▸ Typically <40% of parking is accommodated in garages
Daily population flow dynamics	▸ Destinations draw high levels of tourists and visitors from surrounding neighborhoods ▸ Relatively consistent population flow	▸ Commuter flow increased during peak hours ▸ Can attract some nearby visitors from surrounding neighborhoods dependent on level of commercial development	▸ Commuter flow increased during peak hours ▸ Destinations can draw some nearby visitors depending on characteristics of the center (e.g., retail center)	▸ Commuter flow increased during peak hours ▸ Destinations draw minimal nearby visitors and tourists

Incentives overview

Anne Arundel County, the state of Maryland and the US government all offer different types of financial incentives that can help facilitate economic development within the county. There are many programs available, ranging from county startup grants for small businesses, to job creation incentives to attract Fortune 500 employers to the state. Below is a listing of notable incentives programs available in Anne Arundel County relevant to TOD:

Incentives – grants, cost offsets and financing

TOD Designation and the Sustainable Community Program (state): TOD designation provides several potential tools as a result from the benefit of state partnership such as the prioritization for several state discretionary incentive programs and expanded scope for local use of TIF.[134] The TOD Designation program administered by MDOT also allows for an automatic inclusion in the state's Sustainable Community Program administered by the Department of Housing and Community Development. The Sustainable Community Program establishes a shared geographic designation to promote efficient use of scarce state resources targeting historic preservation, housing and economic development to support local sustainability and revitalization strategies.[135] Incentives associated with the program include grants, below market financing and enhanced tax credits. State TOD designation within the state additionally confers several other benefits including technical assistance such as feasibility and planning, prioritization in certain funding decisions, incorporation of state facilities and assistance with addressing transportation and access issues.

Better Utilizing Investments to Leverage Development (BUILD) Grants (federal): The program provides an opportunity for the U.S. Department of Transportation to invest in road, rail, transit and port projects with a national or regional objective.[136] Passenger and freight rail transportation projects are among the many potential uses of this funding. In September 2020, Senators Warner and Kaine of Virginia announced funding through the BUILD program that will subsidize new gridded, elevated roadways that will mitigate flooding.[137] The funding would also help create infrastructure that will feature pedestrian-friendly streets and corridors, enhance access to transit and improve connections to broadband.[138] For projects located in urban areas, the minimum award is $5 million.[139] The minimum total cost for a project located in an urban area must be $6.25 million to meet matching requirements.[140] The maximum award is $25 million. Not more than $100 million can be awarded to a single state.[141]

Transportation Infrastructure Finance and Innovation Act (TIFIA) (federal): This federal program provides credit assistance in the form of direct loans, loan guarantees and standby lines of credit to transportation projects with regional or national significance.[142] The FAST Act expanded TIFIA eligibility to include projects to improve or construct public infrastructure that are located within walking distance of, and accessible to a transit facility, passenger rail station, intercity bus station, or intermodal facility and related infrastructure and TOD projects.[143] The minimum anticipated project cost for TOD projects is $10 million. There is a list of specific elements that would generally be included in a TOD Project once the DOT has determined a TOD Project is eligible. Subject to review, eligible elements could include: property acquisition; demolition of existing structures; site preparation; utilities; building foundations; walkways; pedestrian and bicycle access to a public transportation facility; construction, renovation and improvement of intercity bus and intercity rail stations and terminals; renovation and improvement of historic transportation facilities; open space; safety and security equipment and facilities; facilities that incorporate community services such as daycare or health care; a capital project for, and improving, equipment or a facility for an intermodal transfer facility or transportation mall; and construction of space for commercial uses.[144] The DOT may also fund "related infrastructure;" however, the DOT will prioritize the use of TIFIA funds for TOD projects that are significantly integrated into the related transportation facility.

