

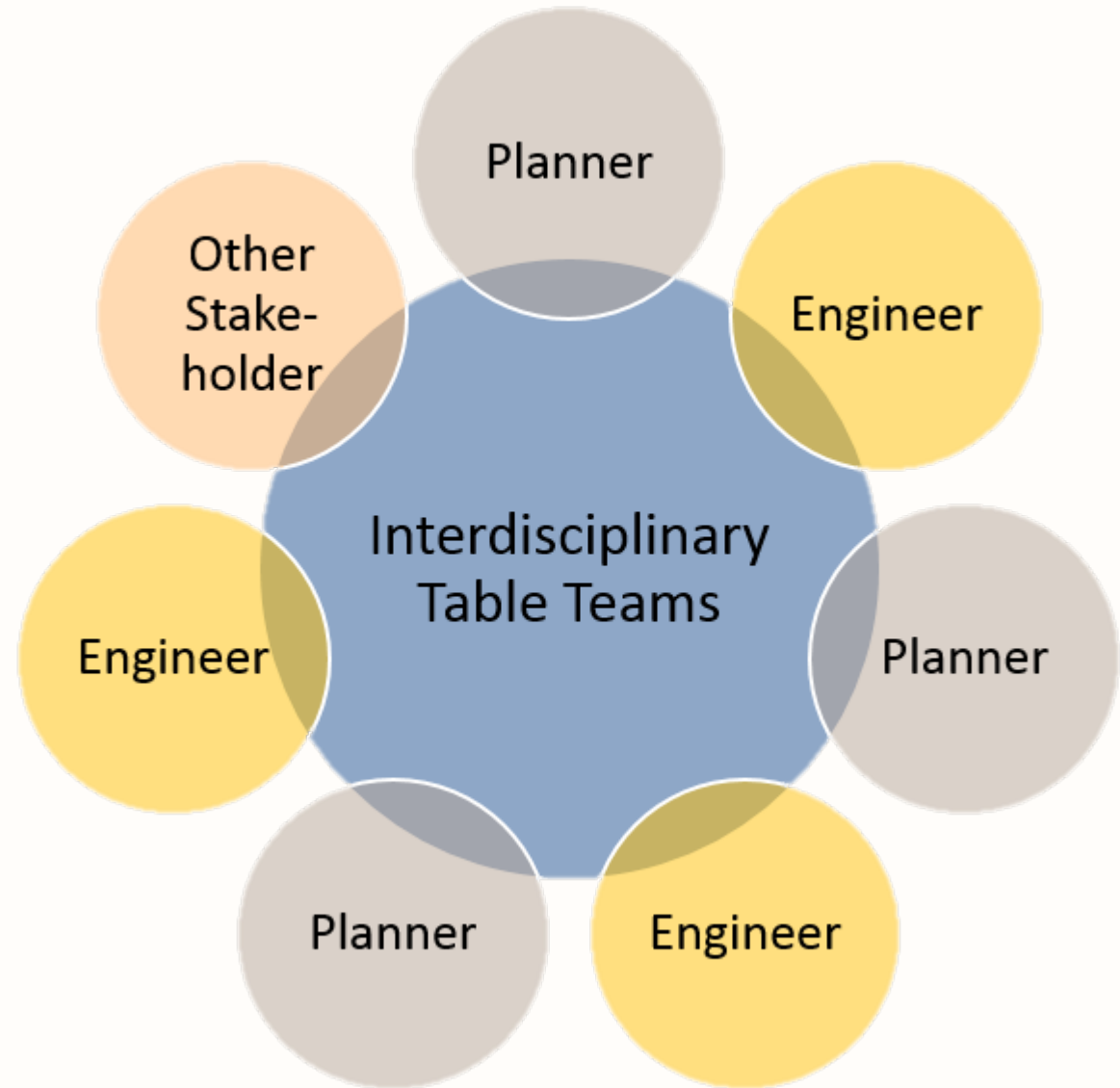
# Planning & Engineering 360°



# Introduction to Planning & Engineering 360°

# Planning & Engineering Table Teams

Meet your  
table team  
members!



# Secretary Richards' Executive Session Address

***“State DOTs are no longer just held accountable for the transportation system; they are also held accountable for how the system supports and improves quality of life for communities.”***

Transportation Research Board, National Cooperative Highway Research Program (NCHRP) Report 798: The Role of Planning in a 21st Century State Department of Transportation—Supporting Strategic Decisionmaking, 3/23/2016

# Planning & Engineering Collaboration

## Community Development

Vision, Values and Aspirations

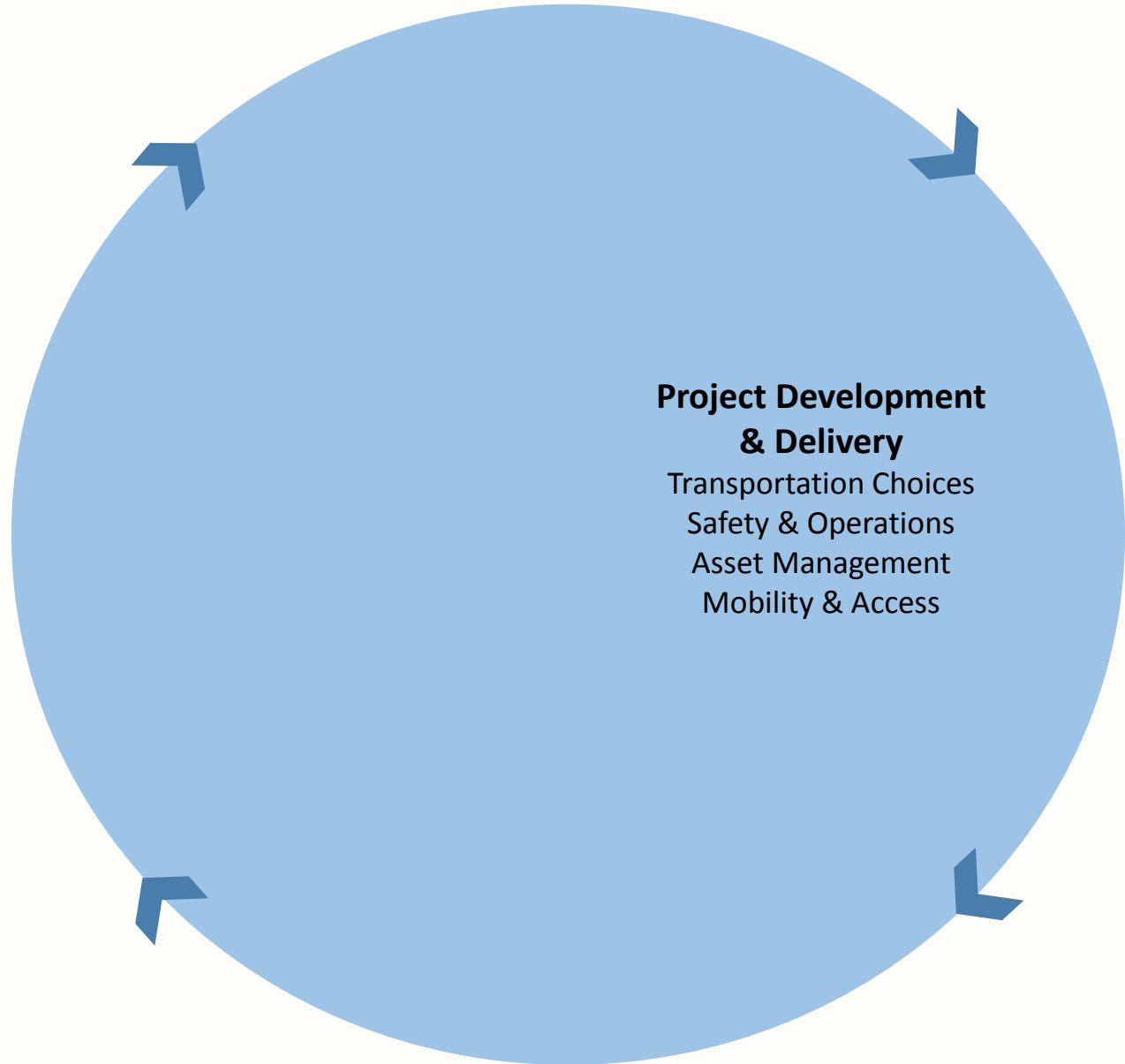
Quality of Life & Livability

Sense of Place & History

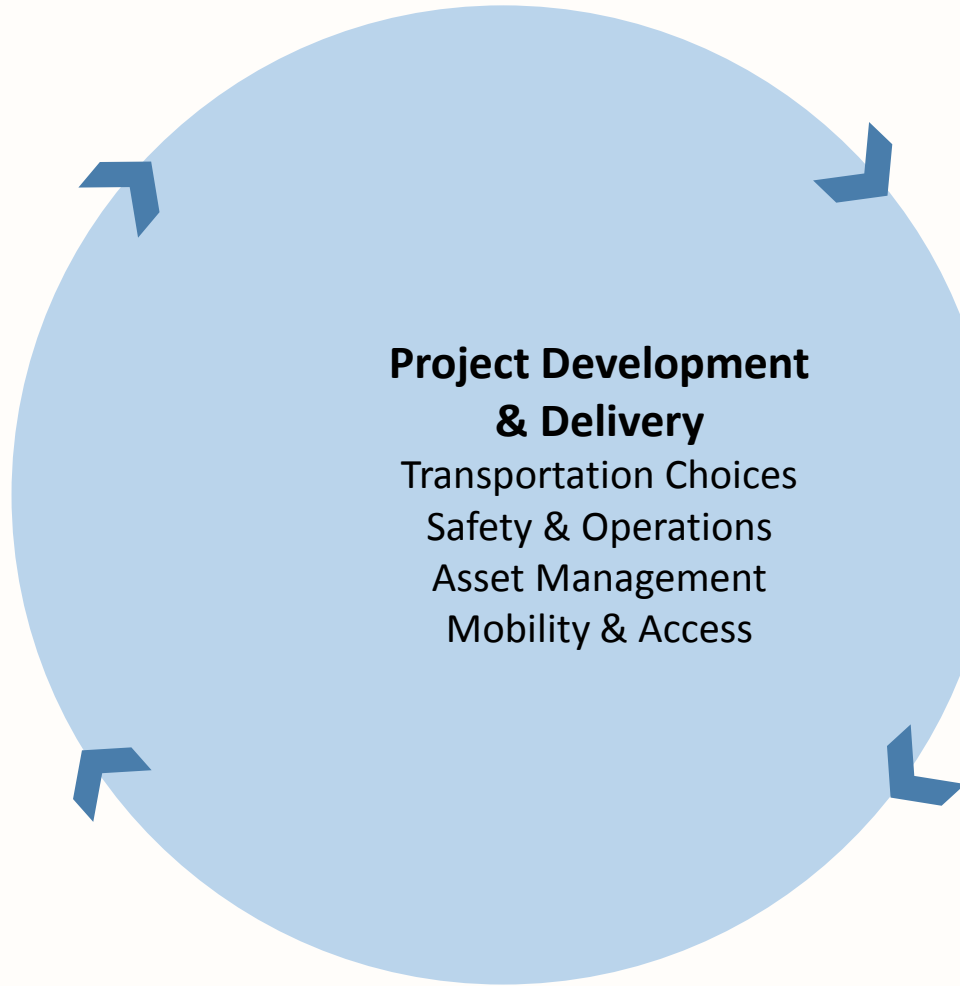
Community Vitality

Land Use

# Planning & Engineering Collaboration



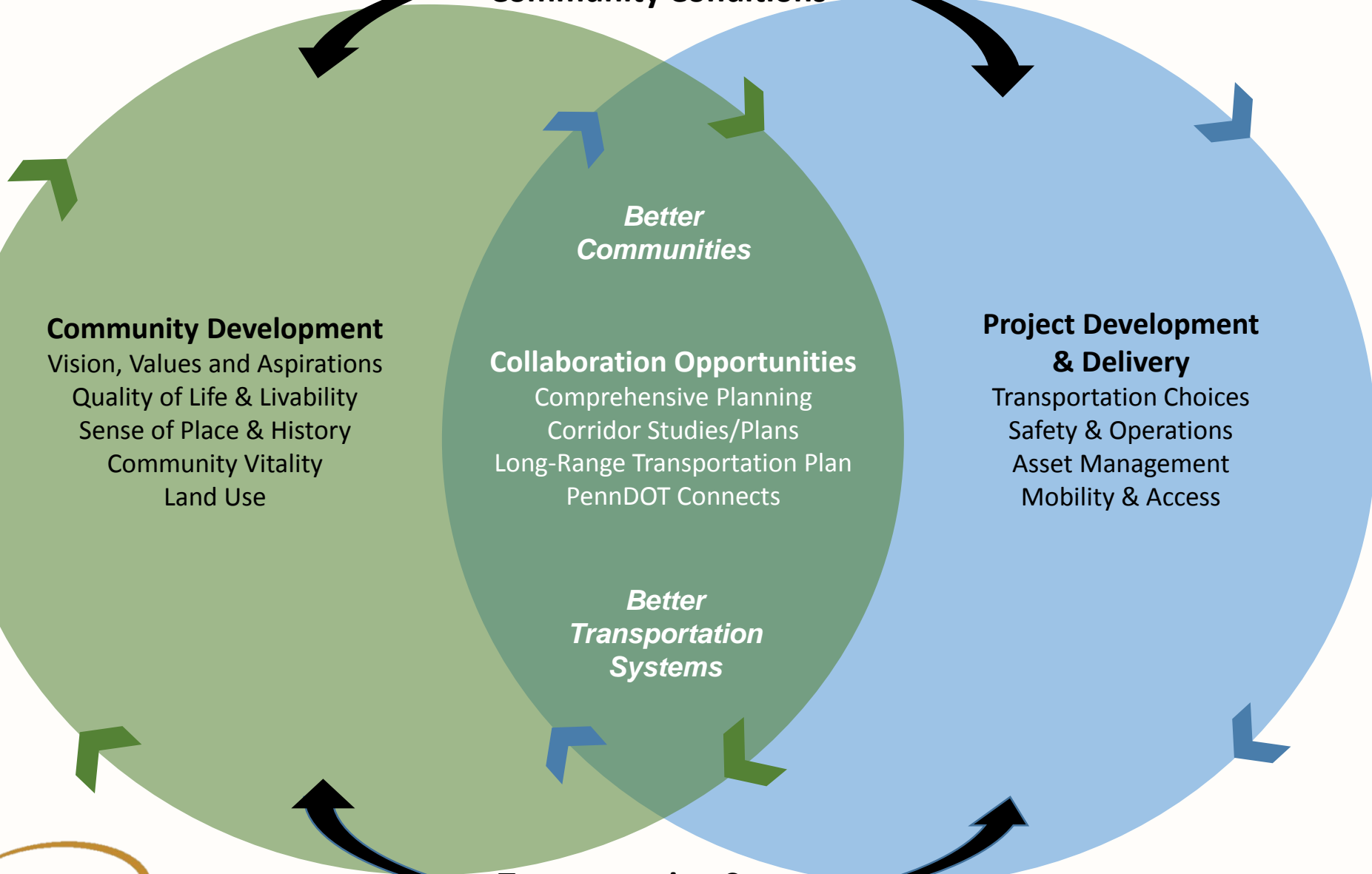
# Planning & Engineering Collaboration





# Planning & Engineering Collaboration

Community Conditions



Transportation System

Performance

# Negative Impacts of Working in Silos

In your table teams, list the negative impacts or consequences of community or project development carried out in isolation.



