



Pendleton Thoroughfare Plan Adopted August 2021

A component of the Comprehensive Plan

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Adoption

This Thoroughfare Plan shall be in full force and effect for the jurisdiction of the Town of Pendleton on August 12, 2021. The effective date is based upon the passage and notice of adoption as required by law.

This Thoroughfare Plan was recommended for adoption by the Pendleton Plan Commission on August 4, 2021.

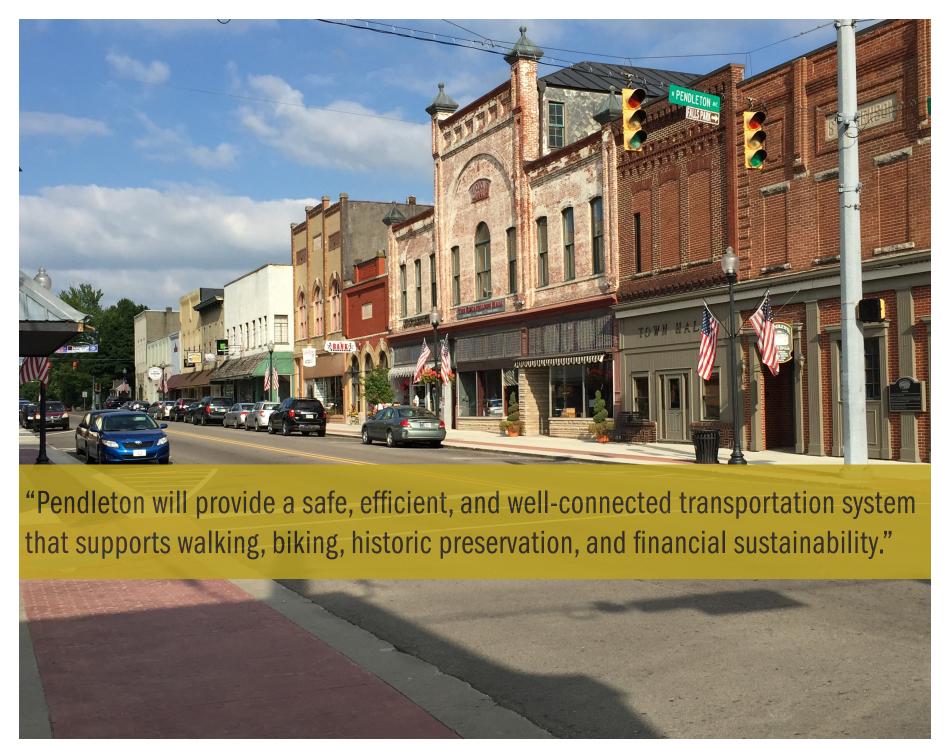
This Thoroughfare Plan was passed and adopted by Pendleton, Indiana Town Council, as an amendment to the Pendleton Comprehensive Plan as Resolution #2021-07 on August 12, 2021.

Prepared for: The Town of Pendleton



Prepared by: Madison County Council of Governments





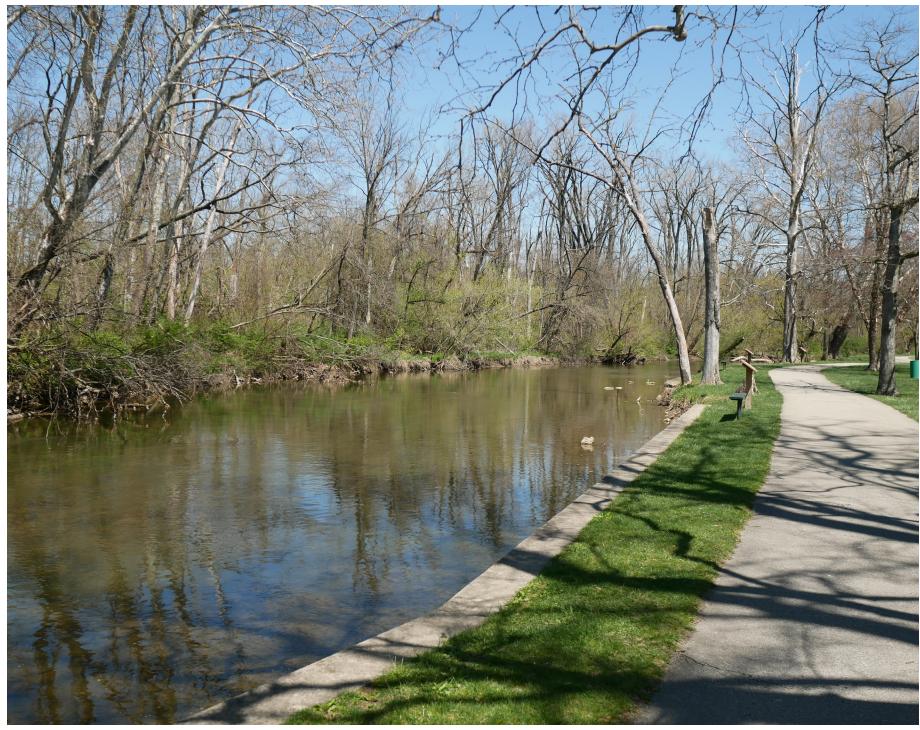


TABLE OF CONTENTS

| Executive Summary | 7 |
|-----------------------------------|----|
| Chapter 1: Introduction | 9 |
| What does a Thoroughfare Plan do? | |
| Planning Process | |
| Previous Planning Work | |
| Chapter 2: Context and Background | |
| Analysis Areas | |
| Demographic Trends | |
| Transportation System | 26 |
| Transportation Improvements | |
| Chapter 3: Public Participation | 37 |
| Steering Committee | |
| Public Engagement Process | |
| Survey Demographics | |
| Chapter 4: Scenario Planning | 51 |
| Scenario Planning Process | 52 |
| Chapter 5: Implementation | 61 |
| Thoroughfare Plan Map | 62 |
| Design & Typical Cross Sections | |
| Action Items | |



Executive Summary

The Town of Pendleton is in southwest Madison County, located on the northeast edge of the Indianapolis metropolitan area. Pendleton is expected to grow steadily due largely to its proximity to Indianapolis and I-69. Transportation system improvements are necessary to address the new challenges and opportunities created by growth. The Pendleton Thoroughfare Plan analyzes the Town's current state of transportation, conducts public input to help identify community needs, and anticipates what changes are necessary for the next 25 years.

The Pendleton Thoroughfare Plan amends the transportation section of the Pendleton Comprehensive Plan to provide an expanded review of the transportation system. Per Indiana Code 36-7-4-503(6), a thoroughfare plan, as part of the comprehensive plan, may include: "a short- and long-range plan for the location, general design, and assignment of priority for construction of thoroughfares in the jurisdiction for

the purpose of providing a system of major public ways that allows effective vehicular movement, encourages effective use of land, and makes economic use of public funds."

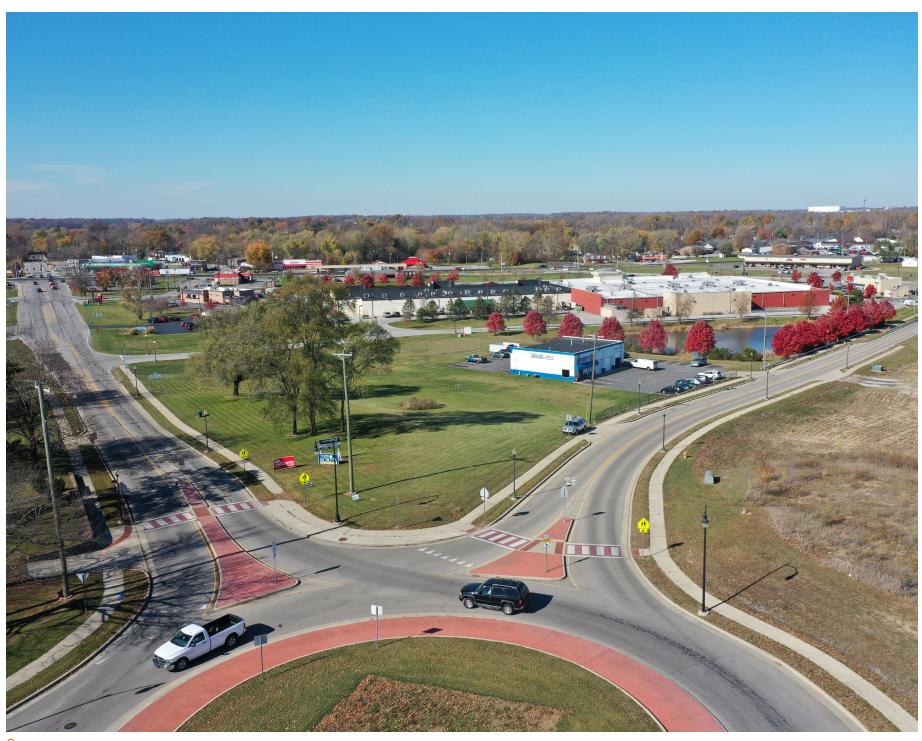
While the COVID-19 pandemic required a significant shift in the public participation approach, every effort was made to involve community members in the planning process. The Pendleton Thoroughfare Plan is developed focusing on community input and guided by the formation and active participation of a Steering Committee. Input gathered from two public surveys informed technical analysis and scenario development, as well as the vision and goals for the Plan. In addition to a formal public hearing, the final document incorporates comments received from a public workshop that was held in conjunction with the Unified Development Ordinance (UDO) development process.

This plan identifies the location and types of transportation facilities needed to meet current and projected growth in and around the town of Pendleton. Travel demand modeling and scenario planning are used to estimate potential impacts of different intensities and types of growth on the town's transportation system.

The Travel Demand Model (TDM) predicts demand on the transportation system in and around Madison County. It is one tool that provides analysis of the transportation system and impacts of varying future scenarios, such as differing population and employment growth projections or a comparison of specific project proposals. This data-informed approach provides necessary guidance for proactive decision-making by community leaders and elected officials.

Though public input is intended to guide the future development of the Pendleton transportation system, the long-term outcome requires many steps to achieve and a coordinated effort by multiple stakeholders, including various municipal departments as well as INDOT and MCCOG. A comprehensive list of recommendations has been developed to support this vision and address the current and future needs of the transportation system. These recommendations represent the compilation of information from public input and technical analysis conducted through the Thoroughfare Planning process.

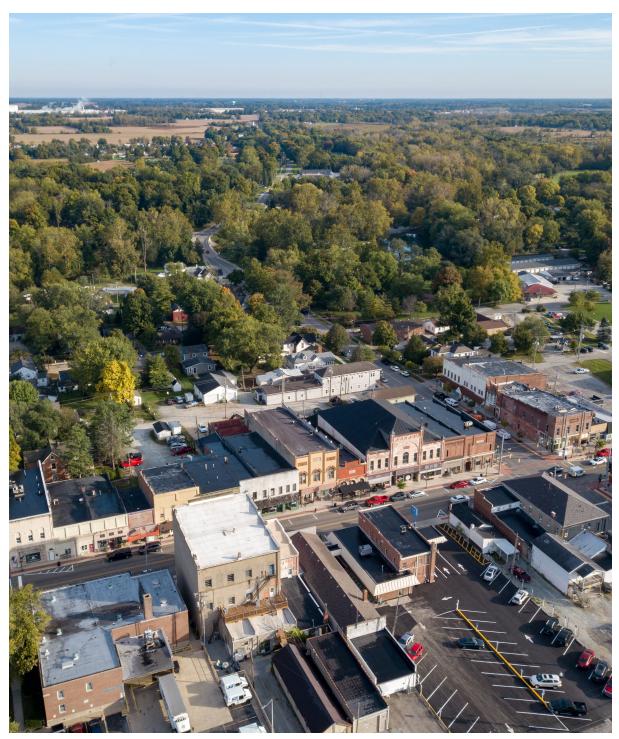




CHAPTER 1: Introduction

The Pendleton Thoroughfare Plan amends the transportation section of the Pendleton Comprehensive Plan (adopted 2018) to provide an expanded review of the transportation system. A comprehensive plan is a document that provides a basis for public policy and local decision-making on land use, recreation, utilities, housing, transportation, and other areas of community and economic development. A thoroughfare plan, frequently developed in conjunction with a comprehensive plan, provides insight on transportation policy over at least a 10-year planning horizon.

Per Indiana Code 36-7-4-503(6), a thoroughfare plan, as part of the comprehensive plan, may include: "a short- and long-range plan for the location, general design, and assignment of priority for construction of thoroughfares in the jurisdiction for the purpose of providing a system of major public ways that allows effective vehicular movement, encourages effective use of land, and makes economic use of public funds."



What does a Thoroughfare Plan do?

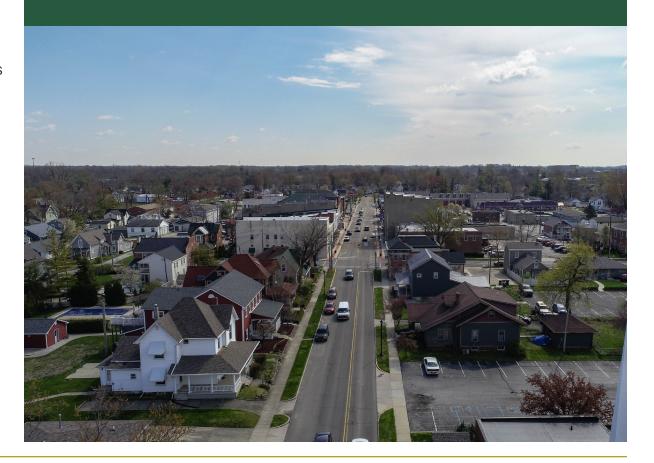
Thoroughfare plans establish a classification system and design standards for roadways throughout the community. Based on an evaluation of community goals and anticipated short- and long-term needs, the thoroughfare plan sets funding priorities and right-of-way standards, highlights development opportunities, and outlines potential funding sources. Implementation of the thoroughfare plan should result in effective multimodal connectivity and efficient movement of people and goods.

Planning Process

A thoroughfare plan lays the foundation for successful management of the transportation system, which is essential for the movement of people, goods, and ideas that support the community. This plan identifies the location and types of transportation facilities needed to meet current and projected growth in and around the town of Pendleton. Travel demand modeling and scenario planning are used to estimate potential impacts of different intensities and types of growth on the town's transportation system. This data-informed approach provides necessary guidance for proactive decision-making by community leaders and elected officials.

Indiana Code 36-7-4-506:

- "(a) A thoroughfare plan that is included in the comprehensive plan may determine lines for new, extended, widened, or narrowed public ways in any part of the territory in the jurisdiction.
- (b) The determination of lines for public ways, as provided in subsection (a), does not constitute the opening, establishment, or acceptance of land for public way purposes.
- (c) After a thoroughfare plan has been included in the comprehensive plan, thoroughfares may be located, changed, widened, straightened, or vacated only in the manner indicated by the comprehensive plan.
- (d) After a thoroughfare plan has been included in the comprehensive plan, the plan commission may recommend to the agency responsible for constructing thoroughfares in the jurisdiction the order in which thoroughfare improvements should be made."



How was the Thoroughfare Plan prepared?

The Pendleton Thoroughfare Plan combines public input with analytical tools. A base line understanding of existing conditions is established by gathering data such as:

- Land use patterns
- Sidewalk and trail locations / connectivity
- Bicycle and pedestrian accessibility
- Truck route concentrations
- Traffic congestion and delay
- Population growth trends
- Employment growth and business location trends

The Travel Demand Model (TDM) predicts demand on the transportation system in and around Madison County. It is one tool that provides analysis of the transportation system and impacts of varying future scenarios, such as differing population and employment growth projections or a comparison of specific project proposals. Regional impacts on the local road network provide insight into how specific corridors, such as I-69, US 36, and SR 13, will grow. The TDM was used in the planning process to allow for in-depth analysis of the transportation system and facilitate scenario planning.

The community participated in the planning process by forming and providing feedback through a Steering Committee, responding to public surveys, providing feedback on the final draft document, and providing comments during the formal public hearing adoption process at Plan Commission and Town Council meetings. Input from the public guides the plan and provides insight into existing and future concerns and desired outcomes. Public input also helps prioritize transportation projects.

COVID-19 Impacts

The Pendleton Thoroughfare Plan was developed during the COVID-19 pandemic, requiring a significant shift in the public participation approach. The public was generally encouraged to stay at home at that time. Restrictions that limited the number of persons allowed in a single space made it difficult to hold in-person events. So, steering committee meetings were conducted virtually and public input was gathered using surveys instead of traditional public meetings. Though virtual approaches were successful in attracting many participants, it is likely that there was decreased representation of people without internet access.

Previous Planning Work

Existing plans, ordinances, and studies establish the context in which the thoroughfare plan is developed. The goals and objectives of these planning works have guided the development of projects and recommendations for the thoroughfare plan. The Pendleton Thoroughfare Plan builds on several recent planning efforts both locally and regionally, though the primary considerations come from the 2018 Comprehensive Plan.

Town of Pendleton Comprehensive Master Plan 2018

The Pendleton Comprehensive Master Plan 2018 update was the third update to Pendleton's 2006 Comprehensive Plan. The 2018 update was precipitated by annexation along the Interstate 69 corridor.

The Comprehensive Plan envisions a growing Pendleton interested in pursuing new opportunities while maintaining its unique small-town character and

heritage. From this vision, the Comprehensive Plan identifies 10 goals covering different topics from land use to community infrastructure and services. The transportation goal states:

"Pendleton will provide a seamless, balanced, safe, efficient, and well-connected circulation system that supports alternative transportation and easily connects to the regional transportation network."

Each goal is supported by specific objectives to work toward. The transportation objectives are:

- Update the existing thoroughfare plan to include changes to Pendleton's functionally classified roads and projects from the 2017 Pendleton Bicycle and Pedestrian Master Plan.
- Continue coordination with the Indiana
 Department of Transportation (INDOT) and the
 Madison County Council of Governments (MCCOG)
 on major transportation improvement projects.
- Ensure the transportation system can be navigated easily.
- Develop limited-access areas on major Pendleton corridors.
- Continue implementing bicycle and pedestrian recommendations outlined in the 2017 Pendleton Bicycle and Pedestrian Master Plan.
- Continue involvement with the City of Anderson on the 67th Street Project.

From the objectives, the Comprehensive Plan lays out implementation items to be completed within a specified time frame. The proposed actions seek to utilize Pendleton's assets, such as short commuting distance to Metropolitan Indianapolis, new developable land, and historic appeal.

Town of Pendleton Bicycle and Pedestrian Master Plan

The Bicycle and Pedestrian Master Plan was completed in conjunction with the Pendleton Comprehensive Master Plan. It is an effort to expand active living and quality of life offerings to residents and businesses by identifying alternative transportation facilities and corridors. The plan recognizes that increased foot and pedal traffic is good for downtown businesses and merchants and aims to encourage active living by linking residents to services. The goals of the plan aim to expand the transportation system to fit the needs of Pendleton residents, as well as contribute to a regional transportation system.