Flood Mitigation Assistance Program (federal): This competitive grant program provides funding to states and localities in support of projects that seek to reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program.[145] Either the State Emergency Management Agency or the office that has primary floodplain management responsibility is eligible to apply directly to FEMA for FMA grant program funds as an applicant. Only one application is accepted from each state, tribe or territory. The maximum federal share for FMA planning sub-applications is as follows:[146]

- $200,000 for community flood mitigation advance assistance, such as project scoping
- $10 million for community flood mitigation projects
- $50,000 for Technical Assistance for states/territories who were awarded FMA grant program funds totaling at least $1 million in FY 2018
- $100,000 per applicant for mitigation planning with a maximum of $50,000 for state plans and $25,000 for local plans

Comprehensive Flood Management Grant Program (CFMGP) (state): This program promotes the development of local flood management plans, funds studies of watersheds and supports capital projects for flood control and watershed management.[147] This program provides grants to Maryland counties and municipalities after flood events to implement flood control projects, and for acquisition of flood-damaged owner-occupied dwellings. Elevations and relocations of homes are also eligible for funding. Acquired land is converted to open space in perpetuity. In recent years the program has been used primarily to fund 50% of the nonfederal share of the FEMA Hazard Mitigation Grant Program (HN4GP) funds which pay up to 75% of the cost of flood mitigation projects.[148] When federal funds do not participate in the cost of a project, the CFMGP may fund up to 75% of the cost of the project and the local share would be 25%.[149]

New Markets Tax Credit (federal): Anne Arundel County is home to several NMTC eligible census tracts, including one in Glen Burnie. The NMTC program attracts private capital into low-income communities by permitting individuals and corporate investors to receive a tax credit against their federal income tax in exchange for making qualified equity investments in specialized financial intermediaries called Community Development Entities (CDEs).[150] The credit totals 39% of the original investment amount and is claimed over a period of seven years. The CDEs then provide capital, equity investment or forgivable loans to qualified businesses within a NMTC zone.[151] Programs like NMTC not only encourage development in the area by incentivizing new business, but also support the primary mission of serving low-income communities which often experience higher levels of disinvestment from traditional capital sources.

Tax Increment Financing (local): TIF is a funding mechanism most often facilitated by the issuance of bonds to pay for up-front public infrastructure improvements within a TIF district needed to spur new development and benefit the surrounding community.[152] The incremental real property tax revenues enabled by the improved infrastructure are pledged to service the funding debt. Once the debt has been fully repaid from the incremental real property tax revenues, the county benefits from the revenue stream created from the increased assessed value of the property in and around the TIF district.[153]

Maryland Economic Development Assistance Authority and Fund (MEDAAF) (state): MEDAAF is a discretionary funding source used to attract or retain competitive business projects while also helping local governments with economic development initiatives.[154] The Maryland Department of Commerce (MDOC) administers the fund and selectively grants support to local economic development authorities or private entities.[155] Support for for-profit business projects is divided into two types of projects: (1) significant projects of statewide or regional significance, and (2) projects that provide an economic benefit to a local jurisdiction endorsing the project. This program requires a local match of at least 10% of the overall award offered by MDOC.[156] When funding is awarded, the grantee and the state enter into an agreement which details each party's contractual obligations, including capital investment and job creation commitments. Projects must be within Priority Funding Areas[157] and include eligible industry sectors.

Pilot Program for Transit-Oriented Development (Federal): Provides funding to local communities to integrate land use and transportation planning. Comprehensive planning funded through the program must examine ways to improve economic development and ridership, foster multimodal connectivity and accessibility, improve transit access for pedestrian and bicycle traffic, engage the private sector, identify infrastructure needs, and enable mixed-use development near transit stations.

Incentives – tax incentives for job creation

More Jobs for Marylanders (MJM) incentive program (state): MJM was originally designed to provide incentives for manufacturing entities locating and/or expanding in Maryland.[158] However, in 2019 the Maryland legislature expanded the program to include a broader array of industries, including retail and grocery, which locate or expand within a Federal Opportunity Zone (FOZ).[159] Incentives include refundable income tax credits, property tax credits, sales and use tax refunds, and an exemption from State Department of Assessments and Taxation (SDAT) corporate filing fees.[160] Since none of the Anne Arundel County station areas analyzed in this study are within FOZs, MJM is only currently available to qualifying manufacturing entities within the county.[161]

Maryland Job Creation Tax Credit (JCTC) Incentive (state): The JCTC is a nonrefundable income tax credit for qualified new full-time positions that are created at a new or expanded eligible facility.[162] Companies within an eligible industry that create the statutory minimum of qualified new full-time jobs paying at least 120% of the state's minimum wage may be eligible for a one-time income tax credit. This credit can be claimed in combination with the MJM credit.[163]