# Integration Outcomes

In your table teams, write or draw the outcomes of collaboration on the flip chart paper provided.



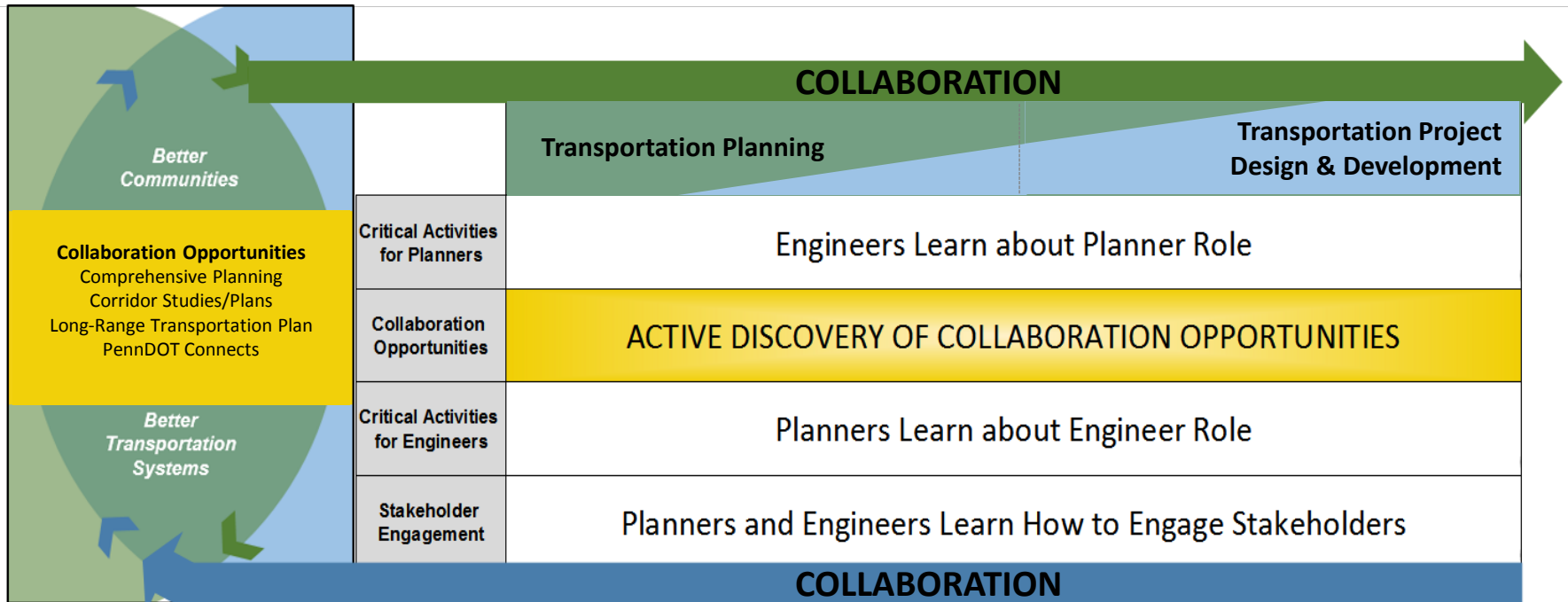
# Collaboration Outcomes

In your table teams, write or draw the outcomes of collaboration on the flip chart paper provided.

- How are your projects better?
- How are communities better?
- How is your job supporting community quality of life?



# Course Overview



**Module 1:  
The Value of  
Planning**

**Module 2:  
Program Development  
(Pre-TIP)**

**Module 3:  
Project Delivery  
(Post-TIP)**

Problem Assessment  
 Proposal Identification  
 Proposal Evaluation  
 Project Addition to TIP

# What is Planning?

- Financial planning
- Retirement planning
- Business planning
- Career planning
- Game planning—sports
- Battle planning—armed forces
- Master Plan—colleges and universities
- Wedding planning



## Why?

To identify desired futures and how to get there.

# Planning & Engineering 360°

## Module 1: The Value of Planning



# Module 1 Agenda

## Understanding Community Planning

- Identifying Community Attributes and Values
- Identifying Community Priorities
- What is Community Planning?
- Who is Involved in Community Planning?
- Community Planning Activities
- Seven Primary Community Planning Tools

## Understanding Comprehensive Plans

- The Three Types of Comprehensive Plans
- The Elements of a Comprehensive Plan
- What is the Relevance of Comprehensive Plans?

## Community Planning and PennDOT

- Community Planning and You
- Wrap-up and Next Steps



# Pick a Community...Any Community



# Understanding Community Planning

Activity



**What are your community's attributes?**

Your community's name:

Your community's attributes:

# Community Values and Priorities

## RURAL

### Values:

- Protection of the natural resources and farmland
- Clean water and air
- Access to education, healthcare, shopping, etc.

## SUBURBAN

### Values:

- Economic well-being; generating revenue
- Access to education, healthcare, shopping, etc.
- Community gathering opportunities

## URBAN

### Values:

- Quality of place (clean, not in disrepair, etc.)
- Maintaining historical integrity
- Having a walkable city

## PRIORITIES FOR ACTION

- Affordable housing
- Public safety
- Mobility
- Recreation
- Jobs
- Quality of life
- Tourism
- Tax base
- Infrastructure management
- Environment

# Understanding Community Planning

Activity



**What are your community's values and priorities?**

COMMUNITY TYPE:

Values and Priorities

# Understanding Community Planning

## Definition

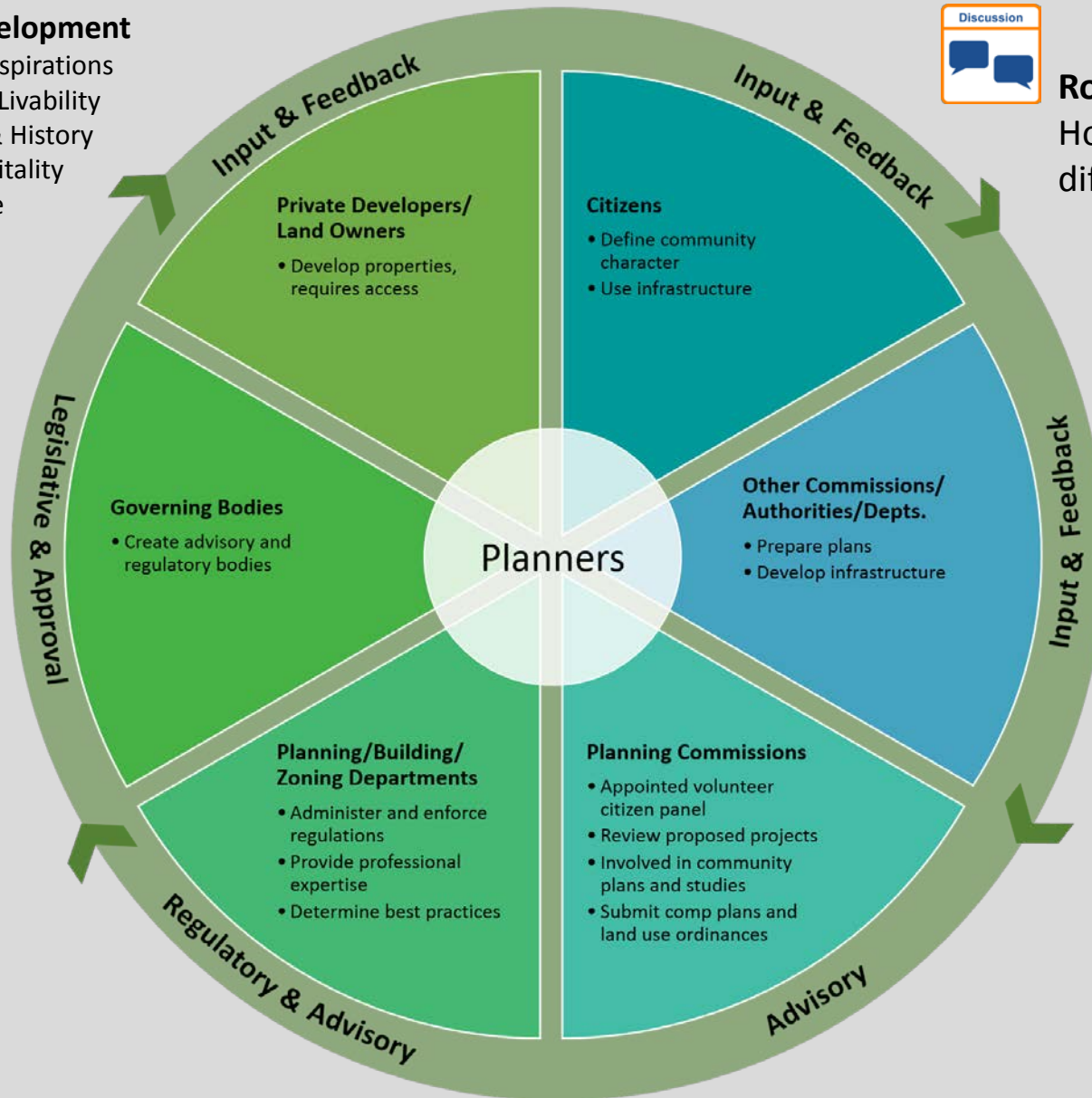


**Community planning** is the management of physical and social systems to solve problems in ways that align with community values. Examples might be to protect important features, and strengthen conditions by local governments for public health (water/sewer, recreation), public safety (emergency services, building codes, traffic control), and public welfare (land for business/industry).

# Who Is Involved in Community Planning?

## Community Development

Vision, Values & Aspirations  
 Quality of Life & Livability  
 Sense of Place & History  
 Community Vitality  
 Land Use



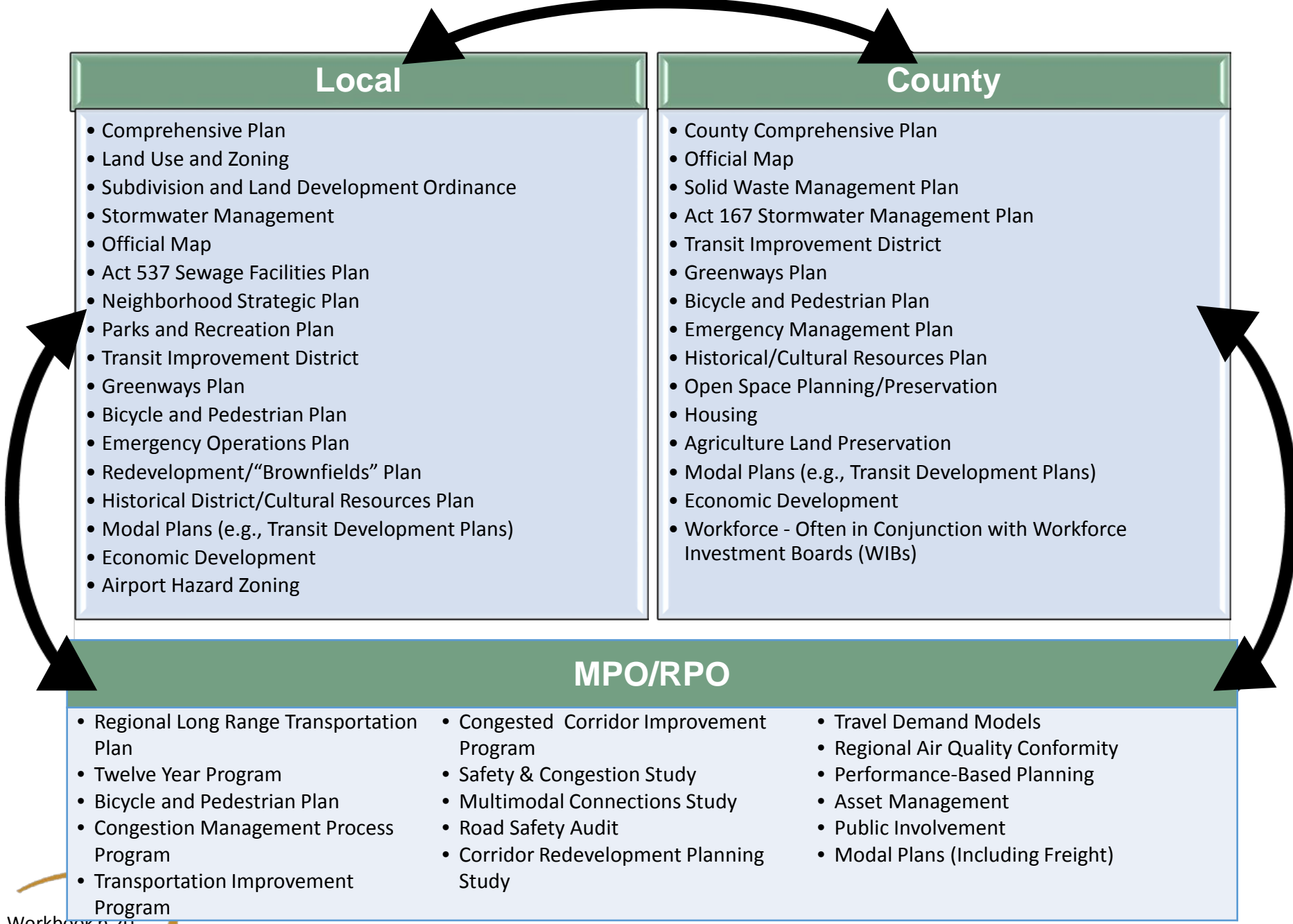
## Roles:

How does this vary in different communities?