Impact Fees Study

The State of Indiana outlines the use and definition of impact fees as, "to ensure standards by which new growth and development pay a proportionate share of the cost of new transportation facilities needed to serve new growth and development; and to ensure that impact fees are imposed through established procedures and criteria so that specific development do not pay arbitrary fees or duplicative fees for the same impact."

The Town of Pendleton put together an Impact Fee Study to analyze the impact of development on the Town's transportation system and determine associated impact fees. The study documents the data, methodology, and results for an impact fee in Pendleton. The methods used to calculate impact fees in the study are intended to satisfy legal requirements governing use of such fees.

Pendleton I-69 Interchange Master Plan Market Analysis

The Market Analysis, completed in 2021, documents existing conditions from a demographic and real estate perspective and provides baseline market statistics to inform future land use and potential development opportunities around the Exit 219 interchange. This market analysis is a critical tool in initial planning phases to ensure that future development opportunities are sensitive to the surrounding neighborhoods while based in market reality.

2045 inMotion Metropolitan Transportation Plan

2045 inMotion is the current metropolitan transportation plan for the Madison County Council of Governments (MCCOG) region, which includes Pendleton. It was developed through extensive public engagement and technical analysis. The plan serves as a guide for the development of integrated transportation facilities that support the people, places, and activities of the Anderson Metropolitan Planning Area. It is an important document to align with because it represents regional goals and objectives. It also serves as the base for scenario planning within the Pendleton Thoroughfare Plan.

Access Management & Control Ordinance

The purpose of access control is to improve the overall safety of a corridor by carefully regulating access to land adjacent to a roadway (I.e., by determining the appropriate number and location of access / driveways spacing, turn lanes, and median treatments). The Pendleton Access Management & Control Ordinance, adopted March 2021, utilizes the INDOT Access Management Guide as a base and updates standards to meet local conditions.

The Ordinance references the Thoroughfare Plan Map provided in this document. The level of access control applied to a given roadway is based on that roadway's assigned functional classification as shown in the map.

Unified Development Ordinance (UDO)

The purpose of the UDO is to combine the Zoning Ordinance and the Subdivision Control Ordinance to reduce redundancy and improve efficiency in the application of land development laws for the jurisdiction. The UDO, adopted in 2021, incorporates guidelines for dedicating right-of-way for proposed transportation corridors as well as existing ones that are expected to require improvements due to increasing traffic. Additionally, it establishes the minimum and maximum densities that are referenced in the scenario planning process for the Thoroughfare Plan.

Multi-Modal Ordinance

Three ordinances were adopted in 2020 to strengthen multi-modal (walking, biking, etc.) transportation.

- 3-feet Passing Ordinance
 - » Requires at least 3 feet clearance be maintained between a vehicle and bicycle.
- Vulnerable Road Users Ordinance
 - » Provides protections for users of the transportation system outside the safety of an enclosed vehicle, like pedestrians, cyclists, or motorcyclists.
- Complete Networks Ordinance
 - » Requires consideration of all transportation system users for transportation projects. A Complete Networks Checklist was created for the Plan Commission to complete when a land development change is proposed.

East Street Corridor Project

The East Street Corridor Project, completed in 2016, presents recommendations and design solutions to achieve the following general goals:

- Slow down traffic near Falls Park.
- Increase pedestrian access to Falls Park.
- Create a coherent gateway to Falls Park along East Street.
- Improve intersections along East Street.
- Reconfigure East Street to accommodate functional design.

2015 Americans with Disabilities Act (ADA) Transition Plan Update

The Americans with Disabilities Act was passed in 1990 as a step toward the disestablishment of discrimination against individuals with disabilities. ADA Title II requires communities to establish self-evaluations and/or transition plans, as determined by community employee size, for updating public facilities. The Town of Pendleton has a total of twelve (12) public facilities, 86,673 feet of sidewalk, 33 curb ramps, and six (6) signalized intersections that were analyzed for the Transition Plan.

State Street Corridor Study

The 2015 State Street Corridor Study was conducted to identify key opportunities and issues for transportation along State Road 38 / State Street from the western town boundary to the eastern town boundary. The study establishes existing conditions such as traffic volumes, business and parking densities, demographics, non-motorized traffic levels, and crash frequency and severity. Public input is linked to technical analysis to define a vision for the corridor, goals for four distinct focus areas, and priorities for implementation. The document culminates in a proposed cross-section for the entire corridor including access management and multi-modal treatments. Finally, as an extension of the corridor, specific analysis and improvements are identified for the US 36 sub-area including a proposal to realign the US 36 north junction to meet Water Street.

Falls Pointe Traffic Study

The 2014 Falls Pointe Traffic Study was the pre-cursor to the 2015 State Street Corridor Study, focusing primarily on the Falls Pointe Business Park. The study incorporated scenario planning to review land use build-out potential and determine transportation impacts from various levels of growth within the business park. Three potential build-out scenarios for the Falls Pointe Business Park both north and south of State Street are applied to identify the most resilient transportation improvements for maintaining operations and safety. Conceptual traffic configurations between the I-69 west ramps and Heritage Way are included to demonstrate options as the area continues to experience growth.

Among these recent planning efforts, a thoroughfare plan fills the specialized role of determining how roads in Pendleton will be classified, and to what level they will need to be improved in the future. Essentially, it is an exploration of how the future transportation system will change due to projected growth, which will impact how people and goods move from place to place. These conclusions are made by using analytical methods to compare different futures, which are based on current knowledge of the community as well as visioning set forth in previous plans. Public input specific to this plan is used to select preferred future scenarios and prioritize recommendations, to ensure that the plan is in line with community needs.



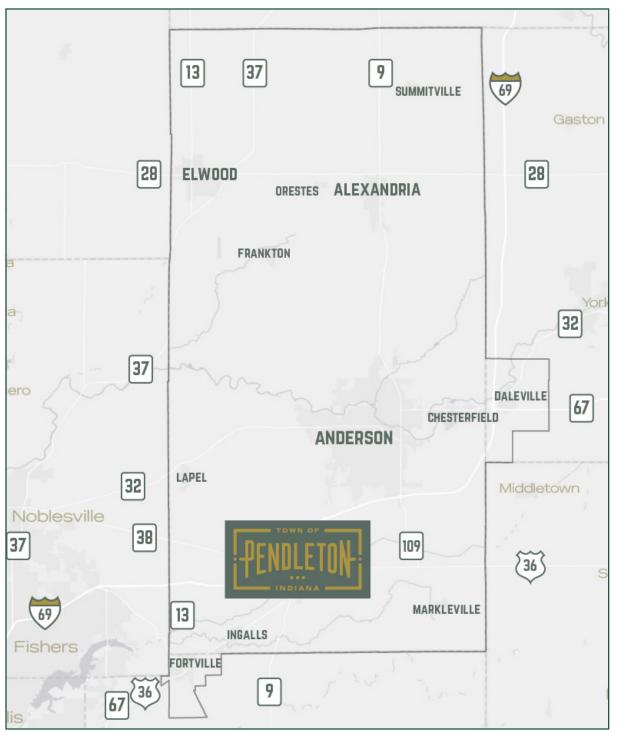
Chapter 2: Context and Background

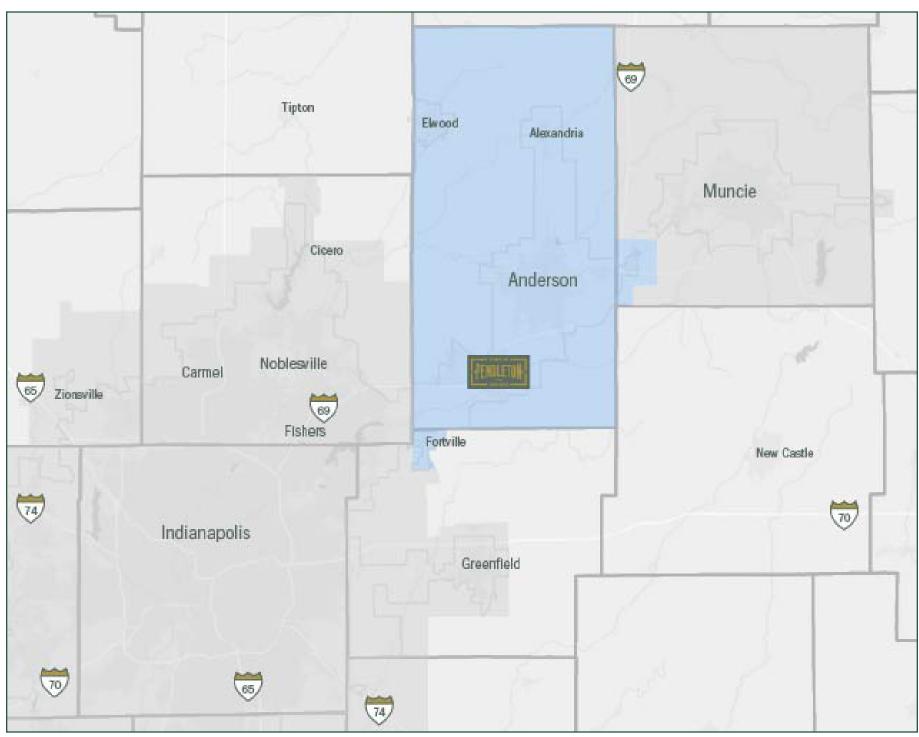
The Town of Pendleton is in southwest Madison County, located approximately 35 miles on the northeast edge of the Indianapolis metropolitan area. Pendleton is included in the MCCOG Metropolitan Planning Area (MPA) and Urbanized Area Boundary (UAB). This provides an opportunity for regional funding opportunities for transportation needs and upgrades on projects that have a regional impact.

Southwest Madison County is beginning to experience growth pressure from Indianapolis and Hamilton County as development continues to spread. Pendleton offers direct access to Indianapolis via I-69 and US 36.

Pendleton's location has been a major factor in its recent growth. Because traffic does not stop at jurisdictional boundaries, it is important to understand the influence that areas outside of Pendleton have on the town itself.

The map to the right shows Pendleton's location within the outlined MCCOG MPA. The map on the next page shows Pendleton's location in relation to the Central Indiana region.

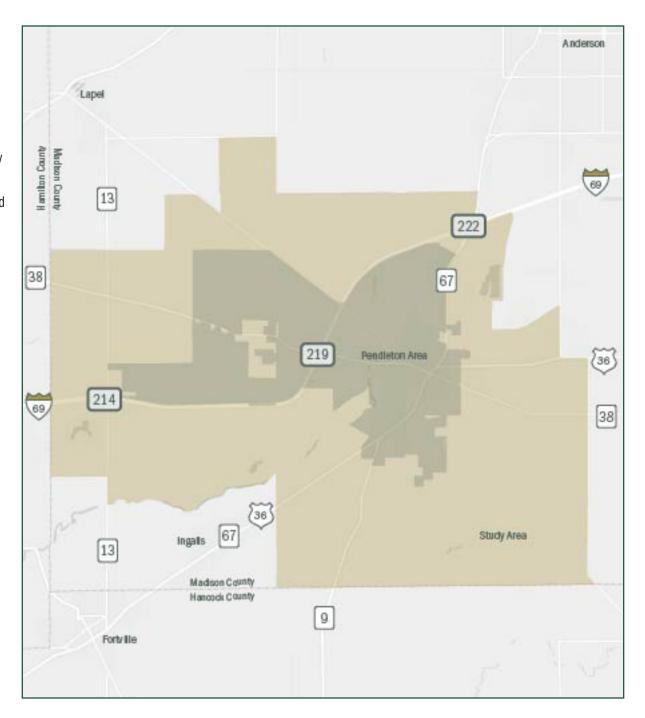




Analysis Areas

Analysis of background information was conducted for two geographic areas: (1) within the existing Town boundary and (2) within a larger study area. The study area extends outward from the existing Town boundary and is generally bounded by CR 400 S / 67th Street to the north, CR 50 W to the east, Madison/Hancock County line to the south, and Madison/Hamilton County line to the west.

The transportation system is not limited by incorporated boundaries. Long-range planning necessitates consideration of potential expansion of the existing jurisdictional boundary of the municipality as new development occurs, services are extended, and additional parcels are annexed into the community. An expanded study area facilitates analysis for consideration as the Town continues to grow.



Demographic Trends

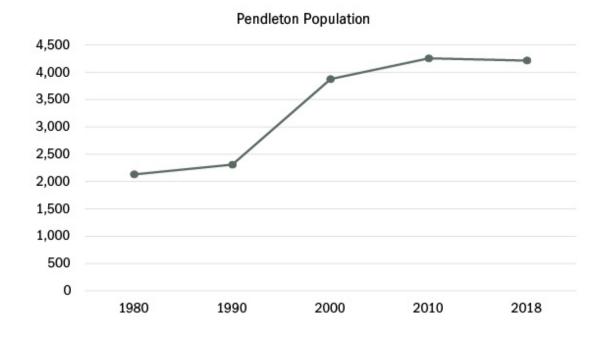
It is important to understand the current and changing distribution of people and activities to identify necessary improvements to a transportation system. Historic trends in population and their characteristics provide a baseline understanding of the people and activities that may utilize a given transportation system. This data informs the transportation needs of a given geography and how the transportation system may be impacted if the same trends continue.

| Popul | lation |
|--------------|--------|
|--------------|--------|

Despite rapid growth from 1980 to 2000, the Pendleton area showed only slight growth from 2000 to 2010 and has since stagnated, according to the Census Bureau. However, the larger study area has shown significant growth continuously since 2010. Due to its location at the edge of suburban Indianapolis, it is expected that growth will move towards Pendleton. Further, recent Town permitting reveals that Pendleton is beginning to experience these growth pressures. There are four subdivisions containing more than 800 lots that are actively developing. Given household sizes in the area, the remaining 696 homes could add approximately 1,670 people once fully occupied, which is expected within the time frame of this plan.

| Pendleton Population | | | | |
|----------------------|------------|--------|--|--|
| Year | Population | Change | | |
| 1980 | 2,130 | - | | |
| 1990 | 2,309 | 179 | | |
| 2000 | 3,873 | 1,564 | | |
| 2010 | 4,253 | 380 | | |
| 2018 | 4,213 | -40 | | |
| 1980-2018 | | 2,083 | | |

| Developing Subdivisions | | | | | | |
|-------------------------|------------|----------------|---------------------|--|--|--|
| Subdivision | Total Lots | Permits Issued | Remaining Inventory | | | |
| Carrick Glen | 235 | 28 | 207 | | | |
| The Falls | 56 | 8 | 48 | | | |
| Pendle Pointe | 123 | 87 | 36 | | | |
| Huntzinger Farms | 405 | 0 | 405 | | | |

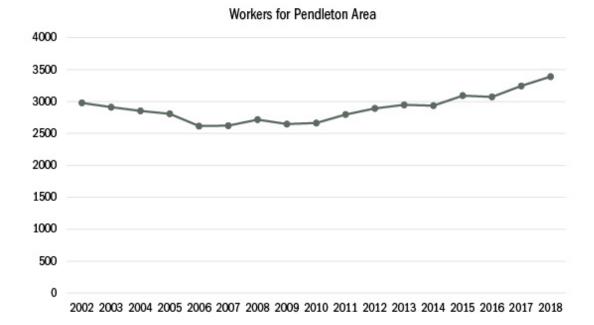


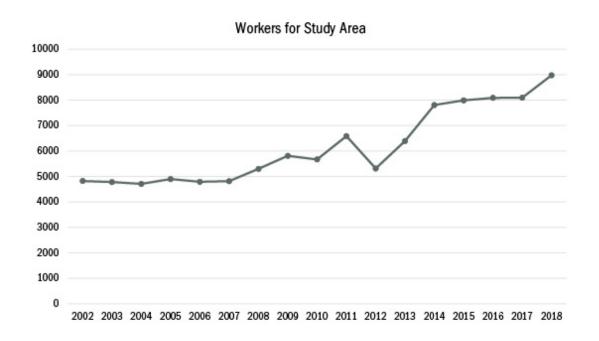
Employment

The number of workers in both the Pendleton area and the larger study area has grown significantly since 2008, despite the loss and stagnation of employment between 2002 and 2008. Both analysis areas had significant growth in the transportation and warehousing industry, with the Pendleton area seeing more growth in the accommodation and food services industry. Both analysis areas also had an increase in employment in the construction industry.

Typically, employment increases are followed by residential developments and then population increases. The employment growth in Pendleton supports the expectation that there will be population growth in future years, though that has not been the case recently.

In addition to reviewing changing employment, occupations have also shifted since 2002. Residents working in the manufacturing industry declined significantly in both the Pendleton area and the study area. More residents are working in the health care and social assistance; administration & support, waste management & remediation; and construction industries.





The Pendleton Area Work Profile table highlights workers employed in Pendleton broken down by industry type. The top three industries to add workers from 2002 to 2018 are:

- Accommodation and Food Services (+181)
- Transportation and Warehousing (+171)
- Health Care and Social Assistance (+89).