Incentives – property tax

Commercial Revitalization Tax Credit Program (county): This program allows taxpayers who revitalize their properties to receive a property tax credit for up to five years, equal to the incremental increase in their real property tax assessment for improvements of at least $100,000.[164] Properties must be located in one of the nine Commercial Revitalization Areas within the county and certified by the Office of Planning and Zoning as a qualified property.[165]

				Current use of incentive program?		
Incentive	Government level	Benefit	Beneficiary	Odenton	Cromwell-Glen Burnie	Laurel Racetrack
TOD Designation/Sustainable Community Program	State	Variety of Funds Grants, Loans and Investments	Developer/ Businesses	☑	☑	☐
B.U.I.L.D. Transportation Discretionary Grants	Federal	Discretionary Grant	Government Entity	☐	☐	☐
Transportation Infrastructure Finance and Innovation Act	Federal	Loan	Municipality/ Government Entity	☐	☐	☐
Flood Mitigation Assistance Program	Federal	Discretionary Grant	Municipality/ Government Entity	☐	☐	☐
Comprehensive Flood Management Grant Program	State	Discretionary Grant	Municipality/ Government Entity	☐	☐	☐
New Market Tax Credit	Federal	Capital, Equity Investment and Loans	Businesses	☐	☑	☐
TIF District	Municipality	Tax Rescheduling/ Financing	Developer/ Investor	☑	☐	☐
Maryland Economic Development Assistance Authority & Fund (MEDAAF)	State	Grant	Municipality/ Business	☐	☐	☐
More Jobs for Marylanders	State	Variety of Tax Credits	Businesses	☐	☐	☐
Maryland Job Creation Tax Credit	State	Tax Credits	Businesses	☐	☐	☐
Community Revitalization Tax Credit	County	Variety of Credits, Funds Grants, Loans and Investments	Developer/ Businesses	☑	☑	☐

Station sections: content support

Case studies of successful TOD

These TOD case studies are most relevant to Odenton, Laurel Racetrack and Cromwell-Glen Burnie, three of the higher potential and readiness stations in Anne Arundel. These case studies were used by the EY team to identify best practices for TOD, inform policy considerations and assist in estimating development density and inventory mix for a hypothetical TOD.

Potomac Shores, VA[166]

Virginia Railway Express
Commuter Rail
(VA ↔ D.C.)

Context – Ground-up, residentially oriented suburban TOD in Prince William County that is centered around an under-construction Virginia Railway Express station.

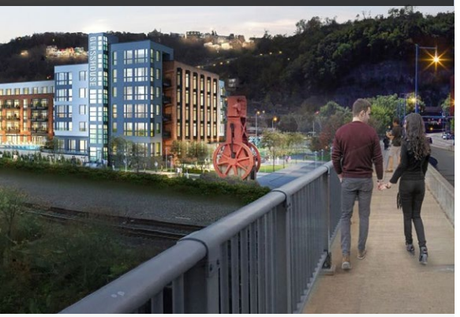
Outcome – The 1,920-acre mixed-use property development has recently sold over 1,000 of 3,800+ planned residential homes. It will include office space, golf course improvements, new schools and public sports complexes.[167]

Relevance – This station area appears most comparable to Odenton, a community hub, and includes a small-area plan with relevant design standards.[168]

Lessons learned

- The County can use targeted industry incentives to streamline the permitting and approvals process for developers and attract new employers.
- A small-area plan with specific design guidelines can align stakeholder vision and set developer expectations.
- PPPs with a single developer can help incentivize land assembly by increasing their site control.

Station Square/Allegheny County, PA[169]



Pittsburgh Light Rail
Light Rail System
(Pittsburgh ↔ Suburbs)

Context – Former industrial district across the river from downtown Pittsburgh that was rezoned and redeveloped into a mixed-use area centered around an evolving transit hub serviced by two light rail lines.

Outcome – Station Square was redeveloped as a destination mixed-use center during the 1980s/1990s, where warehouses were converted into offices, shops, music venues and hotels.[170] In 2019, 319 luxury apartments were delivered and there are currently plans to add 70,000 square feet of retail, a medical training school and ~522,000 square feet of office space.[171] [172]

Relevance – This station area is most similar to a suburban center typology and provides an example of how a light rail system can catalyze TOD, best drawing comparisons to Cromwell-Glen Burnie.