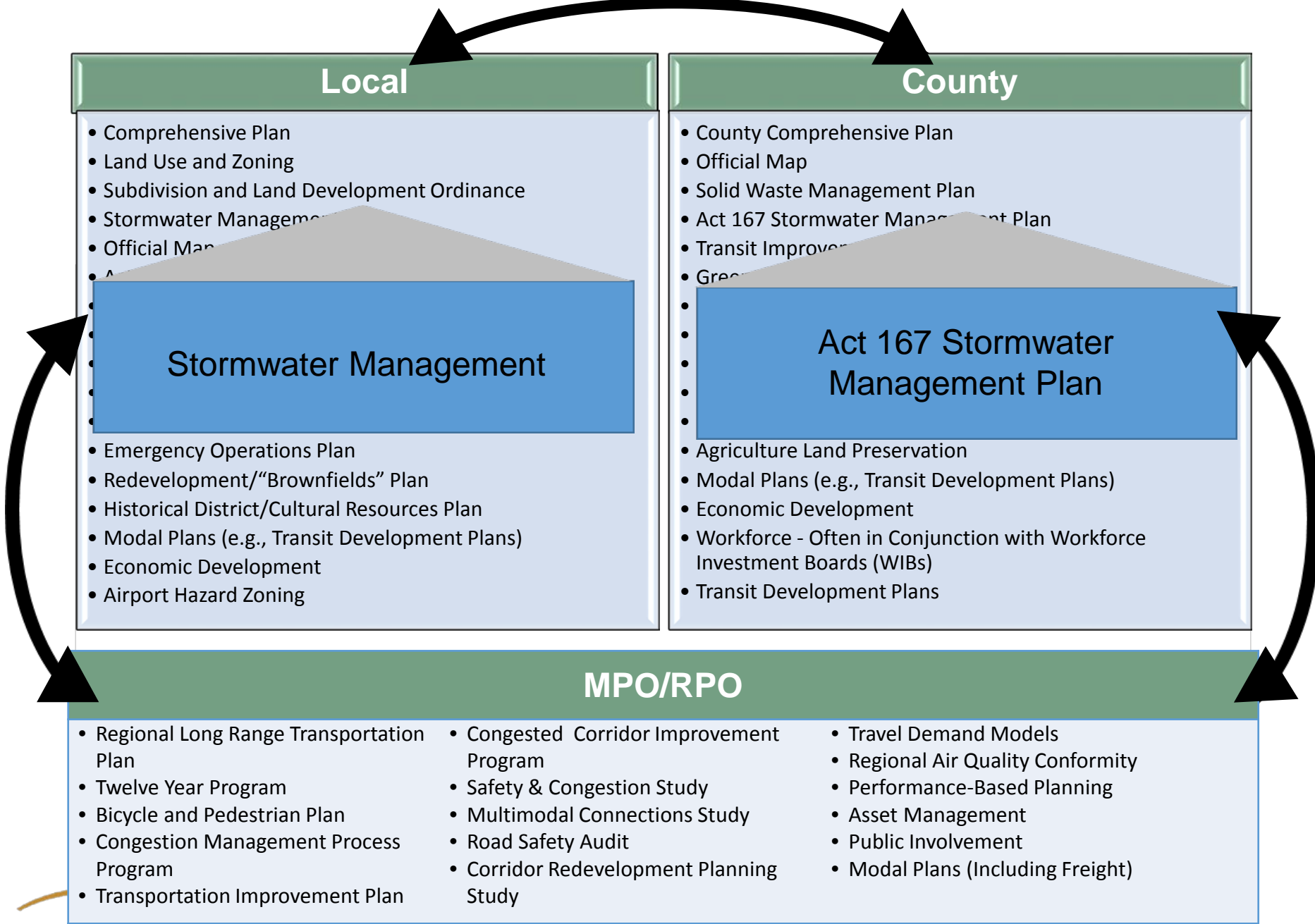
# Community Planning Activities

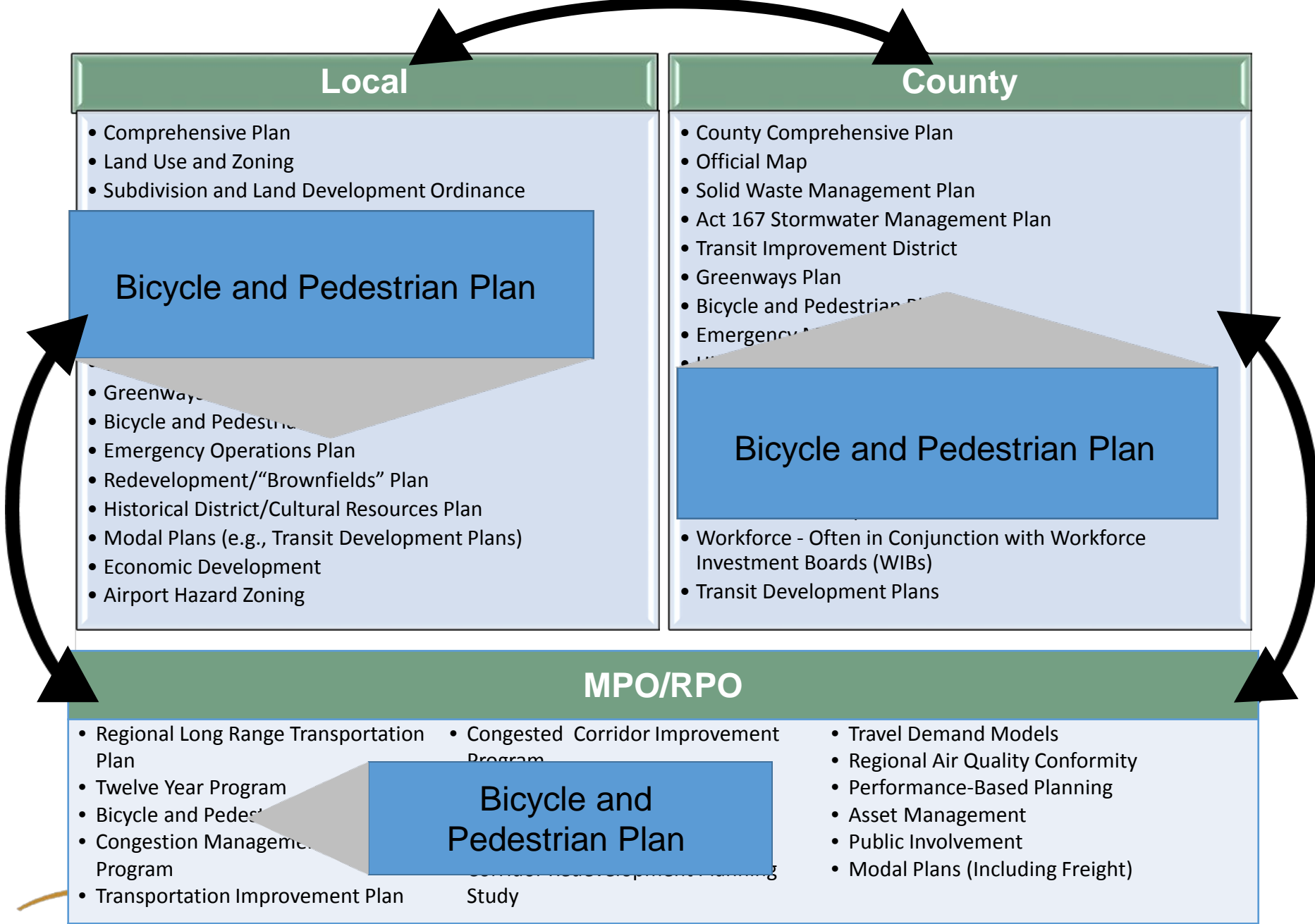
- Long-range planning
- Functional planning
- Project or service planning