The top three industries that lost workers from 2002 to 2018 are:

- Manufacturing (-63)
- Retail Trade (-56)
- Wholesale Trade (-38)

| Pendleton Area Work Profile | | | | |
|--|------|------|--------|------------|
| NAICS Industry Sector | 2002 | 2018 | Change | |
| NAICS Industry Sector | | | Number | Percentage |
| Agriculture, Forestry, Fishing and Hunting | 8 | 18 | 10 | 125% |
| Mining, Quarrying, and Oil and Gas Extraction | 0 | 0 | 0 | 0% |
| Utilities | 0 | 0 | 0 | 0% |
| Construction | 161 | 217 | 56 | 35% |
| Manufacturing | 455 | 392 | -63 | -14% |
| Wholesale Trade | 96 | 58 | -38 | -40% |
| Retail Trade | 272 | 216 | -56 | -21% |
| Transportation and Warehousing | 465 | 636 | 171 | 37% |
| Information | 23 | 29 | 6 | 26% |
| Finance and Insurance | 241 | 274 | 33 | 14% |
| Real Estate and Rental and Leasing | 34 | 16 | -18 | -53% |
| Professional, Scientific, and Technical Services | 77 | 60 | -17 | -22% |
| Management of Companies and Enterprises | 0 | 30 | 30 | 0% |
| Administration & Support, Waste Management and Remediation | 16 | 6 | -10 | -63% |
| Educational Services | 450 | 493 | 43 | 10% |
| Health Care and Social Assistance | 270 | 359 | 89 | 33% |
| Arts, Entertainment, and Recreation | 76 | 48 | -28 | -37% |
| Accommodation and Food Services | 193 | 374 | 181 | 94% |
| Other Services (excluding Public Administration) | 73 | 100 | 27 | 37% |
| Public Administration | 70 | 66 | -4 | -6% |

The Study Area Work Profile table highlights workers employed in the larger study area broken down by industry type. The top three industries to add workers from 2002 to 2018 are:

- Public Administration (+892)
- Transportation and Warehousing (+844)
- Administration & Support, Waste Management and Remediation (+833)

The top three industries that lost workers from 2002 to 2018 are:

- Professional, Scientific, and Technical Services (-76)
- Finance and Insurance (-71)
- Arts, Entertainment, and Recreation (-48)

| Study Area Work Profile | | | | |
|--|-------|-------|--------|-------|
| NAICS Industry Sector | 2002 | 2018 | Change | |
| NAICS illustry Sector | 2002 | 2016 | Number | % |
| Agriculture, Forestry, Fishing and Hunting | 8 | 18 | 10 | 125% |
| Mining, Quarrying, and Oil and Gas Extraction | 2 | 0 | -2 | -100% |
| Utilities | 0 | 0 | 0 | 0% |
| Construction | 299 | 524 | 225 | 75% |
| Manufacturing | 1,216 | 1,715 | 499 | 41% |
| Wholesale Trade | 143 | 316 | 173 | 121% |
| Retail Trade | 286 | 298 | 12 | 4% |
| Transportation and Warehousing | 610 | 1,454 | 844 | 138% |
| Information | 23 | 61 | 38 | 165% |
| Finance and Insurance | 363 | 292 | -71 | -20% |
| Real Estate and Rental and Leasing | 34 | 49 | 15 | 44% |
| Professional, Scientific, and Technical Services | 175 | 99 | -76 | -43% |
| Management of Companies and Enterprises | 41 | 149 | 108 | 263% |
| Administration & Support, Waste Management and Remediation | 142 | 975 | 833 | 587% |
| Educational Services | 450 | 557 | 107 | 24% |
| Health Care and Social Assistance | 275 | 531 | 256 | 93% |
| Arts, Entertainment, and Recreation | 96 | 48 | -48 | -50% |
| Accommodation and Food Services | 218 | 470 | 252 | 116% |
| Other Services (excluding Public Administration) | 86 | 172 | 86 | 100% |
| Public Administration | 355 | 1,247 | 892 | 251% |

The Pendleton Area Home Profile table highlights resident occupations by industry type. The top three industries to add workers from 2002 to 2018 are:

- Health Care and Social Assistance (+135)
- Administration & Support, Waste Management and Remediation (+85)
- Construction (+75)

The top three industries that lost workers from 2002 to 2018 are:

- Manufacturing (-201)
- Retail Trade (-30)
- Finance and Insurance (-29)

| Pendleton Area Home Profile | | | | |
|--|------|------|--------|------|
| NAICS Industry Sector | 2002 | 2018 | Change | |
| NAICS Illustry Sector | 2002 | | Number | % |
| Agriculture, Forestry, Fishing and Hunting | 10 | 12 | 2 | 20% |
| Mining, Quarrying, and Oil and Gas Extraction | 3 | 3 | 0 | 0% |
| Utilities | 6 | 10 | 4 | 67% |
| Construction | 146 | 221 | 75 | 51% |
| Manufacturing | 543 | 342 | -201 | -37% |
| Wholesale Trade | 115 | 117 | 2 | 2% |
| Retail Trade | 359 | 329 | -30 | -8% |
| Transportation and Warehousing | 99 | 109 | 10 | 10% |
| Information | 42 | 28 | -14 | -33% |
| Finance and Insurance | 150 | 121 | -29 | -19% |
| Real Estate and Rental and Leasing | 35 | 35 | 0 | 0% |
| Professional, Scientific, and Technical Services | 111 | 139 | 28 | 25% |
| Management of Companies and Enterprises | 32 | 36 | 4 | 13% |
| Administration & Support, Waste Management and Remediation | 118 | 203 | 85 | 72% |
| Educational Services | 265 | 308 | 43 | 16% |
| Health Care and Social Assistance | 330 | 465 | 135 | 41% |
| Arts, Entertainment, and Recreation | 43 | 42 | -1 | -2% |
| Accommodation and Food Services | 231 | 259 | 28 | 12% |
| Other Services (excluding Public Administration) | 96 | 80 | -16 | -17% |
| Public Administration | 141 | 178 | 37 | 26% |

The Study Area Home Profile highlights resident occupations by industry type. The top three industries to add workers from 2002 to 2018 are:

- Health Care and Social Assistance (+420)
- Administration & Support, Waste Management and Remediation (+220)
- Accommodation and Food Services (+185)

There are only two industries that lost workers from 2002 to 2018 are:

- Manufacturing (-187)
- Information (-17)

| Study Area Home Profile | | | | |
|--|------|------|--------|------|
| NAICS Industry Sector | 2002 | 2018 | Change | |
| NAICS Illustry Sector | | | Number | % |
| Agriculture, Forestry, Fishing and Hunting | 18 | 28 | 10 | 56% |
| Mining, Quarrying, and Oil and Gas Extraction | 5 | 6 | 1 | 20% |
| Utilities | 11 | 24 | 13 | 118% |
| Construction | 281 | 418 | 137 | 49% |
| Manufacturing | 903 | 716 | -187 | -21% |
| Wholesale Trade | 215 | 236 | 21 | 10% |
| Retail Trade | 637 | 694 | 57 | 9% |
| Transportation and Warehousing | 157 | 254 | 97 | 62% |
| Information | 76 | 59 | -17 | -22% |
| Finance and Insurance | 237 | 260 | 23 | 10% |
| Real Estate and Rental and Leasing | 66 | 71 | 5 | 8% |
| Professional, Scientific, and Technical Services | 184 | 285 | 101 | 55% |
| Management of Companies and Enterprises | 57 | 69 | 12 | 21% |
| Administration & Support, Waste Management and Remediation | 219 | 439 | 220 | 100% |
| Educational Services | 408 | 533 | 125 | 31% |
| Health Care and Social Assistance | 539 | 959 | 420 | 78% |
| Arts, Entertainment, and Recreation | 78 | 94 | 16 | 21% |
| Accommodation and Food Services | 377 | 562 | 185 | 49% |
| Other Services (excluding Public Administration) | 161 | 181 | 20 | 12% |
| Public Administration | 241 | 310 | 69 | 29% |

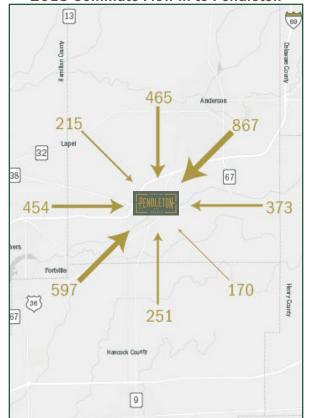
Commuting

Commuting for work adds strain to the transportation system and is the most consistent use of roadways. As the study area has attracted jobs, the number of commuters living outside and traveling into it has increased. Meanwhile, the percentage of resident labor force employed within the area has declined. Commuters are primarily exchanged between Marion, Hamilton, and Delaware Counties, as well as the City of Anderson. The largest growth in commuting from Pendleton is to Hamilton County, while the largest growth in commuting to Pendleton is from Marion County.

The 2002 and 2018 Pendleton Area Commuter Flow graphic illustrate commuting trends for the Town of Pendleton. The dark green arrow on the left side of the graphic shows the number of commuters who live outside of Pendleton but work in Pendleton. The circular arrow shows the number of commuters who live and work in Pendleton. The light green arrow on the right side of the graphic shows the number of commuters who live in Pendleton but work outside of the Town.

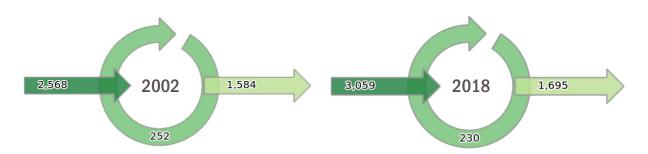
The Workers by Flow graphs for both the Pendleton Area and the larger Study Area show the inflow, outflow, and within commuting trends on an annual basis from 2002 to 2018.

2018 Commute Flow in to Pendleton

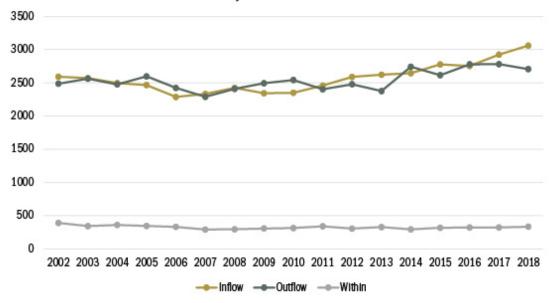


2018 Commute Flow out of Pendleton

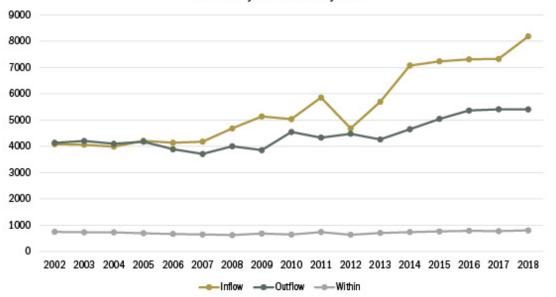


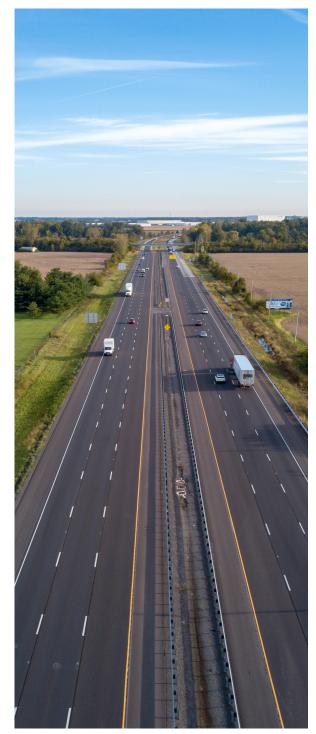


Workers by Flow for Pendleton Area



Workers by Flow for Study Area





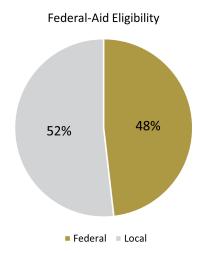
Transportation System

People and goods move in and around Pendleton many ways. The transportation system includes roadways, limited access highways, trails and sidewalks, railroads, and airports. Projects must consider environmental impacts, as well as current system usage.

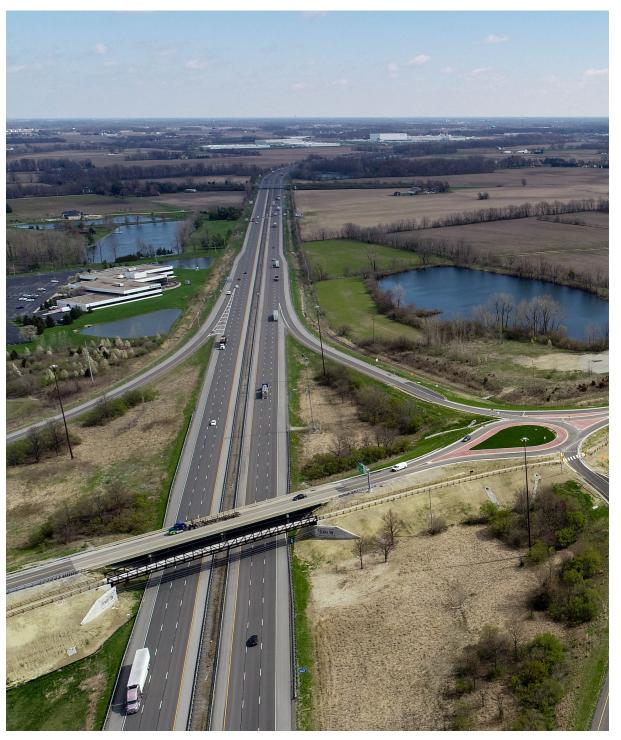
Roadways

Pendleton has over 56 miles of roadway, 48% of which is eligible for Federal funding. These are categorized by functional classification, based on considerations like speed, capacity, and access to adjacent land. The map to the right highlights the federal-aid eligible roadways which are colored gold and local roadways which are colored gray.

The three basic Federal Highway Administration (FHWA) classes are local, collector, and arterial. Each class is differentiated by its balance of mobility and access. Local roads are high access, low mobility while arterials are low access, high mobility. Collector roads are the most flexible classification and may entirely balance access and mobility or may slightly favor one or the other depending on the context.







Limited Access Highways

I-69 provides opportunities for the Town to access regional destinations and capitalize on growth around Exit 219. With these opportunities also comes challenges with the local transportation system. I-69 cuts through the Town of Pendleton, generally running southwest to northeast, with a limited number of crossings for people and goods to move west to east through the Town. SR 38/State Street is the primary east-west cross-town roadway that provides a way to get around the interstate barrier.

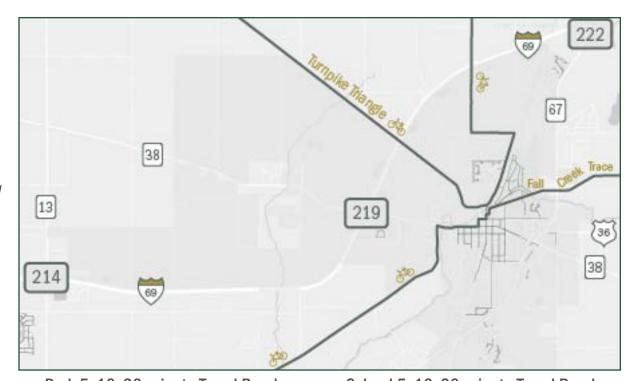
Trails and Sidewalks

Many streets in the downtown area and new subdivisions have sidewalks adjacent to them, though widths vary generally from 4 to 6 feet. There are also several multi-use paths mostly concentrated in Falls Park. Many roads in and around the town are utilized frequently by cycling clubs from Indianapolis and other surrounding areas. For a more in-depth analysis of the trails and sidewalk networks in Pendleton, please review the 2017 Bicycle and Pedestrian Master Plan.

Additionally, some residents utilize golf carts to move around Pendleton. The Town has a local ordinance to allow golf carts to use existing local roads.

Pedestrian Accessibility

The trail and sidewalk network provides access for bicycle and pedestrian trips. Access to both parks and schools was directly analyzed to identify the current condition for pedestrian accessibility. Approximately 2 to 3% of the population can access either a school or park within a 5-minute walk.



Park 5, 10, 20-minute Travel Bands

222

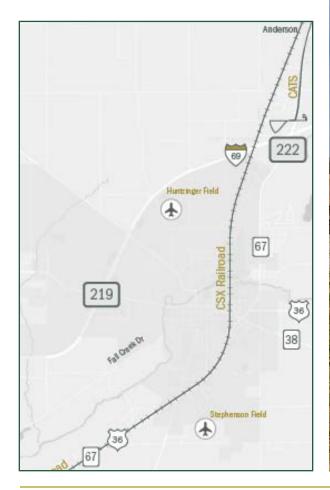
Falls
Park

38



Railroads

A dual lane CSX line travels along the east side of Pendleton and generally parallels the I-69 Corridor. With only three grade-separated crossings in Pendleton, the railroad presents a significant barrier to the road system, while also being a significant asset to the freight system. At-grade crossings throughout the Pendleton area present a significant challenge as traffic is stalled whenever a train passes through the Town. Many of these at-grade crossings present safety concerns due to the height of the tracks obscuring the relatively lower roadway on either side.





Environmental Considerations

There are many environmental considerations for the Town of Pendleton which include but are not limited to topography, soils, surface water, woodlands, and 100-year floodplains. There is a difference in elevation of about 60 feet throughout the town.

Pendleton contains a variety of soils, ranging from very wet to moderately wet soils. Most of these soils, while good for forestry or other agricultural uses, are not well suited to urban development in terms of their ability to support wastewater facilities.

Fall Creek flows through the town from northeast to southwest. The Falls, low head dam, and old swimming pool areas in Falls Park create safety issues for people looking to swim, kayak, or canoe. Smaller streams and ditches such as Prairie Creek are also important surface water considerations for the town. The woodlands within the Town of Pendleton are located primarily on slopes in floodplains along Fall Creek. The map on this page highlights the streams, creeks, ditches, and floodplains in and around Pendleton.



Base Conditions

The regional travel demand model forecasts travel under various assumptions. It is important to understand the base condition before analyzing future conditions. The model uses a base year of 2015. This section summarizes characteristics of the 2015 base condition.

Vehicle Miles Traveled (VMT)

The amount of travel is described by VMT, an estimate of the total miles traveled on roadways within a defined area. For example, a 1-mile segment of road with 100 vehicles per day would be 100 vehicle miles traveled. However, the regional travel demand model does not include the entire transportation network. Local roads are generalized because the focus is on Federal functionally classified roadways, due to significant variation on the local system. Nonetheless, the tool provides insight into the level of travel for Pendleton and the surrounding area.

Under the base condition, the travel demand model estimates over 550,000 VMT in Pendleton or approximately 83 miles per person per day. Note that the per capita estimation is a generalization considering that a portion of travel is for freight and/or business operations that would not be made by a resident.

Travel Time & Distance

It is important to look at travel using both time and distance to illustrate the impacts on people and the transportation network. People are more sensitive to time, while the transportation network deteriorates based on the amount of travel measured by VMT, which is based on distance. In the regional travel demand model, the average travel distance is approximately 10

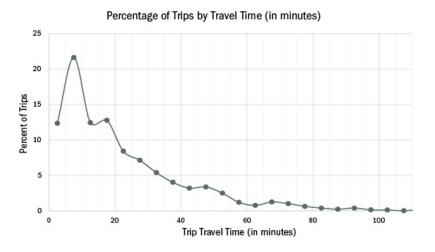
miles, and the average travel time is approximately 22 minutes. As the tables illustrate, nearly half of all trips take less than 15 minutes and are within 8 miles.

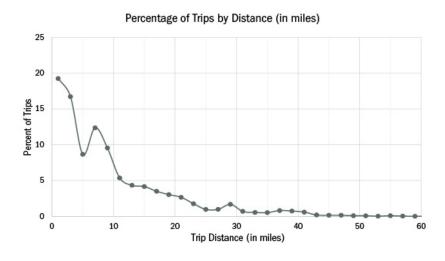
Congested Travel Time

Travel can also be analyzed by the amount of time spent in congestion. Under the base condition, the travel demand model estimates that each person spends just over 15 minutes in congestion each day. This illustrates

a relatively low level of congestion on the Pendleton transportation system on an average day. The primary intersections contributing to congestion are:

- 1. US 36/SR 9/SR 67 & SR 38/State Street
- 2. State Street & Pendleton Avenue



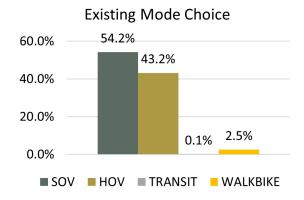


Travel Modes

The travel demand model is designed to approximate the percentage of trips made using four modes:

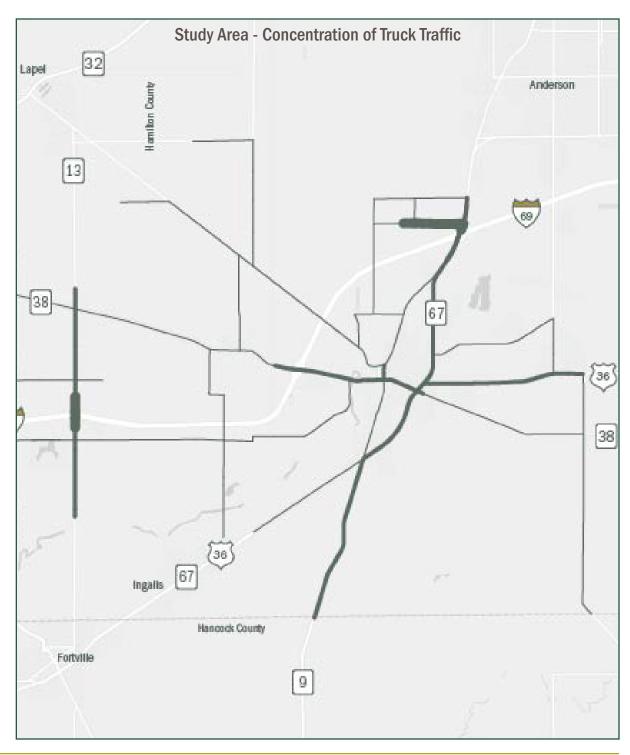
- 1. Single-occupancy vehicle (SOV)
- 2. High-occupancy vehicle (HOV 2+ occupants)
- 3. Transit
- 4. Walk & Bike

Though these percentages can vary significantly depending on the purpose of the trip, (e.g., trips to work are almost exclusively SOV) most trips are taken in a vehicle. Walk and bike represent a relatively small portion of trips (2.5%) but there is room to grow given that nearly 20% of trips taken are within 2-miles. Depending on the availability of bicycle and pedestrian infrastructure, it is possible for walk and bike to take a larger share of trips.