Lessons learned

- A mix of federal, state and local incentives including building grants, property abatements and/or TIFs can be stacked to fund infrastructure for TOD.
- County-organized TOD studies can set a cohesive transportation vision to establish local leading practices, prioritize investments and target policy solutions.
- To improve "last-mile" connectivity, a light rail line can be supplemented with a variety of multi-modal transit services that are well-integrated into the pedestrian and bicycle environment.

Harrison, NJ[173]

PATH Train
Rapid Transit System
(NJ ↔ NYC)

Context – Previous manufacturing district with PATH train access – includes a 250-acre planned redevelopment area that has been transformed into a mixed-use community.

Outcome – Nearly 3,000 residential units have been built in the redevelopment area since 2011, many of which qualify as affordable housing. This redevelopment increased ridership by ~23% from 2013 to 2018. Approximately 1/3 of the town's property tax revenue now comes from properties within the redevelopment area.[174]

Relevance – This station area most resembles Odenton or a community hub typology, although it is likely denser than any hypothetical TOD that could be realized in Anne Arundel County. The station's rezoning and redevelopment of industrial land is something that could also be done at BWI (MARC) and Cromwell-Glen Burnie.

Lessons learned

- Integrating open space, trails/pathways and other public amenities into TODs can create a more appealing environment and bolster residential demand.
- Industrial properties can be rezoned and redeveloped to allow a more robust use mix, increasing available land for TOD.
- Including affordable housing in new developments or requiring developers to pay development fees into a local affordable housing trust fund can mitigate gentrification-driven displacement risks.

Innovation Center, VA[175]

WMATA Silver Line
Rapid Transit Line
(VA ↔ D.C. ↔ MD)

Context – Planned WMATA station in Fairfax County, VA, next to Dulles International Airport. There are various proposed mixed-use TODs around the station.

Outcome – New development plans include: The Hub, a mixed-use development with 3.5m square feet of office, 1,265 residential units, 400,000 square feet of retail and 350 hotel keys; the Center for Innovative Technology Campus, a 3.8m square feet office site; and Innovation Center South, planned to include 1,000 residential units, 500,000 square feet of office, 190 hotel keys and 84,000 square feet of retail.[176]

Relevance – This station area appears to resemble a suburban center typology. Although proposed developments at Innovation Center may result in higher densities, its proximity to a major airport provides insights for some of the subject stations closer to BWI Airport (e.g., hotel development patterns).

Lessons learned

- PPP's with developers can help share the burden of common infrastructure costs (e.g., parking garages, roadway construction) necessary for successful TOD.
- PPP's with businesses, developers and institutions can be used to engage the community, support local interests and align stakeholder vision.
- Incorporating a robust mix of asset types (e.g., retail, office, residential) creates an environment more attractive to business owners, employers and residents.

Station sections: assumptions and methodology support

Metrics used for assessing higher relative priority barriers to TOD at each station

While there are many barriers to TOD across Anne Arundel County, five more common barriers were also evaluated on a more station-specific level. Information gathered from stakeholder interviews in congruence with the datapoints as outlined below were leveraged to qualitatively identify the relative need to address the barriers present at each station.

Barrier	Supplementary metrics for defining barrier priority
Conservation	▸ Presence of expressed community pushback against denser development ▸ Land preservation – prevalence of wetlands/floodplains from the National Wetlands Inventory that present potential development restrictions [177] ▸ Prevalence of public open space zoning[178] ▸ Anti-displacement/equity considerations as measured by the share of rent-burdened residents, median household income, poverty status and unemployment rate[179]
Financial	▸ Credit availability (e.g., prevalence of zones/districts that allow for access to benefits)[180] ▸ Public agency prioritization of stations from master plans and station studies ▸ Current regional investment in terms of assessed value of the current inventory, permit value of recent construction and total square feet of recent construction[181] [182] [183] ▸ Estimated market demand for TOD-oriented asset types; near-term market saturation from nearby new/pipeline developments; strength of retail, office, hotel and multi-family market fundamentals[184]
Infrastructure	▸ Relative need for parking garages, street improvements, adding underground utilities, new transit infrastructure, pedestrian safety improvements, station renovations, last-mile improvements, etc. ▸ Strategic insights from previous station-relevant TOD studies and EY US industry experience
Land availability	▸ Prevalence of vacant or re-developable land and government-owned land[185] ▸ Parcel ownership fragmentation or limited single party control ▸ Size and street frontage of developable parcels
Zoning and planning	▸ Presence of TOD encouraging and flexible, transit-oriented zoning and small-area plans[186] ▸ Ability of current zoning to set a defined vision and reduce future uncertainty (proposed zoning changes can cause short term uncertainty) ▸ Existence of developer site plans