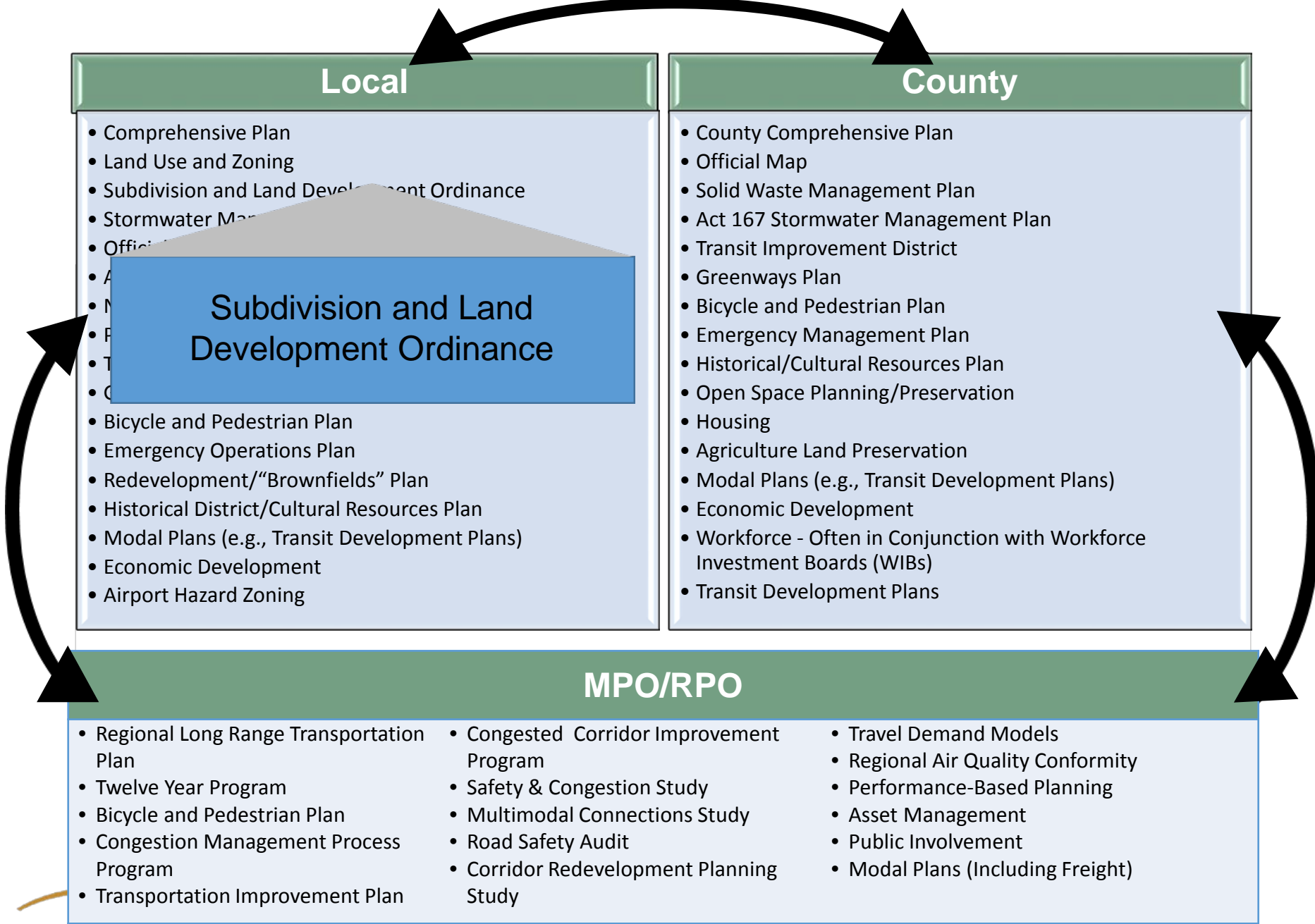


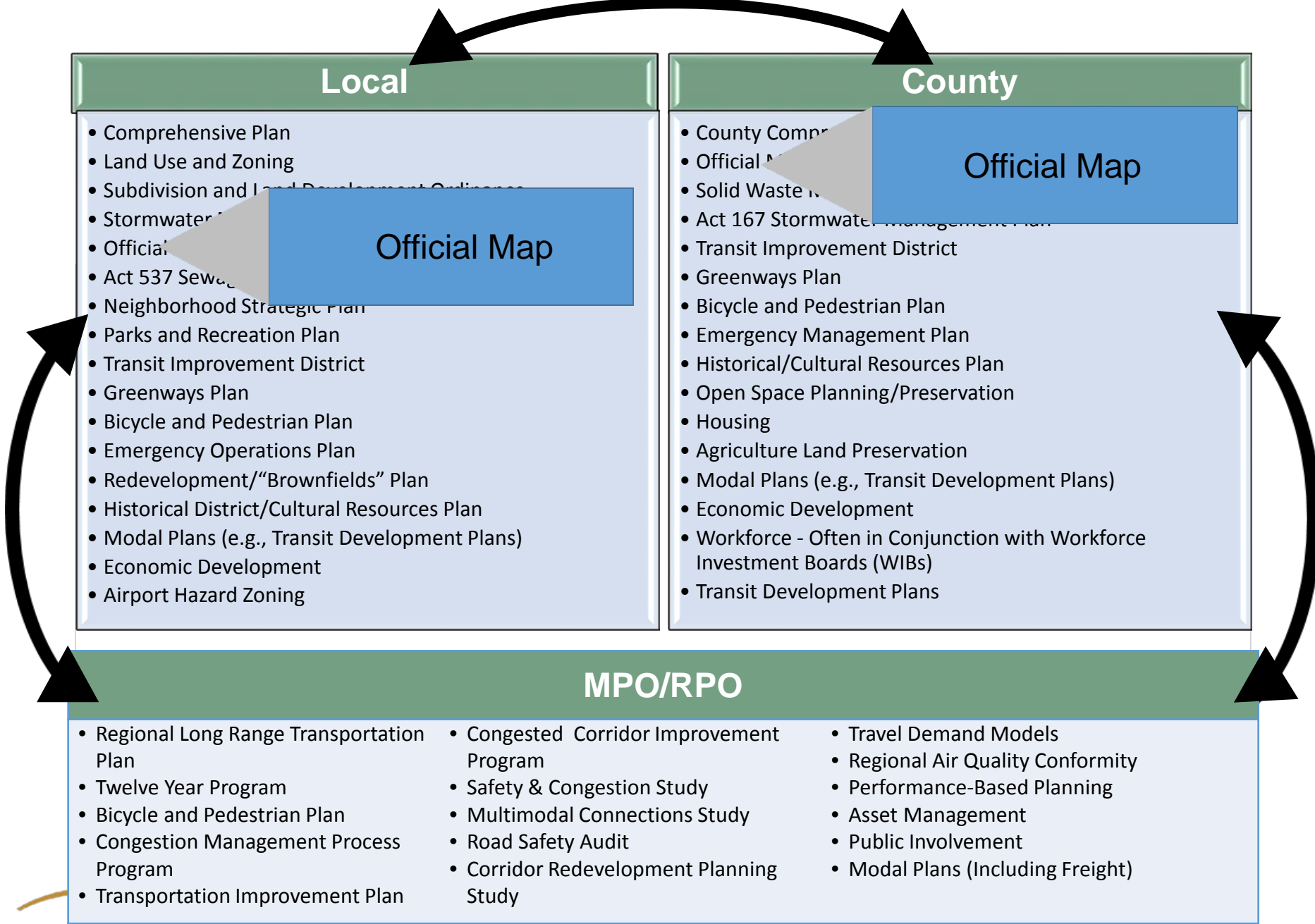


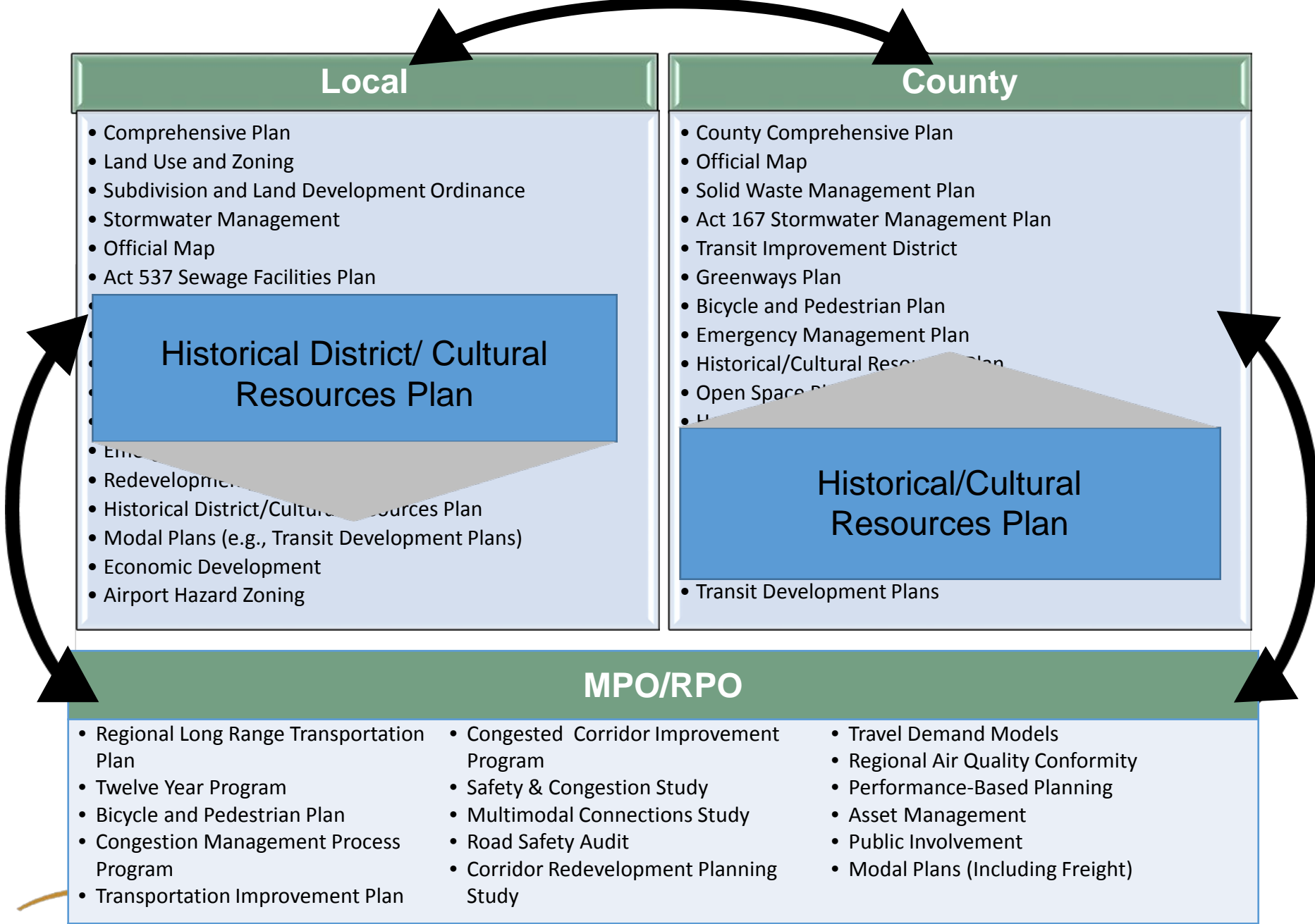


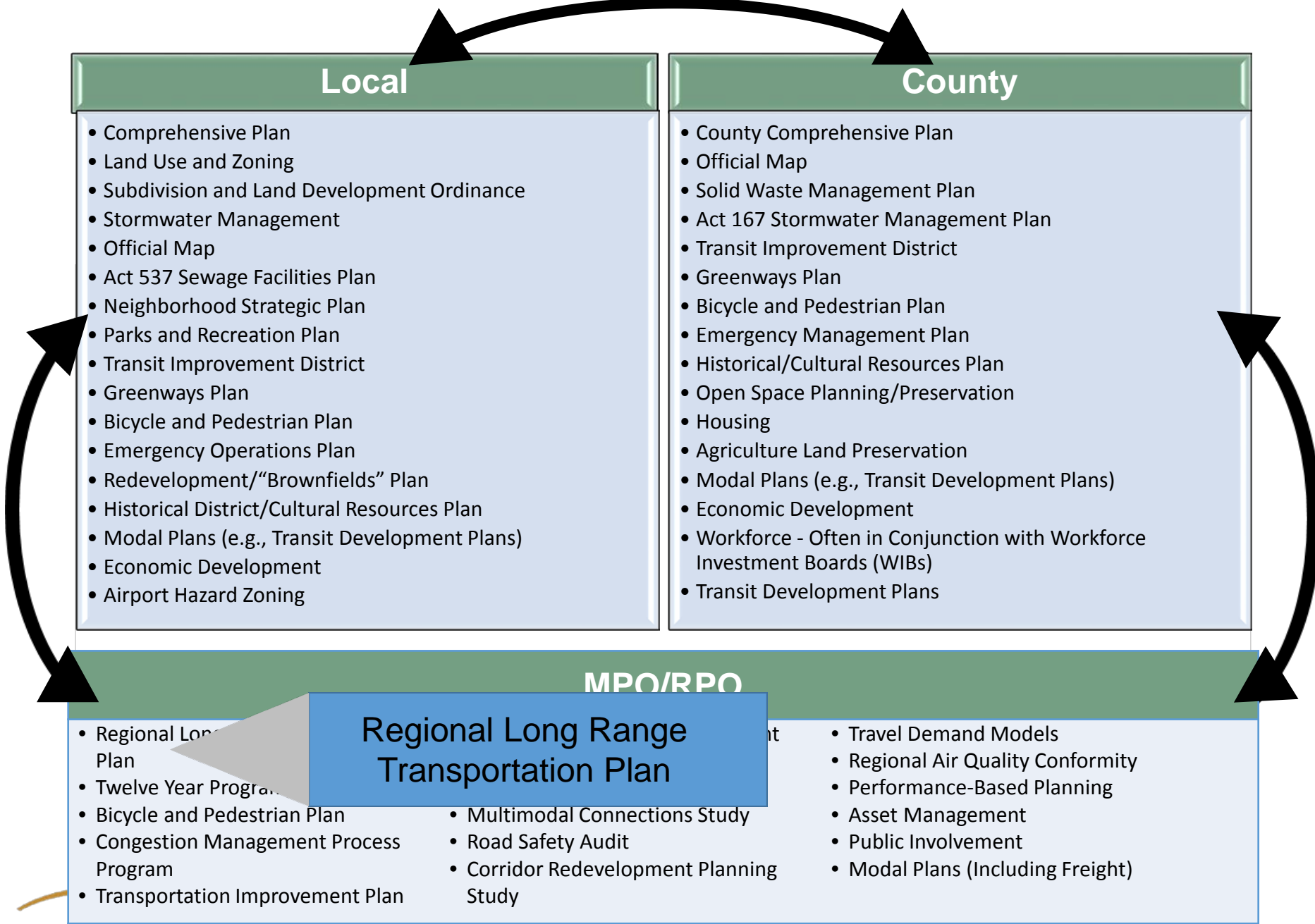












# Primary Community Planning Tools

Activity



**How do these tools reflect a community's values and priorities?**

In your table teams, consider the impact of just one of these tools, the zoning map provided. Considering your team's community from our earlier activity, how compatible is the zoning with the community's priorities.

# Understanding Comprehensive Plans

## Definition



A **comprehensive plan** is a guide for the future development of the municipality. It's an official statement about the governing body's future planning goals that shows how all the pieces of the community should work together. It can be used as a tool that guides policy changes and helps to evaluate future projects.



# Three Types of Comprehensive Plans

## County

- Required
- Must be updated every 10 years
- Broad perspective

## Municipal

- Voluntary
- Single city, borough or township

## Multi-Municipal

- Voluntary
- More than one contiguous municipality

*Source: Pennsylvania Municipal Planning Education Institute*

# Understanding Comprehensive Plans

Discussion



What has been your experience working with different plans?

# Elements of a Comprehensive Plan

## Land Use (& Related)

- Existing development and conservation (open space lands)
- Future/planned development and conservation
- Natural resource protection
- Farmland preservation, historic resource preservation

## Housing

- Condition of housing stock
- Affordable housing options
- Neighborhood character and amenities

## Economy

- Jobs (inbound and outbound commuters)
- Workforce education
- Goods movement

## Facilities & Utilities

- Police, fire protection and emergency medical service
- Educational and medical facilities
- Parks and recreation
- Public water, public sewer

# Elements of a Comprehensive Plan

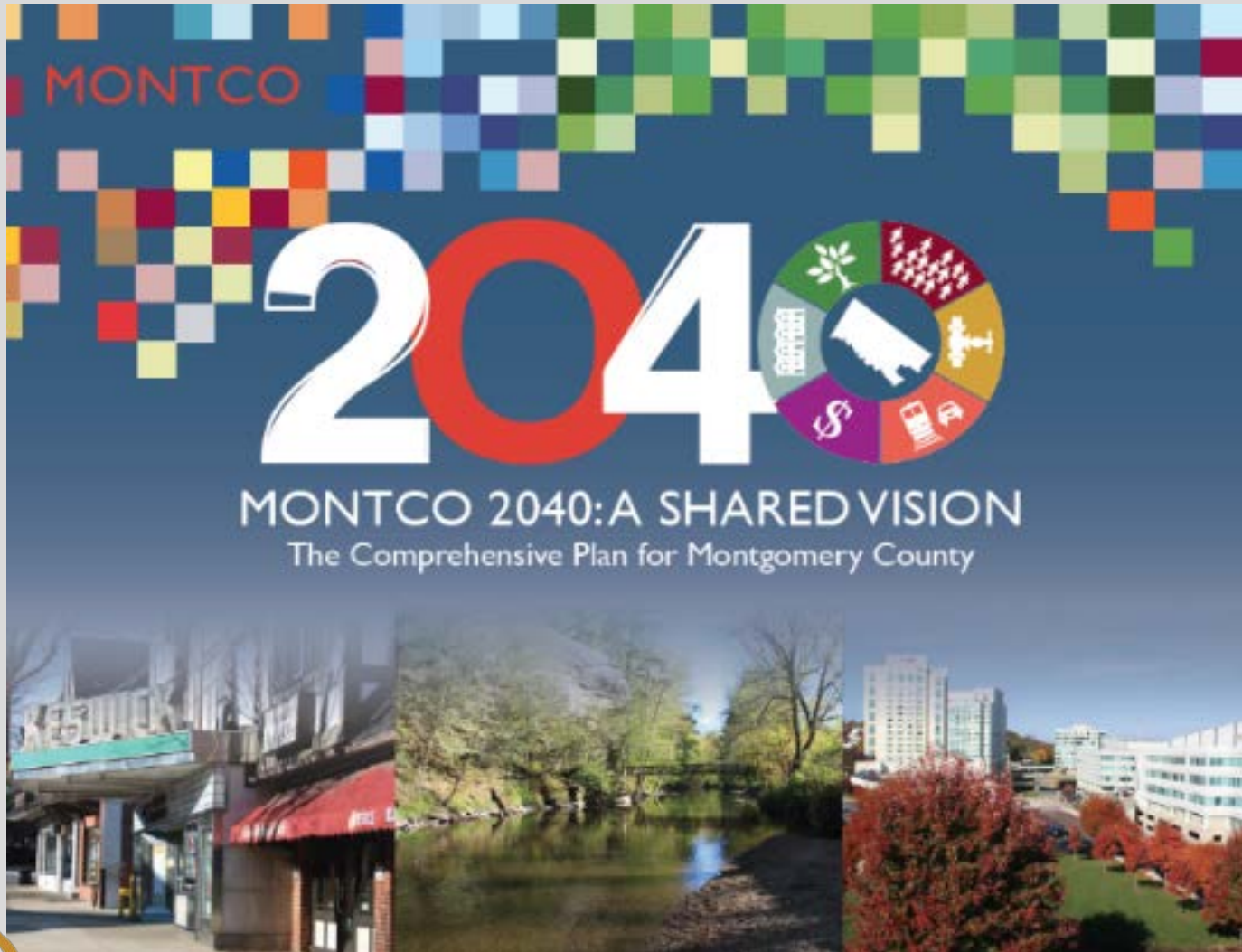
Discussion



**How does transportation cross all these comprehensive plan elements?**

How do they relate to mobility and transportation planning?

# Plan Example



# Plan Example

## THEMES AND GOALS

### CONNECTED COMMUNITIES

**GOAL** Encourage collaboration and partnerships among governments, businesses, institutions, schools, higher education, and other stakeholders

#### Why this goal is important:

- With 62 municipalities and 22 active school districts, local cooperation is critical.
- Issues are complex and funding often limited, which makes public private partnerships essential.
- Montgomery County is inextricably linked to Philadelphia and its other neighboring counties.



#### How this goal will be implemented:

- Through participation in multi-jurisdictional and regional organizations.
- By expanding multi-municipal planning and other cooperation efforts.
- With preparation and promotion of model ordinances, advisory guidelines, and stormwater standards for more consistent regulations.

**GOAL** Improve transportation quality and expand options for county residents and workers ★

#### Why this goal is important:

- Many residents and workers, particularly younger ones, want options other than cars to get to work.
- Only 8.1% of county residents walk, bicycle, or take public transit to work.
- 83% of county residents are in less walkable areas.



#### How this goal will be implemented:

- By working with others to improve road connectivity, expand Intelligent Transportation Systems, and eliminate road bottlenecks. ★
- By working with transit providers to extend service, increase frequency, improve access, and encourage transit oriented development.
- With advocacy for more sidewalks and pedestrian design of developments. ★
- Through cooperation with others to add bike-friendly improvements to roads. ★
- Through collaboration to improve travel demand management.

# Plan Example

## CONNECTED COMMUNITIES

Collaboration among Stakeholders

### Improved Transportation Choices

Connected Trails and Greenways

Strong Downtowns and Destinations



## IMPROVE TRANSPORTATION QUALITY AND EXPAND OPTIONS FOR COUNTY RESIDENTS AND WORKERS

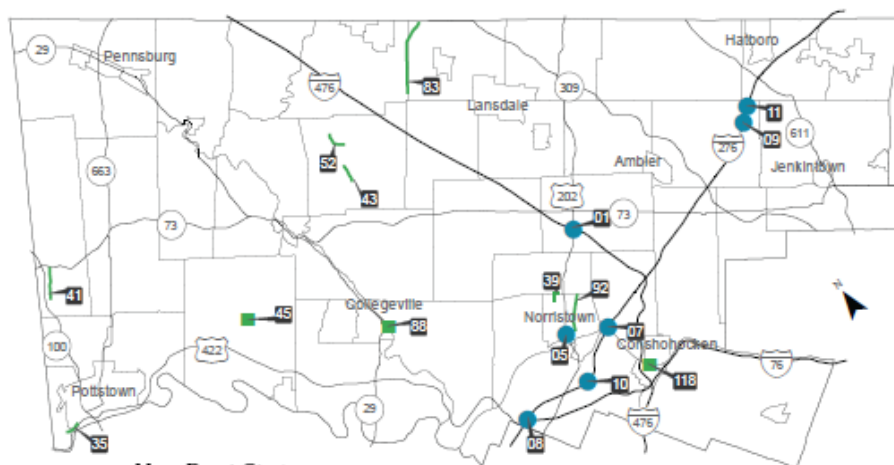
The county's transportation system connects people and places to each other and offers a variety of transportation choices for county residents and workers. To improve and expand these transportation options, the county will...