Truck Travel

The primary truck corridors through Pendleton are US 36, SR 67, SR 9, and SR 38 with the highest truck volumes between the US 36 N Junction and SR 9 south of US 36/SR 67. This corridor sees an estimated 700 trucks per day.



Crashes

Between 2008 and 2017 there were approximately 1,634 crashes in the Town of Pendleton, including 7 fatalities. There are multiple methods for analyzing crash data, but due to random variability from year to year, crashes are typically compared across rolling three- to five-year averages. Rolling averages include overlapping ranges of years to capture consistent trends. They produce more stability between analysis periods. The 5-year rolling average crashes graph illustrates a relatively small amount of variation in the number of crashes over time.

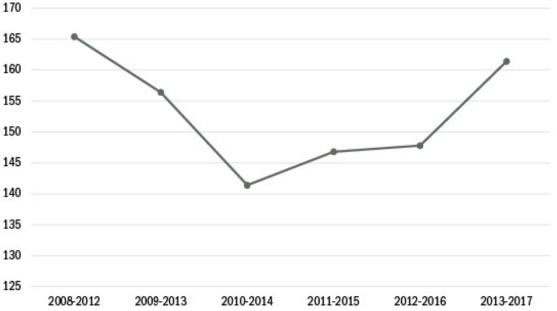
Reviewing crashes by specific roadways and intersections requires accounting for volume as well; where there are more cars, more crashes are expected. The amount of travel, measured by VMT, can be used to calculate expected crash levels. For example, a roadway contributing 50% of the total travel or VMT would be expected to contribute 50% of the total crashes.

Approximately 75% of travel in Pendleton is on federal functionally classified roadways, and 83% of crashes occur on these roadways. Two corridors, listed below, represent the majority of crashes. Three intersections along each corridor that contribute a significant amount of crashes are also highlighted:

- SR 9/SR 67/US 36 50% of VMT, ~44% of crashes
 - » SR 38/State St
 - » US 36 N Junction
 - Pendleton Ave/SR 9 S Junction
- SR 38/State Street 31% of VMT, ~38% of crashes
 - SR 9/SR 67/US 36
 - Pendleton Ave
 - » Enterprise Dr

Local roads constitute approximately 25% of travel and 17% of crashes in Pendleton, Crashes on local roads are generally not concentrated on any one road or at specific intersections. However, CR 300 W contributes a slightly higher percentage of crashes than other local roads. This would be expected to increase as development occurs and travel increases on this road. Two intersections are of particular concern: CR 300 W and CR 850 S; and CR 300W and CR 900 S.





Transportation Improvements

Recent transportation investments in the Pendleton area have contributed to the town's ongoing growth and expansion. INDOT, MCCOG, and the Town of Pendleton have coordinated as partners on many transportation-related projects that have enhanced the local transportation system, as well as regional and multistate travel. Listed below are some of the complete, ongoing, and planned transportation improvement projects over the past 10 years.

SR 38 and State Street Intersection & Corridor Improvement Projects (Complete)

In partnership with INDOT, the Town of Pendleton coordinated to improve safety at intersection of SR 38 and CR 300 W near the Pendleton Heights High School and Middle School campuses. Improvements included a single lane roundabout to slow traffic along SR 38 entering the Pendleton area from the east, as well as new sidewalks, ADA improvements, multi-use paths (side paths), pedestrian signage, stamped concrete crosswalks, and pedestrian-scale lighting.

Several other enhancements were also pursued including new pedestrian infrastructure to connect the school campuses to the existing pedestrian system west of the US 36/SR 9/SR 67 Corridor. New sidewalks were added to fill gaps in pedestrian connectivity. Pedestrian-actuated signals, ADA improvements, multi-use paths (side paths), pedestrian signage, and crosswalks were installed. This project also included the first roundabout in Pendleton.

I-69 Corridor Expansion Project (Complete)

In 2017, INDOT completed the second phase of a four-phase interstate corridor expansion project. This project focused on the 15-mile segment of I-69 between Exit 205 at SR 37 in Fishers to Exit 219 at SR 38/State Street in Pendleton. A third travel lane was added in the median in each direction, which required rehabilitation of existing bridges, pavement, and drainage.

More recently, INDOT completed similar improvements in the third and fourth phases of this project from Exit 219 at SR 38/State Street to the Exit 234 at SR 32/SR 67 near Chesterfield & Daleville. The project included the construction of 8.4 miles of additional travel lanes in the median, more than 6.5 miles of pavement maintenance, and rehabilitation of existing bridges.

Expansion of the interstate has made travel to and from the Indianapolis metro region easier. As a result, Pendleton can expect to see more car travel.

Community Sports and Wellness Complex (Complete)

The health and fitness complex, located along South Heritage Way, was constructed in 2020. The complex provides a variety of facilities including basketball, tennis, and gymnastics, as well as childcare services, a café, and pro shop.

More importantly, this project included several improvements to transportation infrastructure to facilitate access to the facility, and to further expand the local bicycle and pedestrian network. Those improvements include an extension of South Heritage Way along the property's frontage, the construction of sidewalks, and an upgrade to the intersection of South Heritage Way and Pioneer Trace.

I-69 Exit 219 Area Improvement Project (Complete)

In a partnership with INDOT, the Town of Pendleton recently completed the construction of a new bicycle and pedestrian bridge over I-69 at the Exit 219 Interchange at SR 38/State Street. The single-span bridge accommodates two-way pedestrian and bicycle traffic and is equipped with lighting and signage to enhance safety.

The bridge was part of a larger project led by INDOT to upgrade the I-69 Exit 219 Interchange on and off ramps from signalized intersections to roundabouts. In addition to this improvement, the Town of Pendleton upgraded the intersection of Heritage Way with a single-lane roundabout and changed the intersection of Enterprise Drive to a RIRO (right-in/right-out) intersection. The improvement acts as a gateway to the community. It addresses traffic congestion and safety and establishes an opportunity for future pedestrian and bicycle connections from development near the Interchange to the downtown area, as well as to residential development to the west of I-69.





US 36/SR 9/SR 67 Corridor Improvement Projects (Ongoing)

In 2016, INDOT began adding travel lanes along US 36/SR 9/SR 67 between I-69 Exit 222 and the south junction of SR 9 with US 36/SR 67. Included in this series of expansion projects were a bridge reconstruction project at Prairie Creek along SR 9, and a wetland mitigation project to address drainage along the Prairie Creek watershed. Additionally, improvements were made at the Huntsville Road/Falls Park Drive intersection. Other planned work includes intersection improvements at the north junction of US 36 with SR 9, SR 38/State Street, and Huntzinger Boulevard.

Access management will also be addressed in the heavily congested area between the north junction of US 36 with SR 9, SR 38/State Street, and Madison Avenue/Angle Road intersections. A landscaped median will restrict left turning movements throughout the area. Additionally, this project will continue the pedestrian connectivity improvements to connect the Pendleton Heights campuses and the suburban commercial areas along US 36/SR 9/SR 67 to the historic core of

Pendleton, as well as the Pendleton Community Public Library, Alvin D. Brown Swimming Pool, Pendleton YMCA, and Falls Park. Expansion of pedestrian infrastructure is a step towards protecting vulnerable road users in this corridor, where crashes are frequent.

Community Bikes Bike Share Program Expansion (Ongoing)

In 2019, the Community Bikes Program in Anderson expanded to Pendleton by providing bicycles at three locations within Pendleton: the Pendleton Community Public Library, Falls Park, and downtown near the intersection of Pendleton Avenue and State Street. In 2021, additional bike racks were installed in Falls Park near the new bathroom building, as well as at the New Community Sports and Wellness building.

The program allows individuals to check out a bicycle for a certain fee and then must return the bicycle to the docking station where they checked out the bicycle. This type of program is important for people who may not have their own bicycle or for people visiting Pendleton.

Pendleton Business Park Trail Project (Planned)

The proposed project will expand the Pendleton Trail System through the development of additional sidewalks, multi-use paths (side paths), and shared-use bicycle corridors to complete connections to the existing sidewalk system that connect the historic downtown to the Pedestrian Bridge over I-69 and to the existing trail (multi-use path) system at Falls Park and adjacent pedestrian destinations.

While the primary focus of this trail project will be the installation of a continuous multi-use path (side path), new sidewalks and on-street shared bicycle use corridors will also be added to fill any gaps in pedestrian and bicycle connectivity and provide transitions from the multi-use path (side path) infrastructure. Additionally, the project will include pedestrian-actuated signals, ADA improvements, pedestrian signage, pedestrian-oriented lighting, crosswalks, and the installation of at least two pedestrian bridges, one being the installation of a rehabilitation historic, Iron Through-Truss Bridge acquired by the Town of Pendleton from Fountain County via INDOT in 2007 to provide a pedestrian and bicycle crossing over Fall Creek near Fall Creek Drive.

67th Street Extension Project (Planned)

In 2003 and 2005, the City of Anderson received a series of federal earmarks to complete an economic development corridor paralleling the I-69 Corridor. The proposed project includes a four-lane divided roadway with a median for access control and adjacent multi-use paths from the 67th Street and Layton Road/CR 400 W intersection in Anderson to SR 38 just west of the I-69 Exit 219 interchange in Pendleton. Though the project is being led by the City of Anderson, the Town of Pendleton is an important partner and will be impacted by the connection.



Chapter 3: Public Participation

The Pendleton transportation system serves a variety of users, ranging from residents to workers to visitors. It is vital to involve as many users in the planning process as possible to identify challenges, prioritize improvements, and align investments with need. While the COVID-19 pandemic required a significant shift in the public participation approach, every effort was made to involve community members in the planning process.

The Pendleton Thoroughfare Plan is developed focusing on community input and guided by the formation and active participation of a Steering Committee. Input gathered from two public surveys informed technical analysis and scenario development, as well as establishing the vision and goals for the Plan. In addition to a formal public hearing, the final document incorporates comments received from a public workshop that was held in conjunction with the Unified Development Ordinance (UDO) development process.



Steering Committee

A Steering Committee plays a vital role in the planning process, balancing technical analysis, while ensuring the plan aligns with the desires of the community. To accomplish this, the project team sought to identify stakeholders that represented various groups of people within Pendleton Area.

In coordination with Town staff and the Plan Commission, a Steering Committee of 15 people was formed to collaborate with the project team and lead the planning process. The group provided feedback for the overarching vision, methodology, project prioritization, and public input approach.

The Pendleton Thoroughfare Plan steering committee includes representatives from the following community groups:

- Pendleton Town Council
- Pendleton Town Manager
- Pendleton Planning Department
- Pendleton Street Department
- Pendleton Police Department
- Pendleton Fire Department
- Pendleton Redevelopment Commission
- Pendleton Plan Commission
- South Madison School Corporation
- Pendleton Business Association
- Corporation for Economic Development
- Citizen Representative (appointed by Plan Commission)

Public Engagement Process

The first Steering Committee meeting was held on March 31st of 2020. Below is a chronological summary of public participation engagements and the general highlights of the responses received.

Steering Committee Meeting #1 - Kick-off

Steering Committee members were introduced to the project team, each other, and the project itself.

Steering Committee Meeting #2 - Vision Crafting

The Comprehensive Plan Transportation goal was reviewed, being the basis for the Thoroughfare Plan vision statement. The Steering Committee suggested modifying the term "alternative transportation" due to its vagueness. The committee also decided the vision statement should reference the funding of transportation projects.

Steering Committee Meeting #3 - Vision Survey

A draft of the Vision Survey was reviewed. The steering committee provided feedback to ensure questions were clear, concise, and addressed community concerns. The committee also discussed the connection between growth and the transportation system generally.

"With the amount of development in our foreseeable future, the Thoroughfare Plan will either support and manage growth properly or be our Achilles' heel." – Steering Committee Member Comment

Vision Survey

The Vision Survey collected valuable input for the development of a vision statement to help guide the Thoroughfare Plan. The survey also identified general transportation issues that should be addressed. The survey was open for the month of September 2020 and a total of 352 responses were collected. The results from the survey echoed the values and vision previously outlined in the Comprehensive Master Plan in 2018, while highlighting the importance of system maintenance, safety, and aesthetics.

Vision Statement

The draft vision statement was based on the 2018 Comprehensive Plan transportation goal, but the Vision Survey responses indicated some missing elements. The project team worked with the Steering Committee to further refine the vision and integrate the comments from the Vision Survey. As indicated previously, the use of the term "alternative transportation" was modified to "walking and biking" to ensure clarity and "financial sustainability" was directly added. The result is the final version of the vision statement:

"Pendleton will provide a safe, efficient, and well-connected transportation system that supports walking, biking, historic preservation, and financial sustainability."

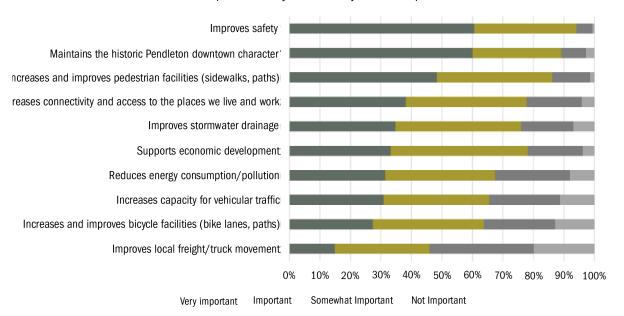
Highlight - Which criteria do you think should be a priority when selecting transportation projects?

Results from this question indicated that the two biggest priorities were, improves safety (61%) and maintains the historic Pendleton downtown character (60%). Though pedestrian facilities were the third highest priority, bicycle facilities were second to last. Finally, improving local freight and truck movement, while highlighted as a concern in previous planning efforts, was the lowest ranking option. These results illustrate that many respondents of the survey want to see transportation projects that improve safety and connectivity while preserving the historical character of Pendleton's downtown.

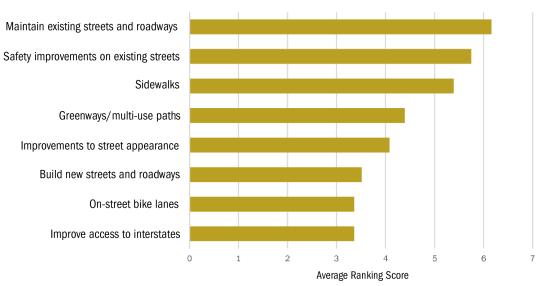
Highlight - Please specify any intersection or roadway segments you avoid and why.

SR 67 was a common roadway to avoid, along with the intersections of SR 67 and SR 38, Water Street, and East Madison Avenue. The most common locations that respondents chose to avoid include: the downtown, high school, and McDonald's on Enterprise Drive. Frequently, the reason given for avoiding these areas was congestion or safety. If improvements are to be effective as Pendleton grows, projects must address these concerns.

Transportation Project Criteria by Level of Importance



Rank the Following Projects by Importance





Visual Preference Survey - Ranking Arterial, Collector, and Local Roads

A visual preference survey is a tool to help determine design components that positively contribute to a community's overall image like development types, housing densities, and street elements. Participants view and rate comparable images through this method using their intuitive understanding of design.

For each type of roadway (local, collector, and arterial), respondents were asked to rank three images. The images selected for this survey included various street elements, design and organization of those elements, and the inclusion of trees and landscaping to identify the preferences of the respondents for each classification. Rankings from all participants were then combined to identify images that scored the highest, as well as their associated design elements. Upon completion of the exercise, respondents also had an opportunity to state why they ranked in the order that they chose.

Arterial Roads

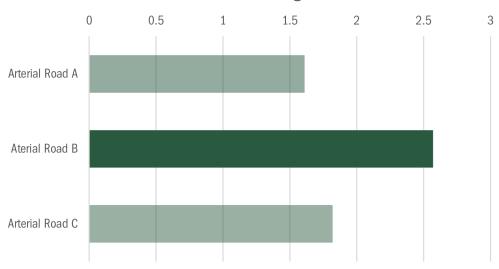
The preferred option was chosen most often for its functionality, aesthetics, and safety. Respondents indicated concerns about safety and operations for option A given the lack of designated turn lanes and sidewalks.







Rank the Arterial Images Above



Collector Roads

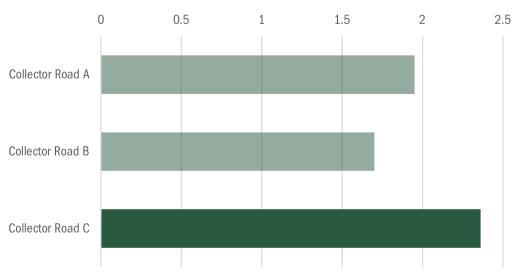
Following the justification for arterial roads, most respondents mentioned functionality, aesthetics, and safety as reasons for the preferred option. Some respondents noted that options A and B were still effective in guiding traffic flow because they had parking and bike lanes, though they are not as aesthetically pleasing.







Rank the Collector Images Above



Local Roads

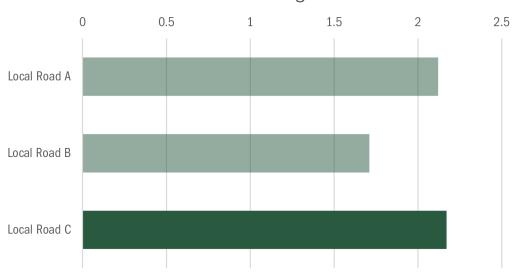
Respondents noted that option A includes a sidewalk buffer, while option C has an attractive mix of sidewalk and greenery. Some respondents noted that there were very different applications of each option, thus supporting the inclusion of a broad mix of options in development types within the town.