Not included in the station summaries but considered on a county/state-level were barriers including: the permitting and approvals process (e.g., onerous regulatory rules and guidelines delaying timelines and approvals); state and local government alignment (e.g., lack of coordination or policies and priorities at cross-purposes); shared vision (e.g., lack of alignment from the local community, employers, property owners, developers and governing bodies); and capacity (e.g., ability and bandwidth to implement).

Sources used for estimating hypothetical TOD density and inventory mix

The estimated density of new development at each station was calculated by taking a weighted average of densities from the components as enumerated below, while the inventory mix was determined by qualitatively assessing these same sources and cross-referencing them with stakeholder commentary regarding market demand and community needs for particular asset types.

1. As-is station area environment

Average density of current residential (DU/acre) and commercial inventory (FAR) within an 0.5-mile radius of the station[187]

2. Recent construction trends

Average density and relative mix of recent residential (DU/acre) and commercial developments (FAR) within an 0.5-mile radius of the station[188] [189]

3. Case study comparisons

Planned density and mix targets from small area plans and station area zoning weighted by selected case study relevance[190] [191] [192]

4. General planning targets from TOD literature

Leveraged a weighted average of suggested densities and use mixes from the following sources:

- Weighted density and mix targets from general planning literature on place types[193]

Qualitatively cross-checked suggested densities and use mixes with adjusted estimates from key station specific literature

- 2016 Odenton Town Center Master Plan[194]

5. Existing site plans

Extrapolated density targets and mix compositions from concept plans, site plans or planned future developments

- Odenton – MDOT provided Odenton Station Area Concept Plan
- Cromwell-Glen Burnie – MDOT provided Preliminary Glen Burnie TOD Analysis
- Laurel Racetrack (MARC) – 2019 Laurel Park Concept Development Plan and the Paddock Pointe Site Plan [195] [196]

6. Adjustments to density based on inventory mix

- Adjusted density of development to reflect suggested unit composition (e.g., if there was a higher relative share of single-family housing relative to multi-family, residential density levels were adjusted downward)[197] [198] [199] [200] [201]
- Adjusted mix components to reflect strategic targeting of demographic groups (e.g., higher share of multi-family to attract millennial tenants)

Economic impact analysis assumptions

The reader should be aware of the following assumptions when interpreting the economic impact results:

- The direct economic impacts presented in this study reflect the work location. These are jobs that will be based in Anne Arundel County and could be filled by residents or nonresidents. In addition to Anne Arundel County, direct jobs at Laurel Park will also be based in Howard County.
- Indirect economic impacts were estimated based on relationships in the IMPLAN input-output model, which describe the mix of locally supplied goods and services, by industry, based on historical purchasing relationships. The IMPLAN industry models were chosen to most closely resemble the mix of activities related to the planned capital expenditures and development operations.
- The economic impacts presented in this report quantify the economic activity supported by the construction and operation of each hypothetical development. In some cases, the indirect and induced jobs may not be new to the County but are temporarily supported by the development.
- This analysis does not quantify any potential positive or negative externalities as a result of the development's construction or operations.

Endnotes

Cover image source: Maryland Transit Administration

Executive summary

1 PPPs are partnerships between the public and private entities with a common goal and are not limited by size.

2 Maryland Transit Administration

A closer look at TOD

3 Maryland Transit Administration

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TOD in Anne Arundel County — barriers and equity

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Hypothetical TOD

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130 The hypothetical development at Laurel Racetrack includes 1,450–1,800 residential units, 380,000–460,000 square feet of office space, and 160,000–200,000 square feet of retail space, including a clubhouse at the racetrack.

Appendix

131 The Readiness Index considers 85 quantitative metrics and ultimately generates an overall composite score for each station that allows for comparison across each of these categories. The results were validated through sensitivity analyses based on the factor weights applied to the robust data set.

132 In this analysis, station area jobs are defined as jobs that lie within a 1-mile walking radius of a station. Origin workers are defined as workers living within a 1-mile walking radius of a station.

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ED None

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