...work with PennDOT and local municipalities to improve road connectivity, expand Intelligent Transportation Systems, and eliminate road bottlenecks

Having an interconnected, finely-grained road network with many choices reduces congestion and provides alternative routes around accidents or other incidents. The Lafayette Street extension, for example, will do this.

The county already has an extensive network, and the vast majority of future road projects will improve intersections, repair roads, install Intelligent Transportation Systems, and widen roads, where appropriate. In addition, the county will advocate for new highway interchanges, roads, and bridges where more options are needed. *(All transportation projects, whether providing a new road choice or not, are described in the final Vision chapter.)*

### NEW ROAD CHOICES



#### New Road Choices

- New or Expanded Interchange
- New Road, Bridge, or Direction of Traffic

*Numbers refer to the project list in the transportation section of the Vision Chapter*

### Measuring success

- Average commuting time improves or stays the same
- Increase in linked signal systems and miles of fiber optic cable for Intelligent Transportation Systems
- More commuters live in the municipality where they work

# Plan Example

## ...cooperate with PennDOT, bicycling organizations, and local municipalities to add bike-friendly improvements to roads and bike facilities to developments

Bicycling on local roads can be difficult. Ideally, roads should have separate, marked bike lanes. Paved shoulders, especially when striped, offer some protection for on-road cyclists, and wider travel lanes next to curbs can be helpful. These facilities should be added to the primary and secondary bicycle routes identified on the map below. In addition, PennDOT should maintain bicycle lanes on PennDOT roads, local municipalities should consider bike sharing programs, and SEPTA should improve bike storage and access at its train stations.

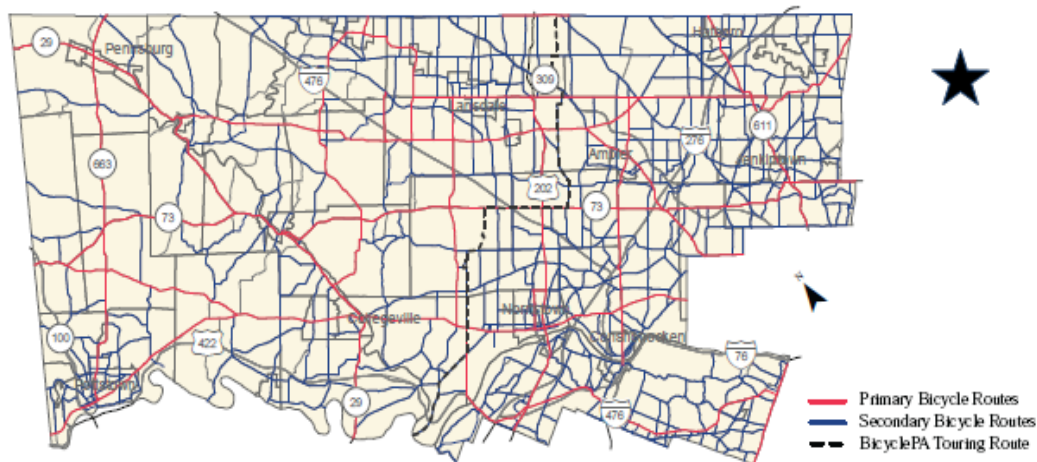
Road diets, as proposed on Virginia Drive in Upper Dublin, First Avenue in Upper Merion, and Washington Lane in Cheltenham, provide a great opportunity to accommodate bicyclists within the existing cartway.

## ...collaborate with businesses, transportation management associations, chambers of commerce, and others to improve travel demand management

Traffic congestion can be reduced in more ways than physically improving roads. This is called Travel Demand Management, which give workers more flexibility and choice in getting to work. This approach encourages behavioral changes by commuters through telecommuting, compressed work weeks, flex time, car sharing, and carpooling. Building park and ride lots, using high occupancy vehicle lanes, and congestion pricing on toll roads support these changes. Commuters can also be encouraged to take public transit, bicycle, or walk to work.

The county will work with its two transportation management associations, the Greater Valley Forge TMA, which covers the half of the county nearest Chester County, and the Partnership TMA, which covers the half closest to Bucks County, to implement effective Travel Demand Management throughout the county.

### BICYCLE ROUTES



### Measuring success

- Increase of bike lanes in the county
- Percent of people commuting by biking
- Reduction in bicycle/vehicle accidents

### Measuring success

- Average commuting time does not increase
- Percent of people working from home
- Increase in employers using shuttle services and transit commuter benefit programs, such as Ride Eco



# Plan Example

## SUSTAINABLE PLACES

### Modernized Infrastructure Network

Improved Stormwater Management

Conserved Natural Resources

Opportunities for Healthy Lifestyles

Diverse Housing Choices

Enhanced Community Character



## SUPPORT A MODERN, RESILIENT, GREEN, AND ENERGY-EFFICIENT INFRASTRUCTURE NETWORK



Infrastructure, including roads, bridges, sewers, water, power, and communications, is the backbone of land use and economic development. It's often taken for granted that it will function well; however, many parts of the infrastructure system are aging and will need to be modernized. In addition, climate change is putting pressure on the infrastructure network, highlighting the need to keep this network resilient. To improve infrastructure, the county will...

### ...improve county-owned roads and bridges

Montgomery County owns 74 miles of roadways and 133 bridges, 106 of which have spans of 20 feet or more. The county will be conducting an extensive modernization of its system of roads and bridges.

The county will develop a program and schedule for road repaving and rehabilitation. Ridge Pike in Plymouth is currently a priority for rehabilitation. Portions of Ridge Pike, Butler Pike, Bergey Road, East Summeytown Pike, Schultz Road, Horsham Road, Plymouth Road, and Old Summeytown Pike are priorities for repaving. The county transportation authority will take the lead on purchasing land when it is needed for road and bridge improvements.

### Measuring success

- Number of repaired county bridges
- Miles of resurfaced or rebuilt county roadways

### THE COUNTY HAS CREATED A CAPITAL IMPROVEMENT PLAN FOR BRIDGES.

**Top Candidates for Bridge Replacement** - these bridges will need to be replaced and include Arcola Road, Knight Road, Lutheran Road, Bergeys Mill Road, Morris Avenue, Rostowski Road, Moyer Road, Davis Grove Road, Paper Mill Road, Moreland Avenue, Butler Pike, Stump Road, Swamp Pike, Easton Road, Sterigere Street, and Ridge Pike bridges.

**Top Candidates for Bridge Rehabilitation** - these bridges do not need replacement but will need rehabilitation. They include Old Gravel Pike, Dietz Mill Road, Simmons Road, Black Rock Road, King Road, Conshohocken State Road, Peevy Road, Old Reading Pike, Line Lexington Road, Green Lane Road, Deep Creek Road, Summeytown Pike, Germantown Pike, Old Summeytown Pike, Ashmead Road, Old Gulph Road, Ashbourne Road, and Mount Pleasant Avenue bridges.

**Candidates for Bridge Rehabilitation or Replacement** - these historic stone arch masonry bridges or steel truss bridges have enough historic significance to be studied to see if they can be rehabilitated. If rehabilitation is not feasible, they will need to be replaced. This category includes Fetters Mill Road, Washington Lane, Valley Green Road, Swedesford Road, Price Road, Keller Creamery Road, Faust Road, Keith Valley Road, Keim Street, Garges Road, Trumbauer Road, Fruitville Road, and Mingo Road bridges.

**Candidates for Elimination or Turnover** - Because of traffic volumes, significance, or other factors, some bridges should be demolished or turned over to other government entities or private property owners. These include Camp Wawa Road, Snyder Road, and Hedrick Road bridges for elimination. Fern Avenue, Old Gravel Pike, Rupert Road, and McLean Station Road bridges should be turned over to other entities.

# Plan Example

## ALLENTOWN 2020

### TRANSPORTATION

In order to foster this movement, pedestrian and bicycle travel need to be safe and convenient. Although the City has not undertaken any comprehensive studies with respect to these modes of travel, the Lehigh Valley Planning Commission recently completed a safety evaluation throughout the two county area. Clusters of crashes involving pedestrians and motorists occurred along the 7th Street corridor from Washington to Union Streets and on Tilghman Street between 4th and 12th Streets. The installation of new and repair of existing sidewalks; the construction of sidewalk extensions or "curb bulb-outs" at high traffic intersections; the installation of crosswalks at busy intersections; and efforts at traffic calming are measures that improve the pedestrian experience and pedestrian safety. The City currently requires that sidewalks be installed in all new developments and routinely inspects the condition of existing sidewalks to determine the need for repair.



The data regarding bicycle/motorist crashes is less discerning on a regional level, however, 7th and Tilghman Streets was identified as one area that showed some clustering of crashes. Improvements to the bicycling experience, particularly for on-street travel, is more complicated, with less

consensus among professionals. Education in understanding and following pedestrian and bicycling laws is one key area of agreement, however. Recommendations contained elsewhere in this Plan which call for the pursuit of a comprehensive trail network throughout the City will go a long way toward accommodating off-road pedestrian and biking needs.

**GOAL:** To better facilitate pedestrian and bicycle travel.

### POLICIES:

- 37.1 Land development proposals should include provisions for both pedestrians and bicyclists, such as appropriately designed sidewalks, street crossings, access onto and through commercial sites and bicycle storage facilities at high traffic areas.
- 37.2 The City's Subdivision and Land Development Ordinance should be kept up-to-date with the best practices for bicyclists and pedestrians for their application in substantial developments.
- 37.3 The City's Capital Program should include public improvements that facilitate both walking and bicycling to employment and neighborhood shopping facilities proximate to City residential areas.
- 37.4 Pedestrian and bicycling trends should be monitored in order to better meet changing resident transportation choices and how they impact employment and shopping.

### ACTIONS:

- Develop a Bicycle Master Plan for the City.
- Continue to require the installation of sidewalks for all new development.
- Consider the need for pedestrian and/or bicycle access and facilities as part of the site plan review process.
- Employ techniques to improve pedestrian safety on all major arteries, with particular emphasis on the North 7th Street corridor.
- Work with design professionals and bicycle advocates in developing consensus for on-street bicycle provisions.

# Plan Example

Executive Summary  2010

## CONNECTING OUR COMMUNITY

*A Plan for Connecting Allentown's Parks and People through a Network of Bicycle and Pedestrian Trails*



**Allentown**  
City without limits.

*Prepared For:*  
**THE CITY OF ALLENTOWN, PENNSYLVANIA**

*Prepared By:*  
GREENWAYS INCORPORATED  
STROMBERG/GARRIGAN & ASSOCIATES, INC.  
TOOLE RECREATION PLANNING  
MCTISH, KUNKEL & ASSOCIATES

# Plan Example

FEBRUARY 2010 | CITY OF ALLENTOWN

## Policy/Administrative Action Steps:



The PRTC could be represented by individuals from the Steering Committee (above) and individuals from local organizations such as Bike Allentown, Community Bike Works, Coalition for Appropriate Transportation, and others.

Below: Park and trail signs in Allentown could be consolidated and simplified to display easy-to-understand rules like the ones shown here.



ES-4 EXECUTIVE SUMMARY

### 1. Adopt This Plan

One major action step for the City of Allentown is to adopt, publicize, and champion this plan. This should be considered the first step in implementation. Through adoption of this document and its accompanying maps as the City's official trails plan, Allentown will be better able to shape transportation and development decisions so that they fit with the goals of this plan. Most importantly, having an adopted plan is extremely helpful in securing funding from state, federal, and private agencies. Adopting this plan does not commit the City to dedicate or allocate funds, but rather indicates the intent of the City to implement this plan over time, starting with these key action steps.

### 2. Establish a Parks, Recreation, and Trails Commission (PRTC)

As recommended in Allentown's Parks and Recreation Master Plan, the City of Allentown should establish a Parks, Recreation, and Trails Commission (PRTC) to assist in implementation. One leader from the PRTC should be appointed to bicycle, pedestrian, and trail issues. The PRTC's role would be to provide a communications link between the citizens and the City of Allentown, as well as an avenue for reviewing/revising project priorities for implementation. These organizations, and others like them, traditionally focus on education, advocacy, partnerships, events and community service. PRTC should begin quarterly meetings directly after members are appointed.

### 3. Seek Multiple Funding Sources and Facility Development Options

Multiple approaches should be taken to support bicycle, pedestrian, and trail facility development and programming. It is important to secure the funding necessary to undertake priority projects but also to develop a long-term funding strategy to allow continued development of the overall system. Capital and local funds for sidewalk, bicycle lane, crosswalk, and trail construction should be set aside every year, even if only for a small amount (small amounts of local funding can be matched to outside funding sources). A variety of local, state, and federal options and sources exist and should be pursued. These funding options are described in Appendix C: Funding. Other methods of pedestrian and bicycle facility development that are efficient and cost-effective are described at the end of Chapter 4: Implementation.

### 4. Improve Signage along Existing Trails and Parks

The goal of this study's signing program is to establish a framework of sign types, information hierarchy and design standards to create a seamless experience as one navigates along the City's trail system. One of the primary results of a coordinated sign program is that it naturally reduces clutter by presenting a consistent design and organized information. Key elements of the new sign program include establishing a brand identity and following the guidelines provided for kiosks, directional signs, interpretive signs, and regulatory signs.

# Plan Example

FEBRUARY 2010 | CITY OF ALLENTOWN

## COMPLETE STREETS POLICY

The general spirit of a 'Complete Streets' policy could be summarized as follows:

*The future design and reconstruction of streets and intersections in the City of Allentown should aim to serve all types of users, including pedestrians, bicyclists, and motorists, and should be inclusive of all levels of ability, such as those in wheelchairs, the elderly and the young.*

## PREPARE ADDITIONAL DOCUMENTS AND STUDIES

**1. Develop trail construction documents for priority projects.** The City could prepare these in-house to save money, using the design guidelines of this plan and the project cut-sheets as starting points. The public should have an opportunity to be involved in the design of new facilities.

**2. Publish a user-friendly hand-held map and online website for bicycling and walking in Allentown.** The map would encourage individuals and groups to become more active through biking and walking by showcasing key destinations, suggested routes of travel, and safety/etiquette information. The map should also be available for download on a web site or City web page that is entirely dedicated to hosting information about bicycling, walking and trail-related issues in Allentown. The website and map could be maintained (and possibly even created) by volunteer members of the City's Parks, Recreation, and Trails Commission (PRTC), and should feature information about PRTC meetings and activities.

**3. Coordinate with LANTA** and associated boards and commissions to identify multi-modal transportation initiatives that would benefit pedestrians, bicyclists, and transit users in Allentown.

ES-6 EXECUTIVE SUMMARY

## 6. Improve Bicycle, Pedestrian and Trail Policies

While Allentown's Comprehensive Plan (Allentown 2020) and zoning codes address non-motorized transportation in a number of important ways, some policy updates are recommended to ensure future development provides pedestrian and bicycle facilities and improves bicycle/pedestrian friendliness. Specifically, a Complete Streets Policy should be drafted and adopted according to the guidelines set forth in this study (see sidebar at left).