Rank the Local Images Above



The Build-a-Street Activity:

The thoroughfare planning process identifies standard right-of-way widths to be preserved for roadway reconstruction and expansion projects, as well as new roadways and trails. In the Build-a-Street activity, participants work together to combine street elements and build their "ideal" streets for different contexts such as commercial, residential, and industrial. Typically, this activity is a facilitated discussion designed to drive the group towards a consensus. This activity pushes participants to consider the roadway's many uses beyond what occurs inside of their vehicle. In addition, it is an educational tool for visualizing how street elements interact, illustrating the nuances of roadway design while emphasizing the importance of supporting community character.



Steering Committee Meeting #4 - Cross Section Development

Using the results from the Vision Survey visual preference component, the Committee participated in a digital version of the build-a-street activity. This activity is applied to decide on elements to be included in street cross-sections for each functional classification. A minimum sidewalk width was discussed in-depth, with the preferred standard being five to six feet.

Steering Committee Meeting #5 - Future Transportation Survey

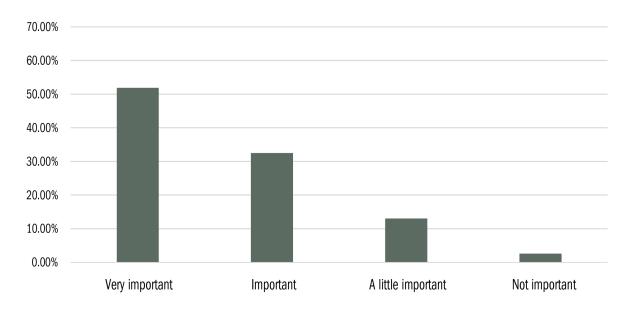
The committee reviewed a draft of the Future
Transportation Survey. Committee members
recommended a separation of natural and agricultural
land impact considerations, as well as the inclusion of
stormwater / drainage issues throughout the survey.
Discussion focused on growth and development
densities and location.

Future Transportation Survey

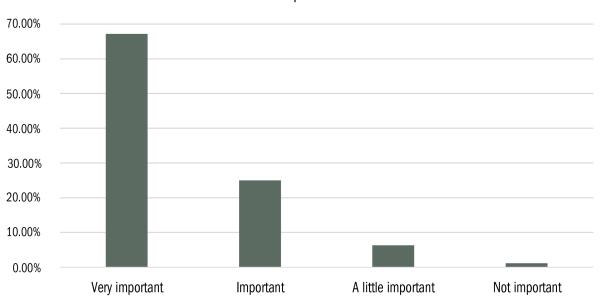
A second survey was developed to guide scenario planning efforts. Its intent was to identify community concerns and opportunities when considering the impact of growth. The survey was open from February 3, 2021, until March 8, 2021, and a total of 268 responses collected.

While the Town of Pendleton aims to plan for future growth from people and jobs moving to the area, respondents indicated that they are more concerned about the potential loss of assets such as agricultural and natural lands because of uncontrolled growth and development. Respondents also indicated a preference to concentrate development near the interstate and US 36 corridors and noted the importance of expanding sidewalk and trail infrastructure to connect to new developments. Overall, the findings from this survey aligned closely with the Vision Survey responses, further revealing a preference for prioritizing current facility and pedestrian network investments.

How important is it to protect agricultural lands from growth and development?



How important is it to protect natural/green spaces from growth and development?



Highlight – Where should investments be made in Pendleton's transportation system?

Results from the survey showed the response with the highest collective ranking was road and infrastructure maintenance, followed by safety improvements. Facility maintenance and safety were common themes throughout the public engagement process.

Highlight – If you had \$100 to invest in transportation improvements, how would you allocate funds?

The \$100 question challenges respondents to allocate \$100 of hypothetical funding into 8 categories, simulating real-world constraints. Following trends in both the Vision Survey and previous responses within the Future Transportation Survey, sidewalks and maintenance consistently received the highest percentage of funding while bike lanes received the lowest.

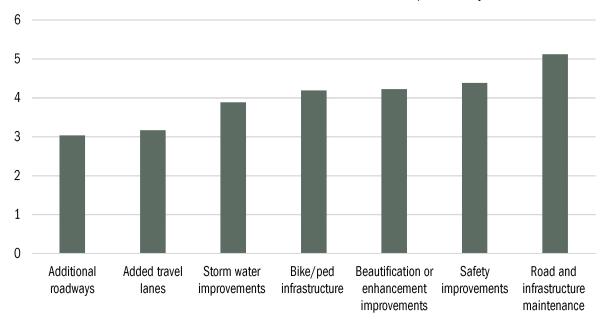
Steering Committee Meeting #6 - Scenario Planning

The Future Transportation Survey responses were compared with scenario output reports to identify transportation improvements and recommendations.

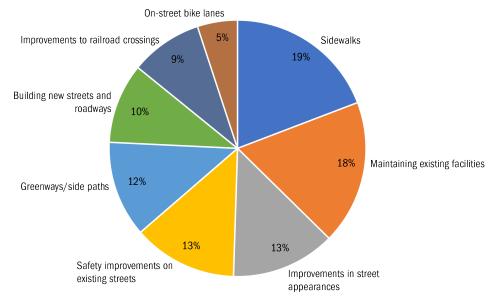
Steering Committee Meeting #7 - Draft Plan Overview

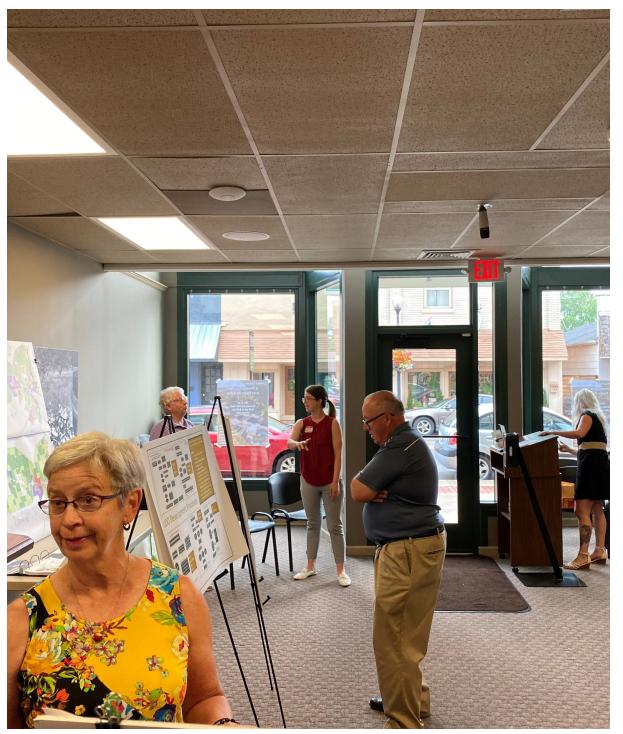
The draft document was presented with a focus on the recommendations and discussing how they should be prioritized. Before Meeting #8, members were asked to conduct further review to identify if any other items might be missing from the final recommendations.

Where should investments be made in Pendleton's transportation system?



If you had \$100.00 to invest in transportation improvements, how would you allocate funds?





Public Workshop

A joint public workshop was held to gather feedback about the Thoroughfare Plan and Unified Development Ordinance (UDO) draft documents. The public was asked to review both draft documents, ask questions about the planning process, prioritize the recommendations in the Thoroughfare Plan, and identify any missing elements that should be included in the plan.

The public workshop was held at the Pendleton Town Hall and was set up as an open house, gallery style public meeting. Poster boards, draft documents, and staff discussion helped inform the public about the UDO and Thoroughfare planning processes.

Implementing the Bicycle and Pedestrian Master Plan, continued road maintenance, and funding a sidewalk/ trail program were the top action items the public identified as their top priorities.

Steering Committee Meeting #8 - Recommendation Prioritization & Next Steps

The final meeting of the planning process shifted the focus to implementation of the plan. The list of final recommendations was reviewed and sorted by immediate, short, medium, and long-term and then prioritized within those groups.

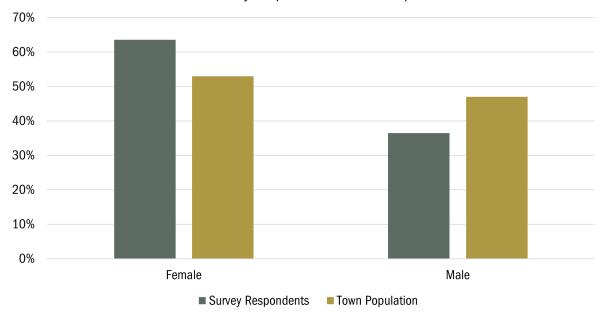
The public participation process ensures people have a voice in the Thoroughfare Plan and how Pendleton's transportation system is shaped between now and 2045. It is important to keep the public involved in the planning process as priorities and opinions change. As Pendleton continues to grow and evolve the vision should evolve to continue guiding future transportation decisions.

Survey Demographics

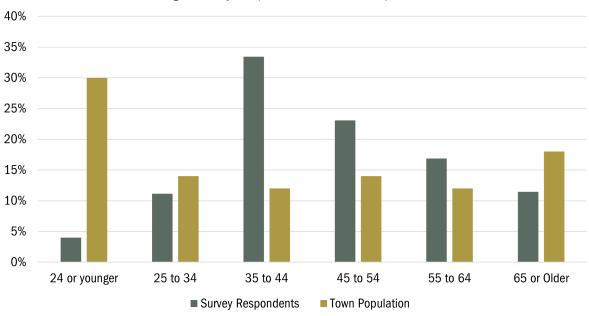
Survey responses are compared to the most recent American Community Survey (ACS) data from 2018 for the Town of Pendleton. This comparison provides insight on who is being underrepresented in the planning process and public input. All survey data submitted remains anonymous. The demographic data reviewed here was extracted from the Pendleton vision survey, future transportation survey, and public workshop.



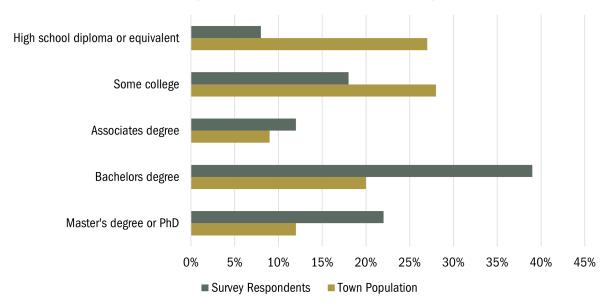
Gender: Survey Respondents vs. Town Population



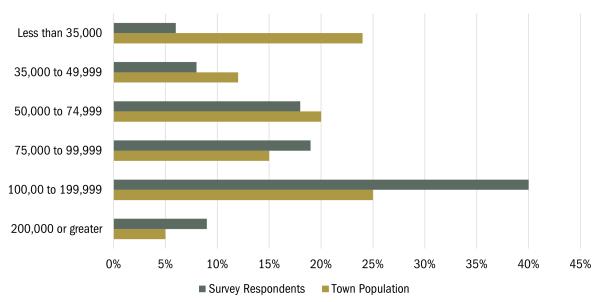
Age: Survey Respondents vs. Town Population















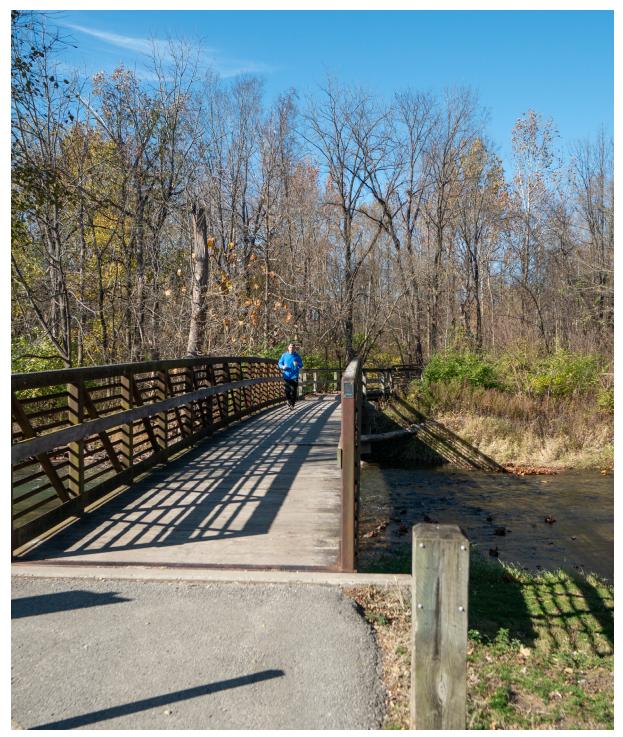
Chapter 4: Scenario Planning

Scenario planning is an analytical tool that can better prepare us for what lies ahead by testing various future alternatives. More specifically, scenario planning looks at how projects, programs, and policies may react under various conditions. Scenario planning departs from traditional long-range planning techniques, which often exclusively focus on projections based on current trends and leave little room to consider new possibilities or unexpected challenges.

The process of developing future scenarios is not a one-size-fits-all approach; instead, it is a scalable process that can create a better understanding of emerging issues or build consensus around policy changes. All scenario planning processes include at least one trend scenario, often called a baseline scenario, with which to compare other scenarios with different futures. The baseline scenario typically reflects current policies, plans, and community values. Comparing scenarios can illustrate what actions are needed to achieve a more desirable future.

The general method of scenario planning is:

- Use scenarios to compare interactions between multiple factors such as transportation, land use, and economic development.
- Analyze how different land use, demographic, or other types of scenarios could impact transportation networks.
- Identify possible strategies that lead a state, community, region, or study area toward achieving elements of the preferred future.
- Engage the public throughout the process.



Scenario Planning Process

The overarching scenario planning process aligns with the MCCOG regional metropolitan transportation plan (2045 inMotion MTP), as well as the Pendleton Comprehensive Plan, to further utilize the MCCOG travel demand model (TDM). The TDM forecasts values for 2020, 2025, 2035, and 2045 for an area encompassing all of Madison and Hamilton Counties, the northeast section of Marion County outside of I-465, the section of Hancock County north of I-70, and portions of Delaware County surrounding the Town of Daleville, with sensitivity to regional travel in approximately 15 counties of Central Indiana.

1 - Direction

Direction comes from the planning process and public input forming the plan's vision statement:

"Pendleton will provide a safe, efficient, and well-connected transportation system that supports walking, biking, historic preservation, and financial sustainability."



2 - Elements

Scenario planning analyzes various elements that impact the analysis area like demographics, economics, politics, health, transportation, environmental trends, and land use. A trademark of scenario planning is identifying land development patterns to illustrate what future growth might look like on the ground. The elements used to create the Pendleton Thoroughfare Plan scenarios include:

- Industry Concentrations
- Population Projections
- Employment Projections
- Land Development Patterns

While each element represents a unique consideration, they are interconnected. Combining these elements creates different scenarios to identify priorities, recommendations, and investments connecting where we are to where we want to be.

Industry Concentrations

Each industry type has different transportation needs. Therefore, the overall industry concentration can significantly shift infrastructure investment priorities. Using historic industry trends, the shifting of national industries, and the Exit 219 Master Plan Market Analysis, several possible paths are assumed for the future distribution of employment.

Current conditions for industry types are centered around transportation, warehousing, and logistics. The expansion of I-69 has led to this growing industry along the undeveloped (greenfield) land around interstate interchanges. To explore divergences from the current trend, different potential scenarios are formulated with very different industry types.

- One scenario focuses on entrepreneurial businesses and supposes the decentralization of service work leading to the growth of small businesses.
- Another explores the impact of connected and autonomous vehicles, with the technology industry playing a large role in the area as well.
- A third scenario uses assumptions from the Exit 219 Master Plan Market Analysis, which identifies logistics with a mix of office and retail as the best industries for Pendleton to pursue around Exit 219.



Population & Employment Projections

Projections for population and employment change are the result of demographic, socioeconomic, and land use models. Models generate expected population and employment levels, which are then refined based on local expertise from professionals such as real estate developers, planners, and engineers. Each of these models uses past trends to inform projections. However, they are increasingly limited in accuracy the further the projection is made from current day. Projections estimate population and employment growth to 2045.

*Each scenario has a unique approach to population and employment growth allocation. Due to the nature of allocation at interstate interchanges and the extent of the study area, the Status Quo scenario, while representing the lowest growth rates regionally, has higher levels of growth within the study area than the medium growth scenarios. Looking at the Pendleton area illustrates the different level of local growth more clearly.

| Comparison of 2045 Projections for Study Area | | | | | | | |
|---|-----------------|------------------|--|--|--|--|--|
| Total Total Population Employs | | | | | | | |
| Base | 16,154 | 6,864 | | | | | |
| Low Growth* | 23,432 (+7,278) | 14,858 (+7,994) | | | | | |
| Medium Growth | 19,675 (+3,521) | 10,639 (+3,775) | | | | | |
| High Growth | 25,850 (+9,696) | 22,104 (+15,240) | | | | | |

| Comparison of 2045 Projections for Pendleton Area | | | | | | | |
|---|-------------------------|----------------|--|--|--|--|--|
| | Total Employment | | | | | | |
| Base | Population 7,015 | 3,494 | | | | | |
| Low Growth* | 9,519 (+2,504) | 6,905 (+3,411) | | | | | |
| Medium Growth | 10,869 (+3,854) | 7,272 (+3,778) | | | | | |
| High Growth | 13,033 (+6,018) | 9,870 (+6,376) | | | | | |



Land Development Patterns

Development patterns define how available land is utilized for residential, employment, and other purposes based on demographic, economic, political, and geographical conditions. Two development patterns are considered for creating scenarios:

Roadway corridor

This development pattern represents a future where development mainly occurs along major roadways like I-69, US-36, SR-9, and SR-13 on previously undeveloped agricultural land (also known as greenfield). Due to a lack of utility infrastructure on greenfields, the cost of utility expansions may be a concern in scenarios with this type of land development pattern.

Infill & Redevelopment

This development pattern represents a future where development is integrated into the existing built environment by building on vacant parcels in urban or suburban areas. Land uses are intensified, resulting in increased densities. These areas are already served by

public infrastructure and utilities. This development pattern focuses on better use of existing land or parcels and provide a more efficient economic return to the community. Since this type of land development pattern is uncommon it is typically more challenging to accomplish.

Combining Elements

For this stage of analysis, all elements are combined to create distinct scenarios. It is important to understand these combinations, how they evolve, and how they impact the transportation system. The project team adapted three scenarios from the 2045 inMotion Planning Process and worked with the steering committee to develop a fourth local scenario. Each scenario paints a different future for the region and their names generally represent the combination of elements that define the scenario. Thus, the final four scenarios are:

Status Quo

Status Quo is the baseline scenario, meaning that it extrapolates current assumptions into the future. Current projections for Pendleton indicate slow growth in population and steady growth in employment. The location of Pendleton's annexations, as well as the business park, indicate that most development will occur on the west side of the town along the I-69 corridor.