## 7. Continue to Maintain Bicycle, Pedestrian, and Trail Facilities

Additional maintenance costs for bicycle, pedestrian, and trail facilities (striping, sweeping, etc) are small incremental costs relative to the City's overall public works budget. The recommended strategy is to integrate maintenance into ongoing City programs. For bicycling, an emphasis for maintenance crews is to sweep all the way to the curb or edge of shoulder (where many bicyclists often ride). For trails, emphasis should be on target areas of improvement. Efforts can also be made through the PRTC to establish 'adopt a trail' and 'adopt a bike-way' programs—bringing attention to maintenance 'hot-spots' as they arise. Consider sub-contracting for striping and painting bicycle and pedestrian facilities.

## 8. Prepare Additional Documents And Studies

This Plan should be viewed as a springboard for additional bicycle, pedestrian, and trail planning, research, and documentation. Additional efforts that should be completed are featured in the sidebar at left.

## 9. Launch Programs as New Projects are Built

Through cooperation with the City of Allentown, the PRTC, and groups such as the Coalition for Appropriate Transportation (CAT), strong education, encouragement, and enforcement campaigns could occur as new facilities are built. When an improvement has been made, the roadway environment has changed and proper interaction between motorists, bicyclists, and pedestrians is critical for the safety of all users. A campaign through local television, on-site enforcement, education events, and other methods will bring attention to the new facility, and educate, encourage, and enforce proper use and behavior.

## 10. Offer Training for Enforcement

Law enforcement officers have many things to worry about, yet bicyclists and pedestrians remain the most vulnerable forms of traffic. The APD was consulted during this planning process, and should continue to be involved in implementation. In many cases, officers and citizens do not fully understand state and local laws related to bicyclists and pedestrians. Training on this topic can lead to additional education and enforcement programs that promote safety. Training for Allentown's officers could be done through free online resources available from the National Highway Traffic Safety Administration (NHTSA) (see links at [www.bicyclinginfo.org/enforcement/training.cfm](http://www.bicyclinginfo.org/enforcement/training.cfm)). Should PennDOT release grants for education, the City could also seek instructor-led courses offered by the NHTSA or groups such as the Coalition for Appropriate Transportation (CAT).



# Plan Example

FEBRUARY 2010 | CONNECTING OUR COMMUNITY

## 11. Continue Working with Safe Routes to School (SRTS) Programs



In late 2009, the Allentown School District was awarded Safe Routes to School grants for Central and McKinley Elementary Schools and South Mountain Middle School. Safe Routes to School is a national program with \$612 million dedicated from Congress from 2005 to 2009. Local Safe Routes to School programs are sustained by parents, community leaders, and citizens to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. This funding can also be used towards the development of school-related programs to improve safety and walkability initiatives. The City of Allentown should continue to assist its schools in applying for future SRTS programs, and be prepared to assist in implementation.

## 12. Become a Bicycle Friendly Community (BFC)

The BFC Campaign is an awards program that recognizes municipalities that actively support bicycling. A BFC provides safe accommodation for bicycling and encourages its residents to bike for transportation and recreation. Communities that are bicycle-friendly are seen as places with a high quality of life, and becoming a bicycle friendly community often translates into increased property values, business growth and increased tourism.

## 13. Create a Bicycle and Pedestrian Coordinator Position (when the City is capable)

*This recommendation is made with the understanding that it may take years before the City is able to afford to take on new positions.*

The City of Allentown will eventually need to create and fund the full-time dedicated position of Bicycle and Pedestrian Coordinator to handle the day-to-day implementation of recommended policies, programs and activities described within this study. The Coordinator will lead efforts to apply for funding, oversee planning, mapping, design and development of bicycle, pedestrian and trail projects. The Coordinator will assist with programming, public outreach, and monitoring of implementation. In the absence of a coordinator, these tasks fall to the Parks and Recreation Department and the Special Events Coordinator (some cities use a combination of staff, contract employees, consultants, partnerships with advocacy organizations and inter-department teams).

## 14. Benchmark Progress

Performance measures should be stated in an official City Trails Benchmark Report, prepared by the Parks and Recreation Director (with assistance from other departments) within one year after this plan is officially adopted. The report needs only to cover key performance measures, and should be concise (see Chapter 8: Implementation for suggested measures). This report could also be a showcase of success stories and would serve as a barometer for work that still needs to be accomplished.



*This study is an essential first step to becoming a BFC, yet Allentown will need to make significant strides in accomplishing the other action steps prior to applying for BFC status.*



*Advocacy groups (such as Bike Allentown shown above) are important partners for implementation of this study's recommendations. Bike Allentown is an advocacy group dedicated to improving the Greater Allentown community by promoting safe and enjoyable bicycling for transportation and recreation.*

# Plan Example



# Plan Example

4

Boalsburg Small Area Plan





# Plan Example

A Commercial Node subcommittee was formed to recommend goals and actions that when implemented would revitalize the commercial area so that it becomes an attractive destination. After looking at many successful examples of communities that have worked to repurpose their commercial districts, the committee developed recommendations that would encourage general improvement of the corridor's accessibility and appearance while providing redevelopment opportunities.

The plan envisions that the Boal Avenue corridor:

- Is transformed into a welcoming and attractive gateway.
- Becomes a destination with revitalized thoroughfares lined with community-oriented neighborhood commercial uses and greenspaces.
- Capitalizes on the assets of Boal Avenue and its close proximity to the Village of Boalsburg, the Military Museum, the Columbus Chapel and Boal Mansion and surrounding residential areas.
- Optimizes the use of commercial spaces while providing transitions into the adjoining cultural and historic areas.
- Provides pedestrian and bicycle friendly paths in front of buildings by moving parking lots behind buildings.
- Balances the transportation needs of pedestrians, bicyclists and motorists through streetscape improvements that provide easy access to the area's restaurants, stores and cultural offerings.

The following goals and actions were created through the planning process to address the future of the Commercial node. Goals and actions related to transportation improvements in the node, specifically those related to creating bicycle and pedestrian facilities along Boal Avenue, are included in the Connectivity section of the plan.

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all Area Plan

# Plan Example

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Boalsburg Small Area Plan



# Plan Example

## 6 D - CONNECTIVITY

Boalsburg is a charming and unique community which includes not only commercial and cultural areas but a historic village, residential areas, parks, shops, restaurants and a town square (the diamond). Connectivity between these areas and uses is crucial. While an extensive road network already exists, providing pedestrian and bicycle friendly pathways will improve safety, allow for easy access to all areas, enhance the attractiveness of living in Boalsburg and encourage more people to take advantage of all there is to offer.



Providing improved connectivity for all modes of transportation throughout the study area was identified as important issue early on in the planning process. The lack of pedestrian facilities along the Boal Avenue commercial corridor coupled with unsafe conditions for bicyclists has created a hostile environment for non-motorized transportation. Providing additional transportation facilities within the study area is challenging in part due to the characteristics of existing roadways and other physical features.

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As the Village, Commercial, and Cultural Node Subcommittees met independently to discuss goals and actions for their respective study areas, each group created a number of goals and actions related to improving connectivity. The goals and actions created by each subcommittee are incorporated into this section of the plan. These goals focused not only on improving connectivity within the Boalsburg study area as a whole, but ensuring that connectivity to surrounding neighborhoods and beyond was also expressed as a priority.



# Plan Example

**Goal 3:** Provide direct access from the Boal and Military Museum properties to other open space and recreational amenities in the Boalsburg area.

**Action 3.1:** Work with property owners to establish a shared-use/multi-modal connection from the Boal property to Blue Spring Park.



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Boalsburg Small Area Plan

# Plan Example

## 7 Implementation

Implementation of the recommendations included within the Small Area Plan is crucial to ensure that the goals outline within the plan are realized. Implementing the Small Area Plan will be the responsibility of the Board of Supervisors, which can utilize its various boards and commissions to facilitate the implementation process.

The Small Area Plan Steering Committee recommends that the following goals and actions should be addressed in the short term (over the next 2 to 3 years). Because the Commercial node has the most challenges, the Steering Committee recommends starting with the recommendations within this chapter.

### COMMERCIAL NODE

#### **Revise zoning regulations to encourage redevelopment of existing commercially zoned properties along the Boal Avenue corridor.**

Over the last few years, several property owners along Boal Avenue have expressed frustration with the current Commercial District regulations. These regulations make the reuse of existing properties cumbersome at best. As the Planning Commission continues its comprehensive overhaul of the

Township's Zoning Ordinance, thought should be given to revising these regulations to promote more commercial development within the Boal Avenue corridor and to make the area more attractive.

Consideration should also be given to revising the Commercial District regulations to orient new construction towards Boal Avenue and to separate it from the street by a landscaped yard. Front yard areas should be devoted to landscaping and sidewalks, with parking located in the rear of the property.

#### **Protect natural and environmental features within the commercial node.**

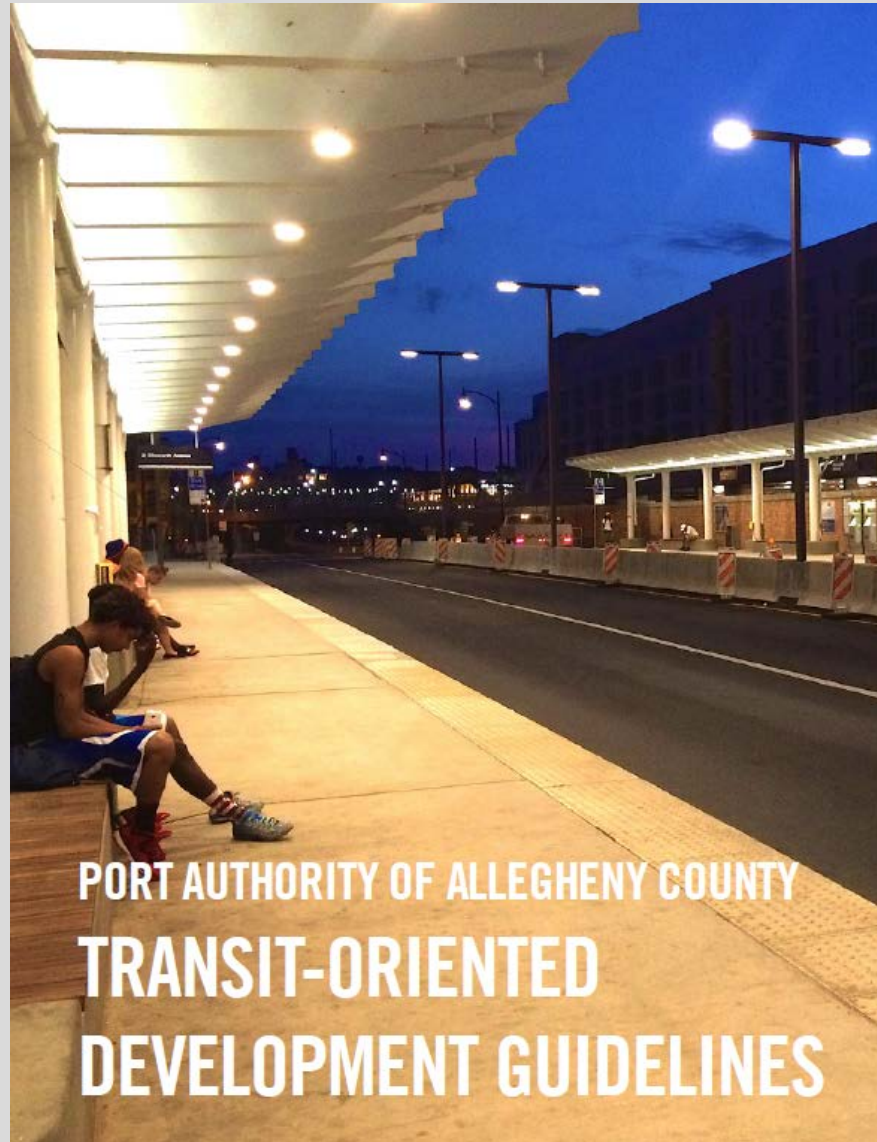
Consideration should be given to establishing maximum impervious coverage limitations for the Commercial Zoning District. The use of Best Management Practices (BMPs) and green infrastructure should also be encouraged. The Planning Commission should work with the Township Engineer to implement these recommendations.

#### **Provide transportation facilities within the Commercial node that balance the needs of pedestrians, bicyclists and motorists.**

The Township should approach PennDOT to discuss the long term plans for Boal Avenue and its desire to have the road considered for a road diet. The road diet would reduce the number of travel lanes and provide a center turning lane and bike lanes.



# Transit-Oriented Development Guidelines

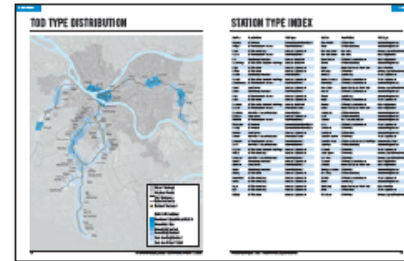


# How to Use These Guidelines

These transit-oriented development (TOD) guidelines are meant to provide the entire community of TOD stakeholders – transit agencies, local governments, regional planners, community groups, developers, and others – with a common vocabulary and frame of reference.

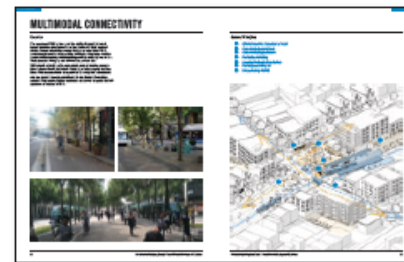
## 1. Understand the station TOD type.

The stations in Port Authority's system cover a range of locations, neighborhoods, types of transit, amenities, markets, demographics, design styles, topographies, and riders. Stations are classified by six typologies based on a combination of density and use mix. Any TOD project should begin by understanding the current station TOD type as well as the type the community has identified for the future, if applicable. Project scale, density, use mix, and parking strategy will vary depending on the TOD typology. The guidelines also contain general principles that all TOD projects in the region should follow.



## 2. Explore opportunities to expand multimodal connectivity.

Successful TOD expands and enhances the connection between transit and other modes of travel. Review the Multimodal Connectivity guidelines to understand connectivity principles for different modes. Does the project have opportunities to make new pedestrian or bicycle connections? What is the right role for parking in the project and how can it best be integrated into the planned development?



## 3. Orient projects around increasing station area walkability.

TOD projects should be designed around the pedestrian. Review the Walkability guidelines, including principles for creating a walkable public realm around the station. How can the TOD project expand and improve pedestrian connections to the station? How can the project shape and enhance public spaces and create safe engaging outdoor environments for people?