To support manufacturing and logistics growth, as well as transportation use focused on personal vehicle travel, Road Corridor development emerges as the primary pattern. An aging population represents the predominant demographic change, consistent with current conditions in the region, and further contributes to the slower population growth rate.

| Comparison of | Final Scenarios | | | |
|---------------|---------------------------|-----------------------------|--|---|
| | Status Quo | Investing in Place | Connected World | Local Land Use Plans |
| Growth | Low | Medium | High | Medium |
| Industry | Manufacturing & Logistics | Small Business | Tech | Logistics with some Office/ Retail |
| Development | Roadway Corridor | Infill & Redevelopment | Mix of Roadway Corridor and Infill & Redevelopment | Roadway Corridor |
| Miscellaneous | Aging Population | Increase in walk/bike trips | Telecommuting increases, Driverless cars (CAVs), Increase in online shopping (small truck traffic increases), Increase in shared mobility services (vehicle ownership decreases) | Single-Family residential units dominate with some Multi-Family units, Little office space but some retail space, Mostly industrial land uses with some flexible workspaces |

Investing in Place

Investing in Place focuses on redevelopment in existing downtown areas. In downtown Pendleton, small businesses are already an important force for redevelopment. By repurposing existing buildings, they have attracted new commerce to the historic downtown. Infill & Redevelopment is assumed to be the primary development pattern in this scenario, as it supports small business growth. Additionally, the transportation system focuses on walking and biking improvements because destinations are closer to one another. Assuming successful attraction of businesses and the development of housing stock, the growth projection used is a medium level to simulate increasing rate of attraction from the Indianapolis metropolitan area.

Connected World

Connected World requires the most significant changes because of the impact of connected and autonomous vehicles (CAVs), more commonly known as 'driverless cars'. Here, roadway corridor development is the focus, but some infill development is also included to account for existing parking lots that are no longer needed. In this scenario, the study area sees greater population growth because it is well placed for an easy commute to Indianapolis and commute time is no longer as much of a barrier.

Due to changes in the local and regional economy with the addition of electric cars and stations, commuters can expect to carpool or rideshare, to conduct work on their way to their place of employment or to telecommute more regularly. The dominant industry under this scenario also shifts to technology as the local economy adapts between now and 2045. In addition, electrified CAVs are expected to result in emission reductions and online shopping is expected to lead to more small truck traffic.

Local Land Use Plans

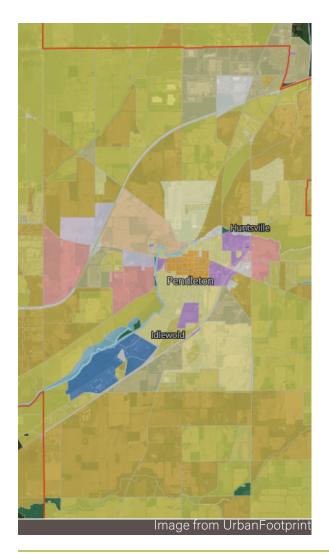
The Local Land Use Plans scenario relies heavily on local conditions and future growth around Exit 219. This scenario captures what the Town of Pendleton is currently planning for in the future. The Exit 219 Master Plan Market Analysis was used in conjunction with the Pendleton Comprehensive Plan to determine future land use and transportation assumptions. The growth projection is medium, the same as Investing in Place. However, in this scenario the allocation of people and jobs is concentrated around Exit 219.

To support logistics and office/retail growth, Roadway Corridor is used as the primary development pattern. Interstate 69 and the undeveloped land around Exit 219 presents the Town of Pendleton the opportunity to capture future growth that continues to extend outward from the Indianapolis metropolitan area.

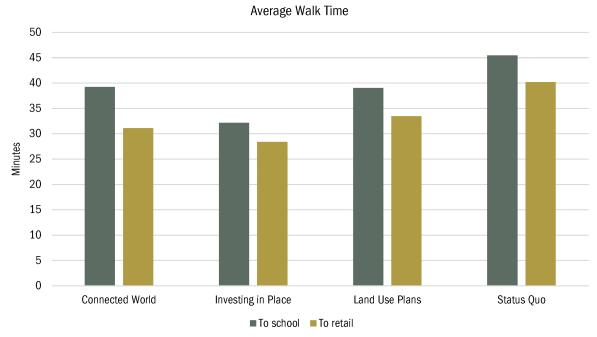


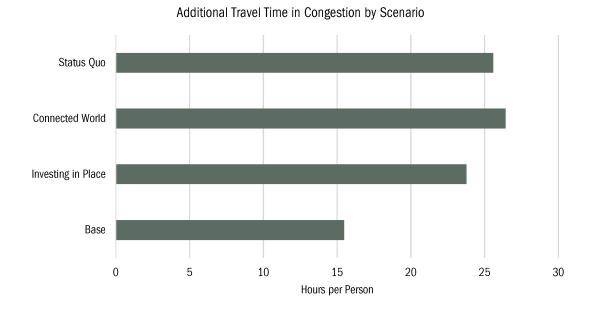
3 - Analysis

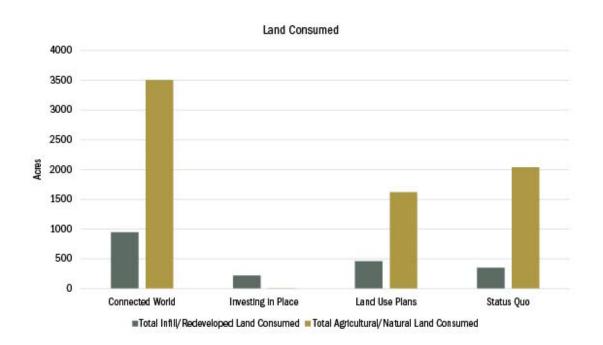
Different analysis measures were used to compare scenarios. These measures illustrate how certain scenarios align with the public input received as part of the planning process. The following graphs show how scenarios compared across multiple metrics.











Project Analysis

Proposed projects were analyzed under the various scenarios to isolate expected system improvements and develop priorities for the final recommendations.

North Heritage Way

North Heritage Way was modeled with one travel lane in each direction, with a two-way left turn lane in the center and side paths on the perimeter of the roadway. The North Heritage Way intersection with Old SR 132 was modeled with a roundabout or a four-way stop for each scenario. The roundabout results in reduction in delay compared to a four-way stop, an operational improvement. The overall level of traffic expected, across all scenarios, is low enough that a traffic signal would not be necessary if a roundabout were installed.

In addition to analyzing the intersection improvement, scenarios were modeled with and without the proposed North Heritage Way extension project to determine the impact on congestion within downtown Pendleton. North Heritage Way would offer a new route directly connecting residents north of downtown to I-69 and the expanding business park. Travel time reductions during the morning and evening peak periods (the most congested periods) are illustrated in the table below for both the Pendleton Avenue and State Street corridors.

| Travel Time Average Reductions | | | | | | | | |
|--------------------------------|----------------|------|--|--|--|--|--|--|
| Segment | Segment AM PM | | | | | | | |
| State Street | | | | | | | | |
| Westbound | 7.4% | 2.4% | | | | | | |
| Eastbound | 0.9% | 6.4% | | | | | | |
| Per | ndleton Avenue | | | | | | | |
| Northbound | 3.8% | 4.4% | | | | | | |
| Southbound | 4.5% | 4.0% | | | | | | |

South Heritage Way

The South Heritage Way extension was modeled with multiple configurations to identify differences in expected volumes and provide guidance on the associated cross-section. Two-lane divided and fourlane divided cross-sections were tested, both including access control elements such as medians. The extension of South Heritage Way is less impactful than the North Heritage Way extension due to the limited connections and less development expected in the southern portion of Town. The operational differences between the two configurations were negligible across all scenarios and the expectation is that a two-lane divided facility will meet the projected demand.

CR 600 S

The CR 600 S corridor was not modeled with various configurations. However, it is a key location of concern for the local functional classification system. Due to its connection between the Heritage Way and Pendleton Avenue corridors, as well as the Anderson Flagship Enterprise Center north along CR 400 W/Layton Road; CR 600 S will be an important corridor as development continues. In the base condition, CR 600 S volumes vary between 100 and 700 vehicles per day. A projected connection to North Heritage Way by 2045 results in volumes between 1,800 and 4,000 vehicles per day on CR 600 S depending on the scenario applied. This reveals the importance of improving the existing CR 600 S corridor to mitigate impacts from the North Heritage Way extension project.

US 36-Water St Realignment

The north junction of US 36 with SR 9/SR 67 is a T-intersection with existing congestion and connectivity issues. Furthermore, the intersection's proximity to the US 36/SR 9/SR 67 and SR 38/State Street intersection currently results in excessive delays under peak period conditions. To mitigate these issues and improve overall system connectivity, the State Street Corridor Study included a recommendation to realign the north junction of US 36 to intersect with Water Street approximately 950 feet to the north along SR 9/SR 67.

Scenarios were run with and without the realignment project. Multiple cross-sections were tested as well, including a two-lane divided and four-lane divided configuration. The operational differences between the two configurations were negligible across all scenarios and the expectation is that a two-lane divided facility will meet the projected demand. However, both configurations resulted in reductions in delay along the US 36/SR 9/SR 67 corridor between Water Street and State Street.

67th Street

North of SR 38, the proposed 67th Street extension project is expected to support 1,000 to 2,000 vehicles per day including 200 to 300 trucks connecting to I-69 via SR 38.

146th Street Extension

In the base condition, existing roadways (CR 700 S) utilized as a portion of the proposed 146th Street extension project carry less than 300 vehicles per day. The same segments are expected to support 1,000 to 3,000 vehicles per day by the 2045 scenarios.

The overall comparison of scenario planning outputs illustrates that the Local Land Use Plans scenario aligns closely with highlights from public input. In addition to Local Land Use Plans, Investing in Place performs well in measures like improving walk access, decreasing land consumed, and reducing VMT by concentrating development. Connected World provides insight into the impacts of high growth and shows that the land use policy approach could have a drastic effect on the transportation system.

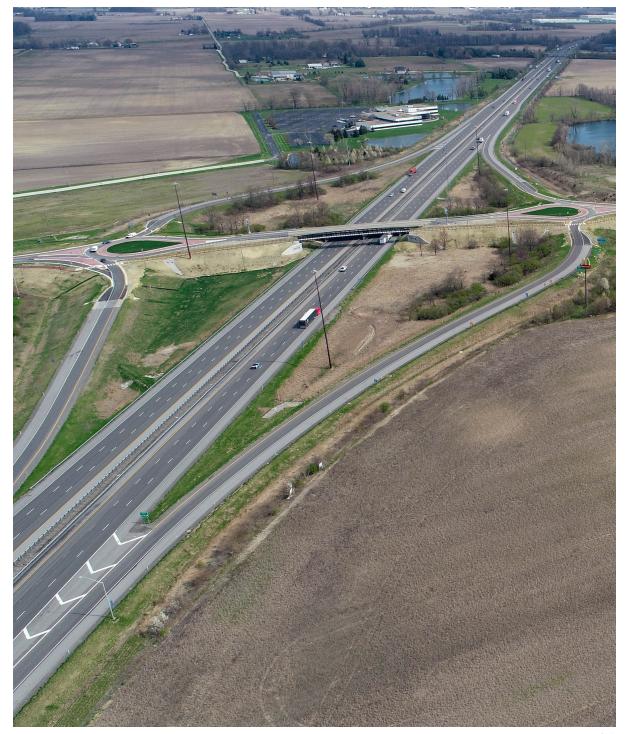


Chapter 5: Implementation

"Pendleton will provide a safe, efficient, and well-connected transportation system that supports walking, biking, historic preservation, and financial sustainability."

To achieve the desired future Pendleton wants, a combination of scenarios may be best to prepare Pendleton for the future. Actively shifting Local Land Use Plans more toward Investing in Place, and in preparation for high growth impacts of CAVs from Connected World would align land use policy to further support infill and redevelopment concentrated in the downtown core. This combination should provide the greatest mix of each scenario outcome, informing the overall implementation strategy to achieve the vision.

Though the vision statement is intended to guide the future development of the Pendleton transportation system, the long-term outcome requires many steps to achieve and a coordinated effort by multiple stakeholders, including various municipal departments as well as INDOT and MCCOG. A comprehensive list of recommendations has been developed to support this vision and address the current and future needs of the transportation system. These recommendations represent the compilation of information from public input and technical analysis conducted through the Thoroughfare Planning process.



Thoroughfare Plan Map

The Thoroughfare Plan Map lays out the proposed future roadway system for the town and assigns a Pendleton-specific functional classification to all roadways within Pendleton. One of the primary purposes of the Thoroughfare Plan Map is to provide a set of expectations for right-of-way requirements, identify context zones, and illustrate land use considerations.

It is important to note that roadway lines and proposed road segments illustrated on the Thoroughfare Plan Map are conceptual representations and do not indicate actual alignments. As development occurs or road construction projects are pursued, detailed surveys and studies will be required to further define specific roadway alignments.

All classified roadways in the Thoroughfare Plan Map will be required to have a minimum right-of-way and meet standards such as lane widths, drainage, and bicycle and pedestrian treatments based on their corresponding classifications. Additional right-of-way is also generally necessary at intersections that include at least one collector or higher-class roadway to accommodate dedicated turn lanes, signals, pedestrian access and amenities, and/or roundabout installations.

Constraints also exist which may make it impossible to meet the minimum requirements outlined within this plan. However, the Thoroughfare Plan and other town documents should be utilized to guide municipal staff and the Plan Commission to apply exceptions in limited cases while still maintaining the general characteristics of the preferred transportation system.

The current Thoroughfare Plan Map is referenced by the town's ordinances and is, therefore, part of the legal documentation that defines rights-of-way and assigns design standards for any transportation project initiated within the town. To ensure cross-compliance, local ordinances should be reviewed and adjusted as necessary to ensure alignment with the standards and classifications identified within this plan.

Map Elements

Pendleton Functional Classification

The Federal Functional Classification System includes seven roadway classes that are used to determine federal funding eligibility. These are developed by the Madison County Council of Governments (MCCOG) as the Metropolitan Planning Organization (MPO) for the region including Pendleton and confirmed by the Federal Highway Administration (FHWA). However, the local functional classifications are used to determine elements of roadway design and plan for right-of-way needs to accommodate expansion of the transportation network. Because they are locally determined, the local functional classification system can include as many or as few roadway classes as the community deems necessary. The map in Chapter 2 shows the assigned Federal Functional Classifications while the Thoroughfare Plan Map shows the local functional classifications.

It is important to note that the State of Indiana, specifically INDOT, retains control over state-owned transportation facilities.

The local functional classification system includes:

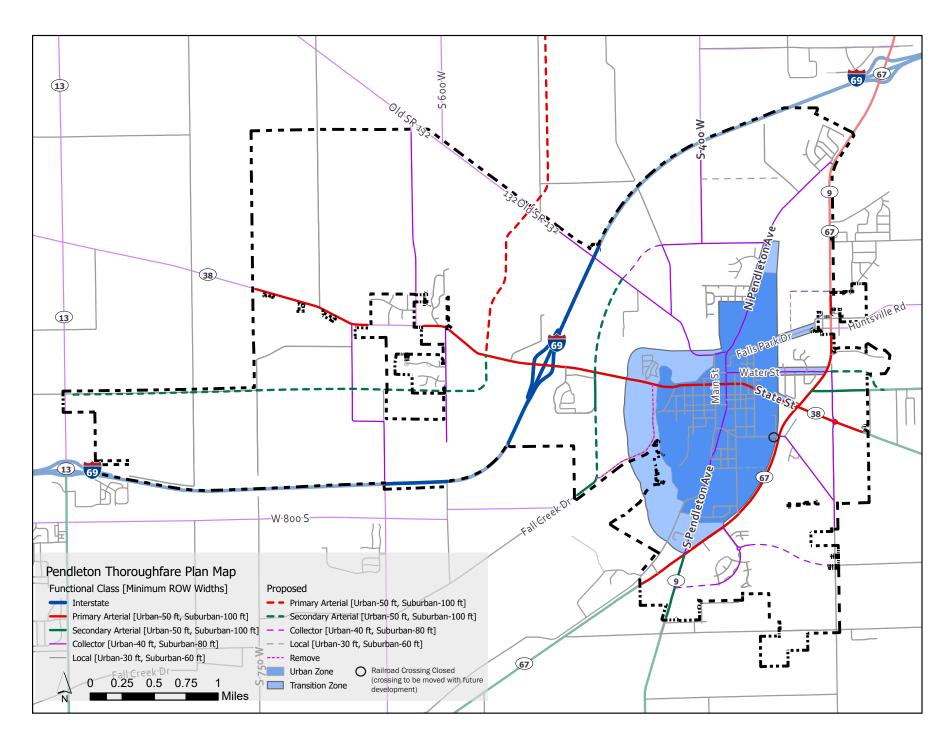
- Primary Arterial
- Secondary Arterial
- Collector
- Local

Arterial Corridors

Arterial corridors are typically high speed (45+ mph) and offer a high level of mobility. They serve longer trips to, from, and within communities. The capacity of arterial roads depends on the number of thru lanes. turning lanes, and interruptions (i.e., access points, traffic signals, and stop signs). The typical capacity of an arterial is 20,000 to 30,000 vehicles per day. Arterials can be state or federal highways, which are owned, operated, and maintained by INDOT. However, access to these facilities (i.e., driveways) is first managed by Pendleton and then INDOT, if located along a state facility. Primary and secondary arterials are differentiated by the level of access management and control. Primary arterials represent the highest level of access control by requiring the furthest distance between access points and greatest restriction of lefthand turning movements.

Collector Corridors

Collector corridors are typically moderate speed (30-45 mph) and balance mobility and access. Collector corridors serve a vital role by connecting arterial and local corridors. They typically have the most variable configuration options and may look vastly different depending on the context of the area they serve. The typical capacity of a collector ranges significantly from 5,000 to 25,000 vehicles per day. The addition of non-motorized facilities on collectors is vital to a successful active transportation system.



Local Corridors

Local corridors are typically low speed (30 mph or less) and limit mobility while maximizing direct access. The simplest example of a local corridor is a residential street lined with driveways connected to houses. These are the most prevalent class within a community but have the lowest capacity and speeds. Local corridors are used mostly for short trips to connect to collectors. Non-motorized safety, pedestrian and bicycle mobility, and aesthetics are high priorities for the design of local corridors. Bicycles typically share roads with vehicles due to low speed and traffic volume. Finally, on-street parking is almost always available, but not necessarily designated.

Context Zones

There are three context zones on the Thoroughfare Plan Map: urban, suburban, and transition. The urban context zone identified on the Thoroughfare Plan Map is a way to maintain sensitivity to the traditional historic downtown. This area is defined by its relatively higher-density development, alleys, short block lengths, and direct pedestrian access from the street. Within the zone, a grid-patterned road network is visible and access for both motorized and non-motorized traffic is predominant. Right-of-way widths are also typically limited by existing, often historic, buildings. Because of these characteristics, the traditional downtown requires a different approach to corridor design than one based on functional classification.

Areas outside of the urban context zone are defined as suburban. The suburban context consists of moderate to low-density development; separates residential, commercial, and industrial uses; has curvilinear street patterns with cul-de-sacs; faces driveways directly onto the street; and has larger building and home setbacks. Pedestrian circulation is restricted due to poor network connectivity. Suburban areas are not as limited by existing buildings as the downtown, so it is more feasible to expand right-of-way width to support anticipated traffic needs.

A proper right-of-way dedication requirement will allow for construction of transportation facilities with adequate capacity and facilities to serve the community as it continues to develop. It is both easier and more financially sustainable to acquire right-of-way as development occurs. Having more right-of-way enables suburban corridors to include safety enhancements like medians, aesthetic improvements like trees and landscaping, and separate bicycle and pedestrian facilities.

A special area between the urban and suburban contexts called the transition zone is also highlighted on the Thoroughfare Plan Map. Although the transition zone does not have specific right-of-way widths or design standards, special attention should be given to roadways in the transition zone. Corridors spanning both the urban and suburban contexts should include a transition to bridge the two different zones.

Right-of-Way Widths

Identifying the specific right-of-way needed for each roadway depends on the specific design elements that must be included to support the movement of people and goods in the specific situation. Each functional class and context decide the design elements and overall right-of-way necessary. Further, these considerations evolve over time. The Thoroughfare Plan indicates the expected minimum right-of-way width as a generalization of each functional class and the associated context to facilitate right-of-way preservation. The design elements, right-of-way widths, and functional classes should be reviewed as the town continues to develop over time.

Design & Typical Cross Sections

Public input highlighted the importance of design being sensitive to the surrounding condition. The Thoroughfare Plan Map illustrates both the functional class and general context that corridors operate within. The consideration for the urban and suburban context can be further split by defining three adjacent land use categories to better inform design decisions:

- Residential
- Commercial
- Industrial

Residential areas have attached, detached, and/ or multi-family dwelling units near them. Commercial areas include retail and office establishments such as restaurants, shopping, and business parks. Industrial areas consist of manufacturing, warehousing, and distribution activities which generate heavier truck and employee traffic. These areas tend to be high intensity uses that require significant infrastructure for supporting major activity. Corridor design can vary significantly by adjacent land use. For example, corridors that are adjacent to industrial uses are less likely to need parking spaces and require additional space for large vehicles like trucks and trailers.

To facilitate flexible design solutions that are sensitive to the functional class, context zone, and adjacent land use, the design matrix outlines the use and proposed widths of specific elements for each case.

The design matrix is broken into two key components: transportation and design. Some of the specific elements include:

- Travel Lanes
- Parking (one/both sides)
- Curb & Gutter
- Pedestrian Facilities
- Bicycle Facilities
- Policy Components
- Tree Lawns
- Medians/Two-Way Left Turn Lanes
- Pavement Markings
- Utility Buffers

Following each design matrix are nine cross sections illustrating the typical configuration for each situation. Typical cross sections do not represent all possible combinations or necessarily the best solution for each case but are meant to highlight the width of both transportation and design elements that determine the total minimum right-of-way width required and illustrate the differences between roadway types.

To enable development for all transportation modes, it is important to apply adequate cross section standards within appropriate context zones. It is important to note that this is an introduction to the concept of flexible design standards and any alteration of design standards in the future would require amendment to the town's Unified Development Ordinance (UDO), as well as the Street Design Standards Ordinance of the town.

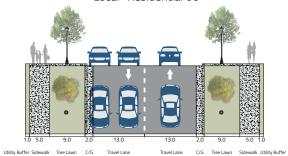
Flexible design standards must also consider the limitations that exist within the rights-of-way within downtown Pendleton that are not present in new development. To help preserve, and extend the historic appeal of Pendleton, a right-of-way is important to help maintain a functional street system. The right-of-way dedication process, which will be adopted as part of the UDO, directly references the widths of roadways in the Thoroughfare Plan Map. The right-of-way dedication process will ensure that proper widths are dedicated for future transportation facilities.

| Transportation | | Street Classification: Local | | | | | | | |
|-------------------------------|-------------|------------------------------|-------------|-------------|-------------|-------------|--|--|--|
| Elements | | Suburban | | | Urban | | | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial | | | |
| Travel Lanes: | | | | | | | | | |
| Lane width | 13 | 11 | 13 | 9 | 9 | 9 | | | |
| Min. thru lanes | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| Max. thru lanes | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| Parking (one/ both sides): | Required | Required | - | - | - | - | | | |
| Permissive parking | Required | - | - | - | - | - | | | |
| Parallel parking | Permitted | Permitted | - | - | - | - | | | |
| Angle parking | - | Conditional | - | - | - | - | | | |
| Width per side | - | 7 0 | - | - | - | - | | | |
| Curb & Gutter: | Required | Required | Required | Required | Required | Required | | | |
| 6" Chair back | Required | Required | Required | Required | Required | Required | | | |
| Roll Curb | Conditional | Conditional | Conditional | - | - | - | | | |
| Width per side | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| Pedestrian Facilities: | Required | Required | Required | Required | Required | Required | | | |
| Material - concrete | Required | Required | Required | Required | Required | Required | | | |
| Material - asphalt, pavers | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | | | |
| Minimum width | 5 | 6 | 5 | 5 | 5 | 5 | | | |
| Bicycle Facilities: | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | | | |
| Pavement markings | Permitted | Permitted | Permitted | Permitted | Permitted | Permitted | | | |
| Minimum buffer width | - | - | - | - | - | - | | | |
| Minimum width | - | - | - | - | - | - | | | |
| Policy Components: | | | | | | | | | |
| Access Control | - | - | - | - | - | - | | | |
| Speed zone (mph) | | 20-30 | | | 20-30 | | | | |

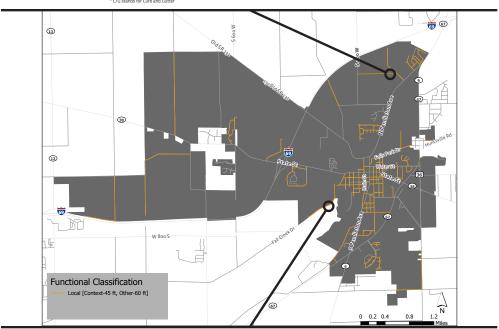
| | Street Classification: Local | | | | | | |
|--------------------------|------------------------------|------------|------------|-------------|-------------|-------------|--|
| Design | | Suburban | | | Urban | | |
| Elements | Residential | Commercial | Industrial | Residential | Commercial | Industrial | |
| Tree Lawn: | Required | Required | Required | Conditional | Conditional | Conditional | |
| Street Trees | Required | Required | Required | Conditional | Conditional | Conditional | |
| Minimum width | 9 | 7 | 9 | - | - | - | |
| Lighting: | Required | Required | Required | Required | Required | Required | |
| Dusk to dawn lighting | Required | Required | Required | Required | Required | Required | |
| Medians/ TWLTL: | - | - | - | - | - | - | |
| Chair back curbs | - | - | - | - | - | - | |
| Median trees | - | - | - | - | - | - | |
| Drainage | - | - | - | - | - | - | |
| Lighting | - | - | - | - | - | - | |
| Minimum width | - | - | - | - | - | - | |
| Pavement Markings: | | | | | | | |
| Centerlines | - | Required | Required | - | Required | Required | |
| Edge lines | - | Permitted | Permitted | - | Permitted | Permitted | |
| Parking spaces | Permitted | Required | - | - | - | - | |
| Stop bars | Required | Required | Required | Required | Required | Required | |
| Utility Buffer: | 1 1 | 1 1 | 1 1 | - | - | - | |

| | Street Classification: Local | | | | | |
|-------------------------|------------------------------|------------|------------|-------------|------------|------------|
| Transportation + Design | Suburban | | | Urban | | |
| Total ROW | Residential | Commercial | Industrial | Residential | Commercial | Industrial |
| ROW Width: | | | | | | |
| Minimum width | 60 | 60 | 60 | 32 | 32 | 32 |
| Maximum width | - | - | - | - | - | - |

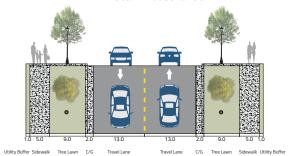
Local- Residential 60'



* C/G stands for Curb and Gutter



Local- Industrial 60'



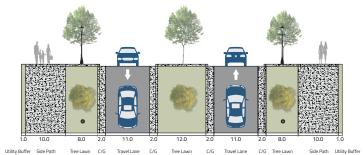
* C/G stands for Curb and Gutter

| Transportation | | | Street Classific | ation: Collector | r | |
|-------------------------------|-------------|-------------|------------------|------------------|-------------|-------------|
| Elements | | Suburban | | | Urban | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial |
| Travel Lanes: | | | | | | |
| Lane width | 11 | 11 | 11 | 10 | 10 | 10 |
| Min. thru lanes | 2 | 2 | 2 | 2 | 2 | 2 |
| Max. thru lanes | 2 | 2 | 2 | 2 | 2 | 2 |
| Parking (one/ both sides): | Conditional | Conditional | - | - | - | - |
| Permissive parking | Conditional | Conditional | - | - | - | - |
| Parallel parking | Conditional | Conditional | - | - | - | - |
| Angle parking | Conditional | Conditional | - | - | - | - |
| Width per side | 6 0 | 6 6 | - | - | - | - |
| Curb & Gutter: | Required | Required | Required | Required | Required | Required |
| 6" Chair back | Required | Required | Required | Required | Required | Required |
| 8" Chair back | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional |
| Width per side | 2 | 2 | 2 | 2 | 2 | 2 |
| Pedestrian Facilities: | Required | Required | Required | Required | Required | Required |
| Material - concrete | Required | Required | Required | Required | Required | Required |
| Material - asphalt, pavers | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional |
| Minimum width | 10 | 10 | 10 | 5 | 5 | 5 |
| Bicycle Facilities: | Permitted | Permitted | Permitted | - | - | - |
| Pavement markings | Required | Required | Required | - | - | - |
| Minimum buffer width | 1 | 1 | 1 | - | - | - |
| Minimum width | 4 | 4 | 4 | - | - | - |
| Policy Components: | | | | | | |
| Access Control | Conditional | Conditional | Conditional | - | - | - |
| Speed zone (mph) | | 30-45 | | | 30-45 | |

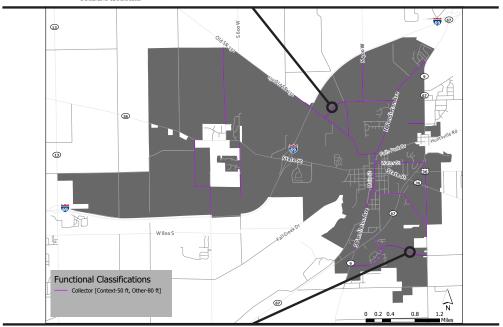
| Design | Street Classification: Collector | | | | | | | |
|--------------------------|----------------------------------|------------|------------|-------------|-------------|-------------|--|--|
| Elements | Suburban | | | Urban | | | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial | | |
| Tree Lawn: | Required | Required | Required | Required | Required | Required | | |
| Street Trees | Required | Required | Required | Conditional | Conditional | Conditional | | |
| Minimum width | 8 | 8 | 8 | 3 | 3 | 3 | | |
| Lighting: | Required | Required | Required | Required | Required | Required | | |
| Dusk to dawn lighting | Required | Required | Required | Required | Required | Required | | |
| Medians/ TWLTL: | Required | Required | Required | - | - | - | | |
| Chair back curbs | Required | Required | Required | - | - | - | | |
| Median trees | Permitted | Permitted | Permitted | - | - | - | | |
| Drainage | Permitted | Permitted | Permitted | - | - | - | | |
| Lighting | Permitted | Permitted | Permitted | - | - | - | | |
| Minimum width | 16 | 16 | 16 | - | - | - | | |
| Pavement Markings: | | | | | | | | |
| Centerlines | Required | Required | Required | Required | Required | Required | | |
| Edge lines | - | Permitted | Permitted | - | Permitted | Permitted | | |
| Parking spaces | Permitted | Required | - | - | - | - | | |
| Stop bars | Required | Required | Required | Required | Required | Required | | |
| Utility Buffer: | 1 1 | 1 1 | 1 1 | - | - | - | | |

| Transportation | Street Classification: Collector | | | | | | | |
|-----------------------|----------------------------------|------------|------------|-------------|------------|------------|--|--|
| + Design Total ROW | Suburban | | | Urban | | | | |
| Iotal How | Residential | Commercial | Industrial | Residential | Commercial | Industrial | | |
| ROW Width: | | | | | | | | |
| Minimum width | 80 | 80 | 80 | 40 | 40 | 40 | | |
| Maximum width | - | - | - | - | - | - | | |

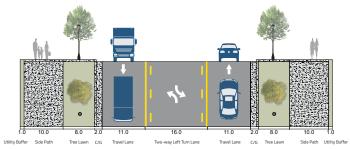
Collector- Residential 80'



* C/G stands for Curb and Gutter



Collector- Commercial/Industrial 80'



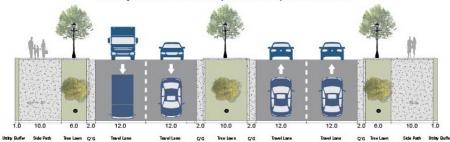
* C/G stands for Curb and Gutter

| Transportation | Street Classification: Primary Arterial | | | | | | | |
|-------------------------------|---|-------------|-------------|-------------|-------------|-------------|--|--|
| Elements | | Suburban | | | Urban | | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial | | |
| Travel Lanes: | | | | | | | | |
| Lane width | 12 | 12 | 12 | 11 | 11 | 11 | | |
| Min. thru lanes | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Max. thru lanes | 4 | 4 | 4 | 2 | 2 | 2 | | |
| Parking (one/ both sides): | - | - | - | - | - | - | | |
| Permissive parking | - | - | - | - | - | - | | |
| Parallel parking | - | - | - | - | - | - | | |
| Angle parking | - | - | - | - | - | - | | |
| Width per side | - | - | - | - | - | - | | |
| Curb & Gutter: | Required | Required | Required | Required | Required | Required | | |
| 6" Chair back | Required | Required | Required | Required | Required | Required | | |
| 8" Chair back | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | | |
| Width per side | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Pedestrian Facilities: | Required | Required | Required | Required | Required | Required | | |
| Material - concrete | Required | Required | Required | Required | Required | Required | | |
| Material - asphalt, pavers | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | | |
| Minimum width | 10 | 10 | 10 | 5 | 5 | 5 | | |
| Bicycle Facilities: | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | | |
| Pavement markings | Required | Required | Required | Required | Required | Required | | |
| Minimum buffer width | - | - | - | - | - | - | | |
| Minimum width | - | - | - | - | - | - | | |
| Policy Components: | | | | | | | | |
| Access Control | Required | Required | Required | Required | Required | Required | | |
| Speed zone (mph) | | 45-55 | | | 45-55 | | | |

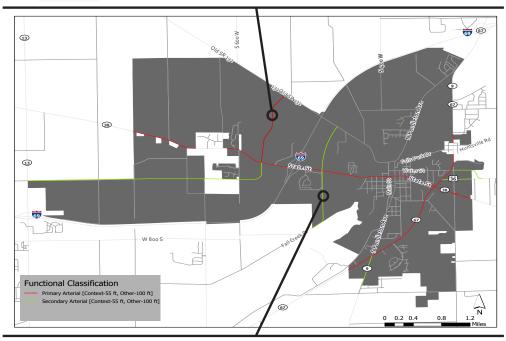
| Design | | Stre | et Classification | on: Primary Arte | erial | |
|--------------------------|-------------|------------|-------------------|------------------|-------------|-------------|
| Elements | | Suburban | | Urban | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial |
| Tree Lawn: | Required | Required | Required | Required | Required | Required |
| Street Trees | Required | Required | Required | Conditional | Conditional | Conditional |
| Minimum width | 6 | 6 | 6 | 6 | 6 | 6 |
| Lighting: | Required | Required | Required | Required | Required | Required |
| Dusk to dawn lighting | Required | Required | Required | Required | Required | Required |
| Medians/ TWLTL: | Required | Required | Required | - | Conditional | Conditional |
| Chair back curbs | Required | Required | Required | - | Required | Required |
| Median trees | Permitted | Permitted | Permitted | - | Permitted | Permitted |
| Drainage | Permitted | Permitted | Permitted | - | Permitted | Permitted |
| Lighting | Permitted | Permitted | Permitted | - | Permitted | Permitted |
| Minimum width | 14 | 14 | 14 | 12 | 12 | 12 |
| Pavement Markings: | | | | | | |
| Centerlines | Required | Required | Required | Required | Required | Required |
| Edge lines | Permitted | Permitted | Required | Permitted | Permitted | Permitted |
| Parking spaces | - | - | - | - | - | - |
| Stop bars | Required | Required | Required | Required | Required | Required |
| Utility Buffer | 1 1 | 1 1 | 1 1 | - | - | - |

| Transportation + Design Total ROW | Street Classification: Primary Arterial | | | | | |
|---|---|------------|------------|-------------|------------|------------|
| | Suburban | | | Urban | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial |
| ROW Width: | | | | | | |
| Minimum width | 100 | 100 | 100 | 60 | 60 | 60 |
| Maximum width | - | - | - | - | - | - |

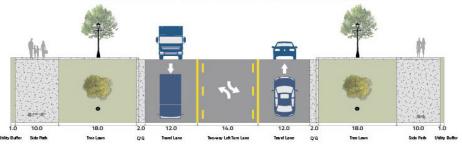
Primary Arterial- Residential/Commercial/Industrial 100'



* C/G stands for Curb and Gutter



Secondary Arterial- Residential/Commercial/Industrial 100'