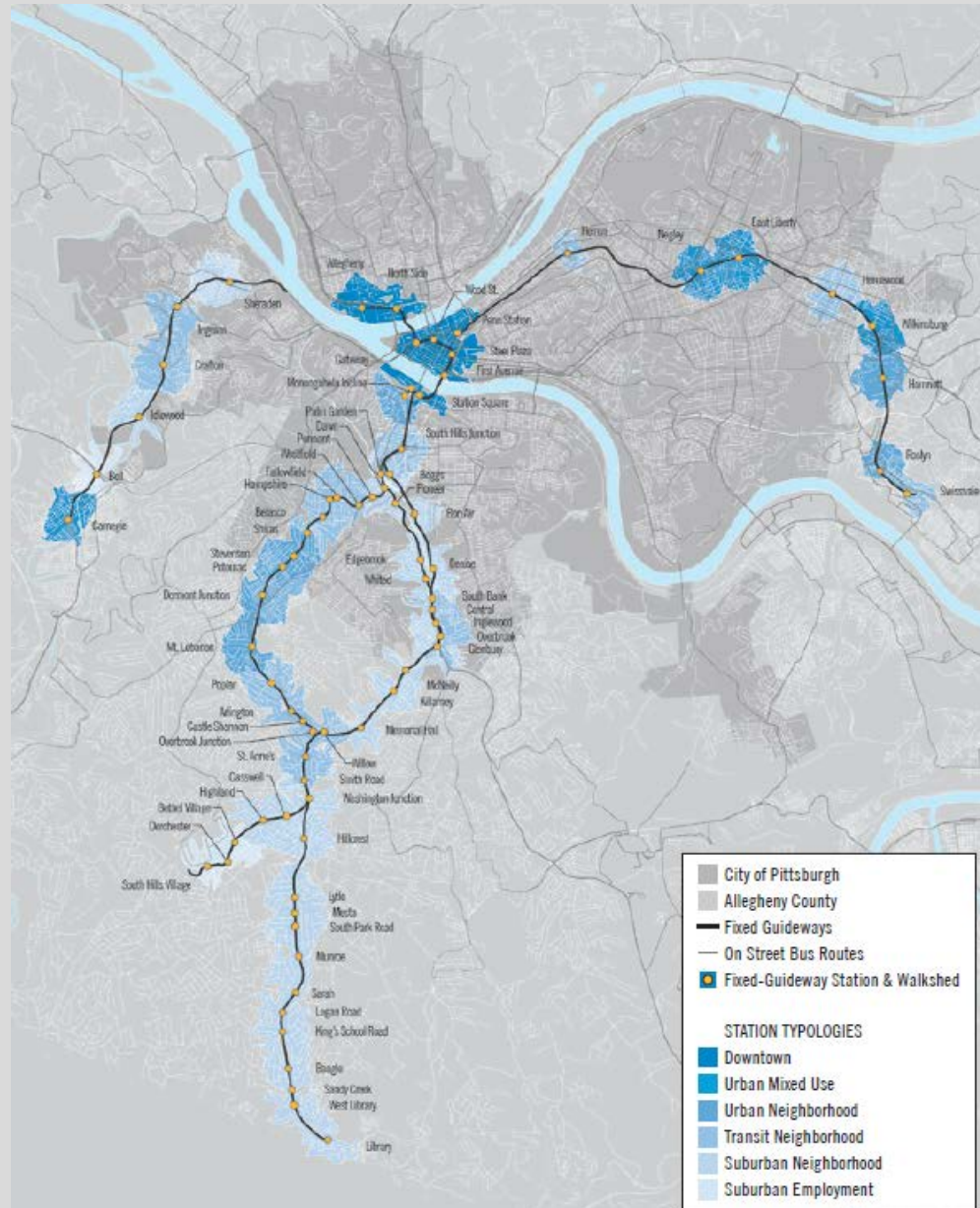


## 4. Design development that integrates and expands transit use.

TOD allows people to integrate transit use into their lives by creating dense, mixed-use places where they can live, work, shop, and play. Review the Development guidelines to understand the appropriate scale, density, and parking strategy for the TOD type being proposed. This section also outlines general principles for relating TOD to the surrounding context and creating sustainable, high-quality urban buildings.



# TOD Type Distribution





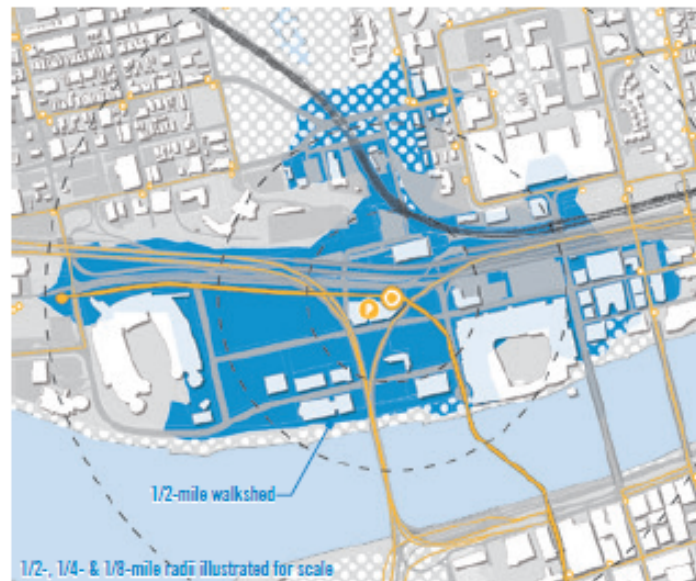
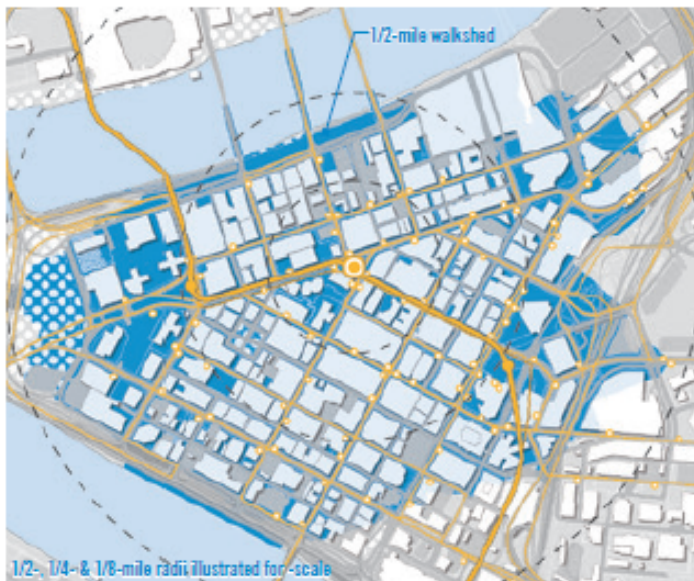
# Type: Downtown

Downtown stations are located in or on the perimeter of Downtown Pittsburgh's urban core. Serving as the largest employment center in the region, the area experiences the highest density of ridership in Port Authority's system. The stations in this category consist of three central stations, four stations on the immediate perimeter of central Downtown, and two stations across the river from central Downtown and adjacent to major North Shore attractions: PNC Park, Heinz Field, and Rivers Casino. Due to a lack of permanence and infrastructure, the Downtown on-street bus stops that serve busway routes (such as the P1 and G2) are not included in this type. If, in time, these stops become more permanently integrated, inclusion is possible.

As regional destinations for work and entertainment, these stations experience high levels of ridership. In transit systems where downtown is designated as the central point, as in Allegheny County, connections to local (on-street) and rapid (designated right-of-way) transit are strongest for this station type.

Automobile parking at Downtown stations should not exist because they are the end destination for a large volume of riders, transit is readily available, development opportunities are limited, and there is a density of uses and attractions nearby. High levels of transit service are provided to these stations throughout the work day and during special events, easing the challenges of limited parking and road congestion.

These parking and congestion challenges also highlight the importance of providing robust multimodal access. Pedestrian connections to high-rise, mixed-use development in the urban core is vital to these stations areas. Access and connectivity are generally well-accommodated where the topography is relatively flat and there are small, dense blocks. With a growing cycling culture, it is increasingly important to provide bike access and parking at all Downtown stations. Recently-established and future bike lanes facilitate car-free access to downtown and surrounding areas.



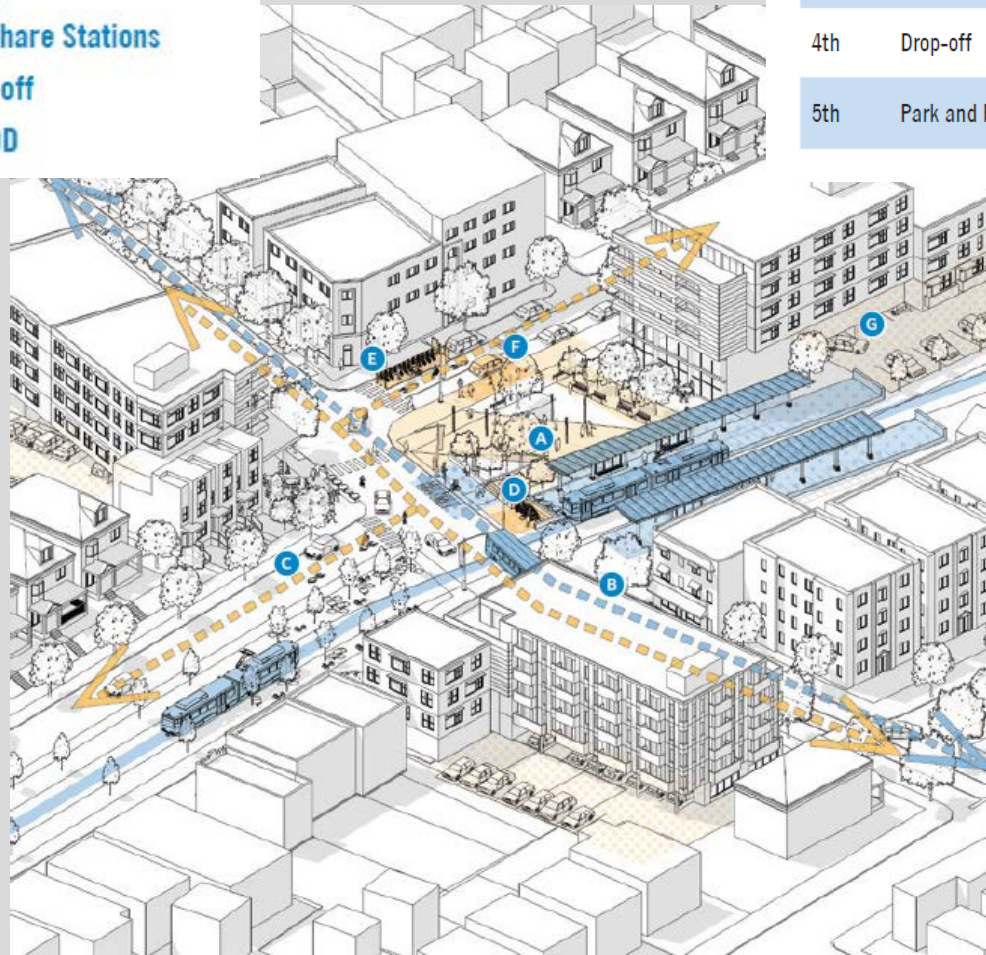
# General Principles / Mode Priority

## General Principles

- A** Optimize Pedestrian Connections to Transit
- B** Connect to the Transit Network
- C** Connect to the Bicycle Network
- D** Provide Bicycle Parking
- E** Accommodate Bicycle Share Stations
- F** Provide Space for Drop-off
- G** Balance Parking with TOD

## Mode Priority

- |     |                     |
|-----|---------------------|
| 1st | Walking             |
| 2nd | Cycling             |
| 3rd | Transit Connections |
| 4th | Drop-off            |
| 5th | Park and Ride       |



# Multimodal Connectivity: Bicycles

## Connect to the Bicycle Network

Shared and protected bicycle lanes are gaining a presence on local roads. Bike infrastructure has tripled in the City of Pittsburgh over the last five years. Other municipalities are planning for people who cycle. TOD planning should consider how the development and station, as destinations, can ensure safe cycling connections to the existing bicycle network. This will likely require collaboration and coordination between the developer, transit agency, and local jurisdiction to create safe connections across property lines.

Infrastructure such as bike path crossings, bike signals at intersections, and bike corner turning allowances can be incorporated into developments to get cyclists to/from networks and destinations



## Provide Bicycle Parking

With the prevalence of cycling as a mode of transportation, it's important in the design of any multimodal facility to consider what happens to bicycles when cyclists arrive at their destination.

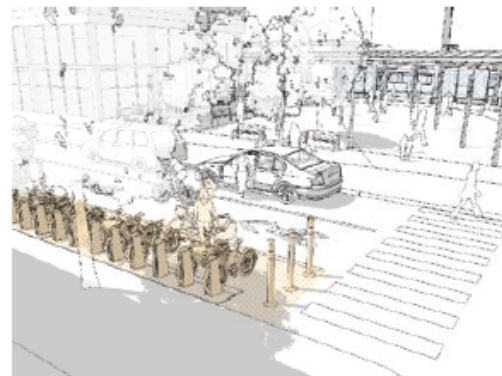
People who cycle should feel that their property is secure and protected when it is parked. Shelter from the elements is an important first step and will attract a higher level of use. Beyond that, bicycle lockers or bicycle garages (a locked room or structure) are ideal to provide security from theft and keep bikes dry.

As cycling grows in popularity, more space will be required to park bicycles at destinations. Two-bike racks along the street are no longer sufficient. Space should be dedicated within TOD to ensure that bicycles are accommodated and that they do not infringe on valuable public space for pedestrians and other users. Many bike rack designs can help property owners save space, by hanging bikes vertically or stacking them.



## Accommodate Bicycle Share Stations

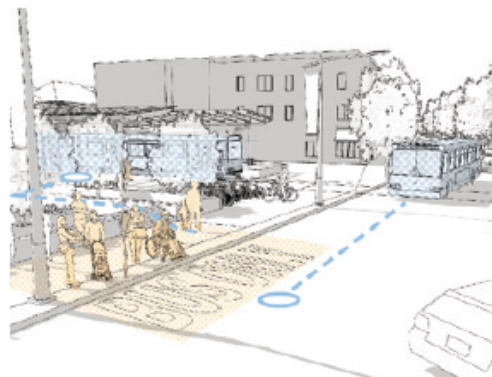
Today, there are 50 bike share stations across the central and eastern areas of the City of Pittsburgh, providing an important connection for short trips. TOD is an ideal context for bike share. By co-locating bike share and transit stations, the area that a transit rider can reach in 10 minutes – and the number of people who can be reached within a 10-minute trip – is expanded. Regardless of bicycle ownership, active individuals can quickly pedal from their origin to a transit station or TOD destination. This expands the options that TOD and transit users have to make short trips without a car.



# Multimodal Connectivity: Transit

## Connect to the Transit Network

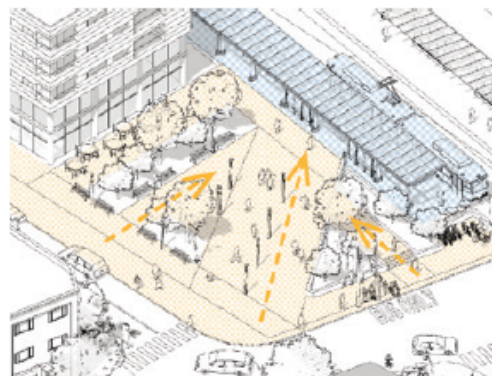
An integrated TOD and station design should facilitate quick and easy transfers through direct and intuitive pedestrian connections, and by intentionally creating access to on-street bus routes. Significant infrastructure may or may not be present for the on-street bus routes at the time of development. If a new building or public space is planned adjacent to an on-street stop, on-street transit stops could be integrated into the development. Simple measures, such as awnings and leaning rails, can be easily incorporated into a limited portion of a development, benefitting transit users who support and use the development.



## Optimize Pedestrian Connections to Transit

All transportation trips begin and end with a walking trip. The quality of the pedestrian experience affects travelers' ability and desire to utilize a mode of transportation and visit various destinations. Safe and welcoming pathways encourage walking, not only to and from transportation, but also to access goods and services, encouraging unplanned stops and purchases.

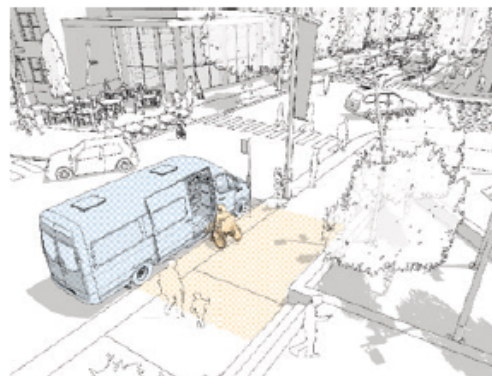
The routes that pedestrians use to access a transit station should be optimized through the creation of TOD. Development may present opportunities for investigating new configurations of pathways, helping to establish more direct and pleasant pedestrian connections for those walking to and from the station.



## Provide Access for Other Types of Transit

Paratransit provides an important link for senior citizens and people with disabilities who would otherwise not have the freedom to travel the region. Convenient and safe pick-up and drop-off locations for paratransit are critical for new development, especially when it contains public services, such as retail, medical offices and more.

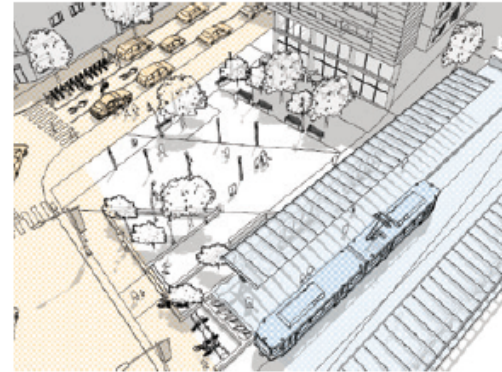
Depending on the location of a TOD, creating space for other public transit carriers (e.g., those from outside Allegheny County) to drop off passengers may be a worthwhile consideration. At certain locations, making connections to national and inter-city transit services may enhance and facilitate riders' experiences.



# Multimodal Connectivity: Cars

## Connect to the Street Network

To be integrated with the larger community, TOD must connect with the local road network. New streets should make pedestrian and vehicular connections to the existing network and restore any historic grid patterns that were interrupted by past changes. Dead-end streets should be avoided, where possible, to maximize the flow of people through and around the TOD. Future development should be considered when designing street connections.



## Provide Space for Drop-off / Pick-up

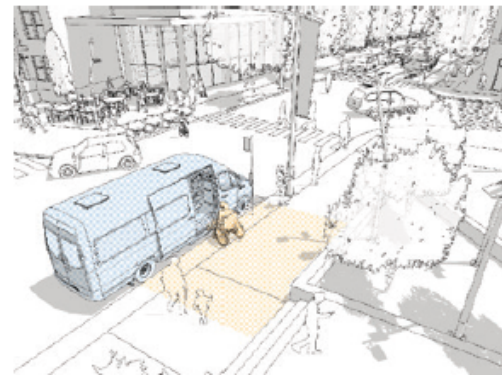
Drop-off activity can be difficult to control as drivers seek the most convenient position relative to the station. Spreading out this activity is ideal. By providing easy access from as many directions as possible, drop-off/pick-up locations can provide a more efficient vehicle access than parking by allowing many vehicle loads throughout the day. These drop-off locations should be arranged with sufficient distance from the station to ensure that non-motorized transportation is prioritized. Drop-offs should be positioned to ensure that they don't create barriers to station access for other transit modes.

Incorporating pull-off areas can also decrease the traffic congestion and confusion that would occur as drivers stop and wait, to pick-up/drop-off riders.



## Provide Access for Transportation Services

Where feasible, the station environment should accommodate drop-off by other minor modes of transportation, including para-transit, ride-hailing services, taxis, and university- or employer-run shuttles. These services cannot replace public transit service, but they can complement it, providing a valuable first- and last-mile connection for riders with disabilities, students, and other transit users who may not be able to walk or bike directly to a station or end destination.

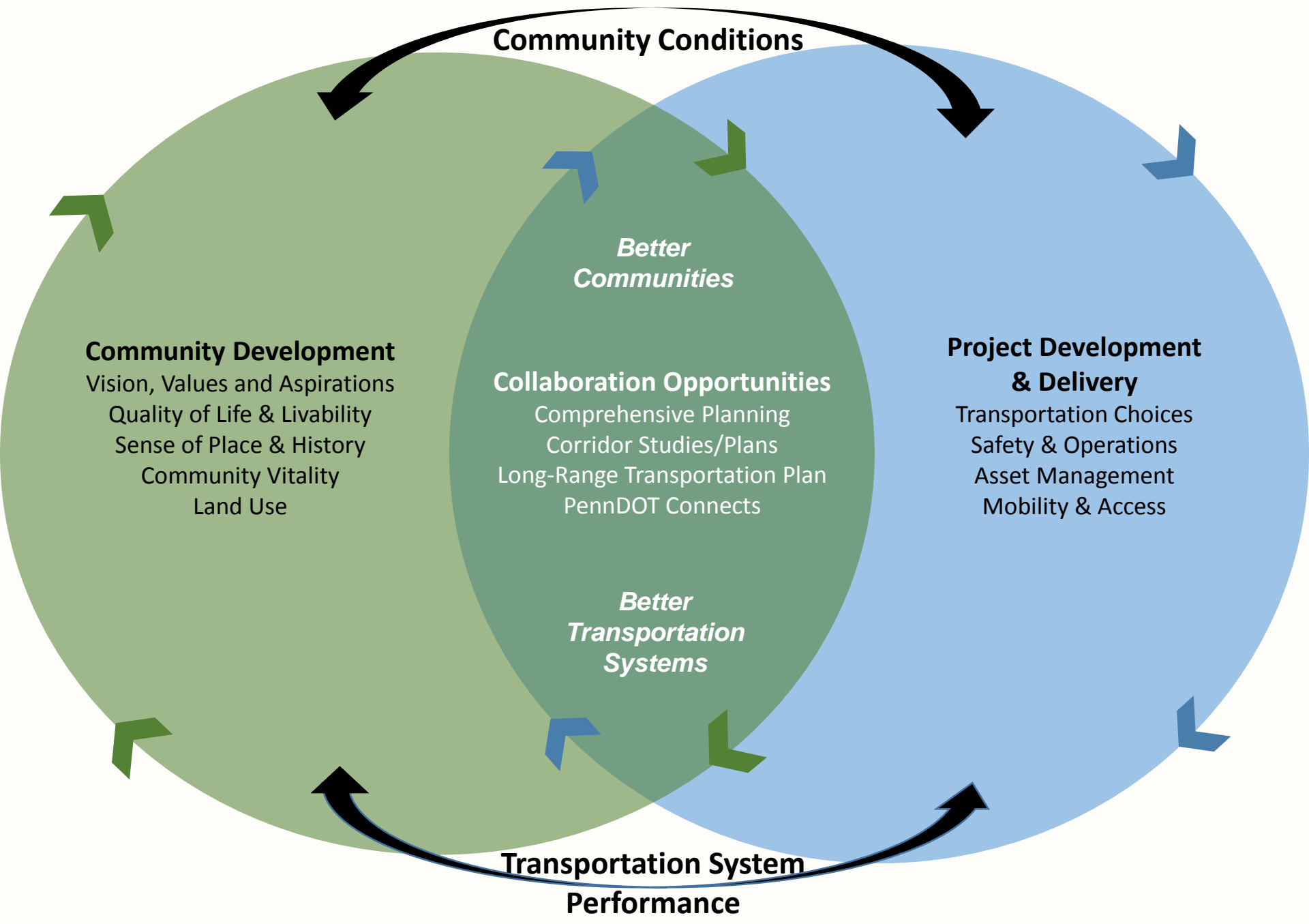


# Discussion



Given the full range of local plans we have covered, which two or three plans would your table's community need to review, update, or develop as you move forward?

# Planning & Engineering Collaboration



# Community Planning and PennDOT Connects

## Goals of PennDOT Connects (from Secretary Richards)

### **GOAL: Better Communities and Mobility Powered through Collaboration**

- PennDOT Connects **builds** partnerships that invest in sustainable transportation.
- PennDOT Connects **leverages** resources to improve communities.
- PennDOT Connects **leads and innovates** for a more livable Pennsylvania.
- PennDOT Connects **delivers** projects that improve economic competitiveness, access to work, and overall quality of life.



# Community Planning and PennDOT Connects

Attachment 1

12/19/16

## PennDOT Connects Project Initiation Form

**Meeting Date** \_\_\_\_\_

This form should be completed in conjunction with the proposal screening process. Upon completion, this form should be attached to the screening form. This form is meant to expand on and enhance the information provided in the screening form and to document coordination with local planners.

*Project Name:* \_\_\_\_\_

*Project Location:* \_\_\_\_\_

*Project Purpose:*

---

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*Project Need:*

---

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*Short Project Description and Scope:*

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Every transportation project should begin its life as a project that improves safety, mobility, and accessibility for all users: drivers, pedestrians, bicyclists, transit passengers, freight carriers, and area residents and businesses. Early scoping should ensure that the design and development process clearly documents considerations that meet as many objectives as reasonably possible, including maintenance considerations. If the decision is made to not include specific considerations in the project scope, those decisions should be documented, as well. The following sections document various considerations related to these objectives. Supportive web maps are available as a resource for those completing this form on

[MPMS IQ](#).

# Community Planning and PennDOT Connects

## Pedestrians

Dedicated pedestrian facilities should be evaluated for all highway projects. Depending on the project's context, these may include elements like a multiuse trail, sidewalk, and crosswalks with supportive elements like flashing beacons. In rural areas, a wider shoulder can serve as a very basic pedestrian path.

	<b>Pedestrian facilities to be considered:</b>	<b>Pedestrian facilities will NOT be accommodated because (at least one):</b>
1.	<ul style="list-style-type: none"><li><input type="checkbox"/> Shared roadway/wide shoulder</li><li><input type="checkbox"/> Sidewalks</li><li><input type="checkbox"/> Crosswalks</li><li><input type="checkbox"/> Pedestrian Signalization</li><li><input type="checkbox"/> Multi-use trail</li><li><input type="checkbox"/> Additional element(s): _____</li></ul> <p>Notes: _____ _____ _____ _____</p>	<ul style="list-style-type: none"><li><input type="checkbox"/> Location is greater than .25 mile from any existing pedestrian facility or public transit stop, and is not recommended for a pedestrian connection in any local, county, or regional plan.</li><li><input type="checkbox"/> Location has unique site constraints, such as steep slopes.</li><li><input type="checkbox"/> Safer pedestrian accommodations would drastically increase the overall anticipated project cost (in such cases, consider opportunities to ensure future pedestrian accommodations are not precluded by the design).</li><li><input type="checkbox"/> Additional reasons(s) and notes:</li></ul>

# Community Planning and PennDOT Connects

Pedestrians	
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<p><b>Pedestrian facilities to be considered:</b></p> <p><input type="checkbox"/> Shared roadway/wide shoulder</p> <p><input type="checkbox"/> Sidewalks</p> <p><input type="checkbox"/> Crosswalks</p> <p><input type="checkbox"/> Pedestrian Signalization</p> <p><input type="checkbox"/> Multi-use trail</p> <p><input type="checkbox"/> Additional element(s): _____</p> <p>Notes: _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Pedestrian facilities will NOT be accommodated because (at least one):</b></p> <p><input type="checkbox"/> Location is greater than .25 mile from any existing pedestrian facility or public transit stop, and is not recommended for a pedestrian connection in any local, county, or regional plan.</p> <p><input type="checkbox"/> Location has unique site constraints, such as steep slopes</p> <p><input type="checkbox"/> Safer pedestrian accommodations would drastically increase the overall anticipated project cost (in such cases consider opportunities to ensure future pedestrian accommodations are not precluded by the design).</p> <p><input type="checkbox"/> Additional reasons(s) and notes:</p>
<p><b>Bicyclists</b></p> <p>Bicycle mobility should be evaluated for all highway projects. Depending on the project's context, improvements may include elements like a multiuse trail, protected bicycle lane, striped bicycle lane (standard or buffered), sharrows, and supportive elements like dashed pavement markings in conflict areas and bicycle detection at traffic signals. In rural areas, a marked shoulder can serve as a very basic bicycle connection, provided it is supplemented with pavement markings in conflict areas as necessary.</p>	
<p><b>Bicycle facilities to be considered:</b></p> <p><input type="checkbox"/> Multi-use trail</p> <p><input type="checkbox"/> Protected bike lane</p> <p><input type="checkbox"/> Striped bike lane (buffered or standard)</p> <p><input type="checkbox"/> Marked shoulder with supplemental pavement markings</p> <p><input type="checkbox"/> Share the Road Signage</p> <p><input type="checkbox"/> Additional element(s): _____</p> <p>Notes: _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Bicycle facilities will NOT be accommodated because (at least one):</b></p> <p><input type="checkbox"/> Location is greater than 0.5 mile from any existing bicycle facility or public transit stop, and is not recommended for bicycle connection in any local, county, regional, or state plan.</p> <p><input type="checkbox"/> Location has unique site constraints, such as steep slopes</p> <p><input type="checkbox"/> Safer bicycle accommodations would drastically increase the overall anticipated project cost (in such cases, consider opportunities to ensure future bicycle accommodations are not precluded by the design).</p> <p><input type="checkbox"/> Additional reasons(s) and notes:</p>

- Comprehensive Plan
- Land Use and Zoning
- Subdivision and Land Development Ordinance
- Stormwater Management
- Official Map
- Act 537 Sewage Facilities Plan
- Neighborhood Strategic Plan
- Parks and Recreation Plan
- Transit Improvement District
- Greenways Plan
- Bicycle and Pedestrian Plan
- Emergency Operations Plan
- Redevelopment/"Brownfields" Plan
- Historical District/Cultural Resources Plan
- Modal Plans (e.g., Transit Development Plans)
- Economic Development
- Airport Hazard Zoning

# Community Planning and You

## Activity



In your table teams, write down a few suggestions below regarding how an awareness of community planning can affect your work, and how your involvement can add value to community planning.

How will an understanding of the tools used in community planning be used in your work?  
(Consider the checklist that is included in the policy.)

*Write your team's ideas here.*

How can your involvement add value to community planning?

*Write your team's ideas here.*

# Wrap-up and Next Steps



- How can we, as Planners and Engineers, start working within the framework of this new policy?
- What are some steps you could take to start applying what you have learned today?
- Who would be among the first partners you could collaborate with?

# Planning & Engineering 360°

## Module 1: The Value of Planning