* C/ G stands for Curb and Gutter

| Transportation | Street Classification: Secondary Arterial | | | | | | |
|-------------------------------|---|-------------|-------------|-------------|-------------|-------------|--|
| Elements | Suburban | | | Urban | | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial | |
| Travel Lanes: | | | | | | | |
| Lane width | 12 | 12 | 12 | 11 | 11 | 11 | |
| Min. thru lanes | 2 | 2 | 2 | 2 | 2 | 2 | |
| Max. thru lanes | 4 | 4 | 4 | 2 | 2 | 2 | |
| Parking (one/ both sides): | - | - | - | - | - | - | |
| Permissive parking | - | - | - | - | - | - | |
| Parallel parking | - | - | - | - | - | - | |
| Angle parking | - | - | - | - | - | - | |
| Width per side | - | - | - | - | - | - | |
| Curb & Gutter: | Required | Required | Required | Required | Required | Required | |
| 6" Chair back | Required | Required | Required | Required | Required | Required | |
| 8" Chair back | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | |
| Width per side | 2 | 2 | 2 | 2 | 2 | 2 | |
| Pedestrian Facilities: | Required | Required | Required | Required | Required | Required | |
| Material - concrete | Required | Required | Required | Required | Required | Required | |
| Material - asphalt, pavers | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | |
| Minimum width | 10 | 10 | 10 | 5 | 5 | 5 | |
| Bicycle Facilities: | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | |
| Pavement markings | Required | Required | Required | Required | Required | Required | |
| Minimum buffer width | - | - | - | - | - | - | |
| Minimum width | - | - | - | - | - | - | |
| Policy Components: | | | | | | | |
| Access Control | Conditional | Conditional | Conditional | Conditional | Conditional | Conditional | |
| Speed zone (mph) | 45-55 | | | 45-55 | | | |

| Design | Street Classification: Secondary Arterial | | | | | |
|--------------------------|---|------------|------------|-------------|-------------|-------------|
| Elements | Suburban | | | Urban | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial |
| Tree Lawn: | Required | Required | Required | Required | Required | Required |
| Street Trees | Required | Required | Required | Conditional | Conditional | Conditional |
| Minimum width | 6 | 6 | 6 | 6 | 6 | 6 |
| Lighting: | Required | Required | Required | Required | Required | Required |
| Dusk to dawn lighting | Required | Required | Required | Required | Required | Required |
| Medians/ TWLTL: | Required | Required | Required | - | Conditional | Conditional |
| Chair back curbs | Required | Required | Required | - | Required | Required |
| Median trees | Permitted | Permitted | Permitted | - | Permitted | Permitted |
| Drainage | Permitted | Permitted | Permitted | - | Permitted | Permitted |
| Lighting | Permitted | Permitted | Permitted | - | Permitted | Permitted |
| Minimum width | 14 | 14 | 14 | 12 | 12 | 12 |
| Pavement Markings: | | | | | | |
| Centerlines | Required | Required | Required | Required | Required | Required |
| Edge lines | Permitted | Permitted | Required | Permitted | Permitted | Permitted |
| Parking spaces | - | - | - | - | - | - |
| Stop bars | Required | Required | Required | Required | Required | Required |
| Utility Buffer | 1 1 | 1 1 | 1 1 | - | - | - |

| Transportation + Design Total ROW | Street Classification: Secondary Arterial | | | | | |
|---|---|------------|------------|-------------|------------|------------|
| | Suburban | | | Urban | | |
| | Residential | Commercial | Industrial | Residential | Commercial | Industrial |
| ROW Width: | | | | | | |
| Minimum width | 100 | 100 | 100 | 60 | 60 | 60 |
| Maximum width | - | - | - | - | - | - |

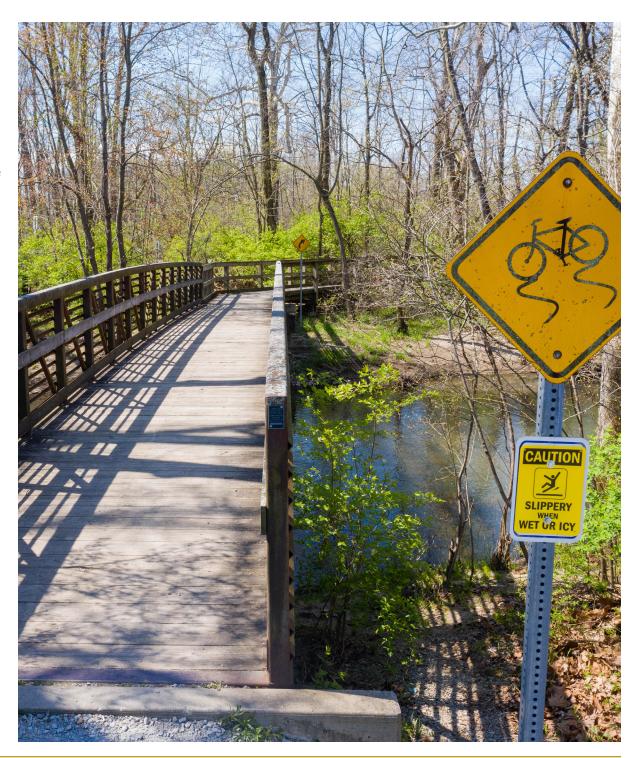
| Thoroughfare Plan Recommendations Overview | |
|--|--------------------|
| Action Item - Immediate (Ongoing to 1 year) | Туре |
| Bicycle and Pedestrian Network Expansion Program | Infrastructure |
| Collector System Planning Program | Non-Infrastructure |
| Thoroughfare Fund | Non-Infrastructure |
| Transportation Improvement Project Coordination Program | Non-Infrastructure |
| Regional Transportation Coordination Program | Non-Infrastructure |
| Action Item - Short (1 to 3 years) | Туре |
| Weight Restriction Ordinance | Non-Infrastructure |
| Utility Location Standardization | Non-Infrastructure |
| Wayfinding System Program | Infrastructure |
| Action Item - Medium (4 to 6 years) | Туре |
| North Heritage Way Extension Project | Infrastructure |
| CR 800 S Corridor Improvement Study | Non-Infrastructure |
| Safe Routes to School Program | Non-Infrastructure |
| Commercial Circulation Plan (US 36, SR 9, SR 67) | Non-Infrastructure |
| Thoroughfare Fund Tax | Non-Infrastructure |
| Action Item - Long (7+ years) | Туре |
| Sidewalk Improvement & Maintenance Program | Infrastructure |
| South Heritage Way Extension Project Phase 1 | Infrastructure |
| Intersection Realignment Program | Infrastructure |
| US 36 Realignment Project | Infrastructure |
| SR 9 & N Pendleton Avenue Intersection Study | Non-Infrastructure |
| 146th Street Extension Project | Infrastructure |
| South Heritage Way Extension Project Phase 2 Study | Non-Infrastructure |
| CR 600 S & N Pendleton Avenue Intersection Monitoring & Improvement | Non-Infrastructure |
| CR 300 W & CR 850 S Intersection Improvement Project | Infrastructure |
| CR 600 S & CR 400 W/Layton Rd Intersection Improvement Project | Infrastructure |
| Additional Crossing over CSX Railroad and US 36/SR 9/SR 67 (*Indiana Ave Ext.) | Infrastructure |
| CR 300 W Expansion Project | Infrastructure |
| Candlewood Drive Extension and Park Sporta Complex Connection | Infrastructure |

Action Items

In addition to the Thoroughfare Plan Map and associated design matrices, there are several projects, programs, and policies that are recommended to support the overall vision for the transportation system. Recommendations have been evaluated based on existing conditions, scenario analysis, input from the steering committee, input from the public, and review of previous work. They are organized into four categories by estimated implementation time frame, following the Pendleton Comprehensive Plan approach:

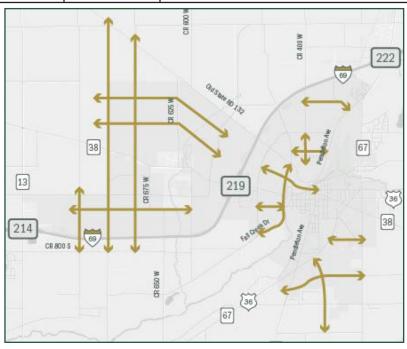
- 1. Immediate (ongoing 1 year)
- 2. Short (1 3 years)
- 3. Medium (4 6 years)
- 4. Long (7+ years)

It is important to note that the prioritization of these projects, programs, and policies will change over time as local needs change, funding opportunities arise, and future development patterns become clearer. This prioritization is a snapshot at the time of this plan and should be reviewed on an annual basis to ensure it continues to reflect the needs and vision of the community over time.



| Thoroughfare Plan Recommendations | | | |
|---|------------------------------------|--|---|
| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
| Bicycle and Pedestrian Network Expansion Program - Continue to expand the bicycle and pedestrian network to improve overall connectivity and increase bicycle and | Immediate (Ongoing - 1 year) | Coordinate thoroughfare improvements with recommendations outlined in the 2017 Pendleton Bicycle and Pedestrian Master Plan. | Pendleton Planning Department and Public Works |
| pedestrian accessibility. Many respondents from the Vision Survey identified the need for maintaining and expanding pedestrian facilities. | | 2. Incorporate bicycle and pedestrian facilities in street design standard requirements. | Town's Project Consultants Madison County Council |
| | | | of Governments (MCCOG) Indiana Department of Transportation (INDOT), Department of Natural |
| | | | Resources (IDNR), and Department of Health (ISDH) |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|---|------------------------------------|--|---|
| Collector System Planning Program - The role of collectors as a bridge between access and mobility (local and arterial) is extremely important to ensuring the transportation system functions safely and efficiently. However, these corridors are often overlooked in developments during the subdivision process. Special attention should be given as large tracts of land are subdivided to ensure that the collector system is identified, and right-of-way preserved to connect between developments. The Thoroughfare Plan Map does not prescribe the exact location of these collectors but highlights some existing developments that should connect to collectors. The collector system planning program is intended to ensure that collectors are identified as part of the site design review process. It follows the rule of thumb on collector spacing of 0.5-miles. | Immediate (Ongoing - 1 year) | Monitor development proposals to ensure collector right-of-way is dedicated/preserved. | Pendleton Planning Department and Plan Commission |



| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|---|------------------------------------|---|--|
| Thoroughfare Fund - Establish a dedicated funding account to implement a Thoroughfare Fund per Indiana Code 36-9-6.1. This is a step toward making Pendleton's transportation system and future improvements financially sustainable. | Immediate (Ongoing - 1 year) | 1. Create a Thoroughfare Fund account by the Town's fiscal body using guidance from Indiana Code – IC 36-9-6.1 2. Determine what funds, if any, will be directed into the Thoroughfare Fund account (i.e. funding from impact fees, operations & maintenance allocations, and/or thoroughfare fund tax). | Pendleton Public Works, Town Council, and Plan Commission Town's Legal Consultant Town's Fiscal Body (Clerk Treasurer) |
| Transportation Improvement Project Coordination Program - Continue coordination with the Indiana Department of Transportation (INDOT) and the Madison County Council of Governments (MCCOG) on major transportation improvement projects. | Immediate (Ongoing - 1 year) | Maintain representation on the MCCOG Policy Board and Technical Advisory Committee. Appoint a citizen representative(s) to serve on the MCCOG Citizen Advisory Committee. Continue to have at least 1 staff member trained as the Employee in Responsible Charge (ERC) through INDOT. Continue participating in MCCOG Quarterly Tracking Meetings whenever using Federal Transportation Funds on a project. Seek Town representation on any commissions or steering committees related to projects that may impact the Town of Pendleton. | Pendleton Planning Department, Public Works, and Town Council Madison County Council of Governments (MCCOG) Indiana Department of Transportation (INDOT) |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|------------------------------------|---|--|
| Regional Transportation Coordination Program - Continue and expand coordination efforts with partner communities being impacted by growth from Indianapolis. The need for regional transportation coordination comes from numerous public comments about what other communities are doing outside of Pendleton and how regional transportation issues directly impact Pendleton. As Pendleton considers regional connectivity to corridors such as I-69, I-70, US 36, SR 9, SR 38, and SR 67, it will be important to coordinate transportation improvements with other jurisdictions. This will help ensure the greatest overall transportation efficiency and economic benefit to the region. Special attention and coordination should take place for the following roadways: CR 700 S, CR 800 S, CR 600 W, CR 650 W, both within and outside of the town boundary. | Immediate (Ongoing - 1 year) | Form a working group to discuss transportation issues. Establish a regular coordination meeting. Outline coordination opportunities and align planning efforts. | Pendleton Planning Department and Town Council Ingalls Planning Department and Town Council Lapel Planning Department and Town Council Fortville Planning Department and Town Council Madison County Planning Department and County Commissioners Hancock County Planning Department and County Commissioners |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|------------------------|---|---|
| Weight Restriction Ordinance - Develop an ordinance tying weight limits to construction standards that references load capacities to systemically address maintenance impacts of heavy loads. Town staff and the Steering Committee noticed the need for this type of ordinance as more heavy truck traffic comes from I-69 and new construction projects. | Short (1 - 3 years) | Identify what existing roadways fall into concrete and asphalt equivalent single axle load (ESAL) categories outlined in the INDOT Standard Specifications for construction, which is referenced by the Pendleton Street Standards document. Determine which categories should include weight limit restrictions and/or if additional permits should be required to use them. Produce a map for illustrating the ESAL category of each roadway. Develop an ordinance to outline permitting requirements, match ESAL categories with weight limits, assign an ESAL to each new roadway as it is built, and review/ assign an ESAL to each existing roadway. | Pendleton Planning Department, Public Works, Town Council, and Plan Commission Indiana Department of Transportation (INDOT) Town's Project Consultant |
| Utility Location Standardization - Develop a standard utility location placement procedure to be followed by the Town's utility departments. Town staff discussed utility locations within the cross section typicals above, but more detailed plans will need to be developed. | Short (1 - 3 years) | Review and reference INDOT construction standards on utility location placement. Discuss current and future utility location placement with Town utility departments to determine a Town standard. Draft an ordinance and standard utility location placement diagram for each type of functional classification. Adopt and follow utility location standardization ordinance. | Pendleton Town Council and Plan Commission Town Utility Departments Town's Project Consultant Indiana Department of Transportation (INDOT) |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|---|------------------------|---|--|
| Wayfinding System Program - Develop a system of signage at both the auto- and pedestrian- | Short (1 - 3 years) | Develop and install a wayfinding system that is fitting to Pendleton's historic | Pendleton Planning Department, Public Works, |
| scales to ensure the transportation system can be navigated easily for all road users. This action | | atmosphere and reflects the "Pendleton Brand." | and Police Department |
| item comes directly from the Comprehensive Plan. | | 2. Ensure the transportation system meets | Town's Project Consultants |
| | | accessibility requirements. | Indiana Danambarant of |
| | | 3. Development standards for street signs and | Indiana Department of Transportation (INDOT) |
| | | implement a street sign replacement project. | , , , |
| | | 4. Explore opportunities to advertise the | |
| | | bicycle and pedestrian network (kiosks, website, etc.). | |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|---|-------------------------|---|---|
| North Heritage Way Extension Project - Extension of Heritage Way from State Street to CR 600 S with a roundabout intersection at Old SR 132. This project has been identified as | Medium (4 - 6 years) | 1. Scope and assess the North Heritage Way Extension project based on feasibility, right-of-way needs, and community support. | Pendleton Planning Department and Public Works |
| a need for the Town of Pendleton to alleviate congestion on State Street and provide greater | | 2. Continue monitoring/study of N Heritage Way & Old SR 132 for type of intersection | Town's Project Consultant |
| access to the residential developments along CR 600 S and Old SR 132. | | improvement. | Madison County Council of Governments (MCCOG) |
| | | 3. Utilize impact fees and right-of-way dedication to prepare for extension. | Indiana Department of Transportation (INDOT) |
| CR 800 S Corridor Improvement Study - CR 800 S, otherwise known at 136th Street in Hamilton County, is an east-west connection that parallels | Medium (4 - 6 years) | 1. Form a working group with Ingalls to discuss CR 800 S upgrades. | Pendleton Planning Department and Town Council |
| I-69 to the south. Hamilton County and Ingalls continue to improve the corridor in their | | 2. Establish a regular coordination meeting. | Ingalls Planning |
| jurisdictions. The corridor in Ingalls will have two travel lanes in each direction with a two- way left turn lane, side paths on each side of the | | 3. Outline coordination opportunities and align planning efforts. | Department and Town Council |
| roadway, and other pedestrian amenities. Pendleton needs to identify what the CR 800 S corridor looks like in their jurisdiction as well as | | | Madison County Planning Department and County Commissioners |
| adjacent to their jurisdiction. Another important element to this study is to gain an understanding of the feasibility to reconstruct the intersection of CR 800 S and CR 600 W. The goal would | | | Madison County Council of Governments (MCCOG) |
| be to align the intersection as a four-way stop controlled intersection or roundabout. | | | |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|-------------------------|--|--|
| Safe Routes to School (SRTS) Program with the South Madison School Corporation to improve the safety of children who walk or bicycle to school and promote active transportation options. Bicycle and pedestrian connections to schools was highlighted as a need in the Vision Survey. | Medium (4 - 6 years) | Form a Safe Routes to School team. Analyze existing conditions through surveys and site assessments. Determine school walking routes and conditions. Identify projects and funding for improving conditions. Determine non-infrastructure methods for encouraging students to walk/bike to school. Evaluate and make improvements. | Pendleton Planning Department and Public Works South Madison School Corporation Parents/Guardians Town's Project Consultant Indiana Department of Transportation (INDOT) 2016 Indiana Safe Routes to School Guidebook |
| Commercial Circulation Plan (US 36, SR 9, SR 67) - Study the impacts from the US 36 Added Travel Lanes and Connectivity Project to see how access is limited to the adjacent properties in the project area. The US 36 Added Travel Lanes and Connectivity Project Team identified the need to consolidate driveways, reduce curb cuts, and construct new local roads to increase access to properties along the corridor. | Medium (4 - 6 years) | Continue to monitor the preliminary design/engineering for the US 36 Added Travel Lanes and Connectivity Project. Contact commercial business owners along the corridor to discuss alternatives to access into and out of their property. Design a system on local and/or collector roads and shared driveways to increase the commercial circulation around the corridor. | Pendleton Planning Department and Plan Commission Town's Project Consultant Indiana Department of Transportation (INDOT) |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|-------------------------|---|---|
| Thoroughfare Fund Tax - The State of Indiana allows for a levy of an annual tax of one to five cents (\$0.01 to \$0.05) on each one hundred dollars (\$100) of taxable property in Pendleton. Taxes levied shall be collected in the same manner as other property taxes and deposited in a separate and continuing fund to be known | Medium (4 - 6 years) | 1. Create a Thoroughfare Fund by the Town's fiscal body using guidance from Indiana Code – IC 36-9-6.1 2. Agree upon appropriate tax levy by Town fiscal officers (Clerk Treasurer). | Pendleton Clerk Treasurer, Plan Commission, and Town Council Town's Legal Consultant |
| as the Thoroughfare Fund. The vision statement outlines how Pendleton's transportation system and future improvements must be financially sustainable. | | 3. Educate public on Thoroughfare Fund Tax and what it will be used for.4. Levy annual tax to be collected and put into Thoroughfare Fund | |

| Estimated Revenue from Thoroughfare Fund | | | | | |
|--|------------------|-----|--|--|--|
| Assessed Value | \$325,411,200.00 | | | | |
| Annual Tax per \$100 Value | | | | | |
| \$0.01 | \$32,541.12 | Min | | | |
| \$0.02 | \$65,082.24 | | | | |
| \$0.03 | \$97,623.36 | | | | |
| \$0.04 | \$130,164.48 | | | | |
| \$0.05 | \$162,705.60 | Max | | | |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|--------------------|--|---|
| Sidewalk Improvement & Maintenance Program - Fund a sidewalk improvement and maintenance program to reconstruct or construct sidewalks within the Town of Pendleton. The Future Transportation Survey results has sidewalk expansion and maintenance as one of the top transportation investments to be made in Pendleton's transportation system. | Long (7+ years) | 1. Identify current conditions of existing sidewalks and missing gaps in the sidewalk network. 2. Prioritize sidewalk improvements/ maintenance. 3. Set aside a dedicated funding stream for the annual improvement/maintenance of sidewalks in Pendleton. | Pendleton Planning Department, Public Works, and Redevelopment Commission Town's Project Consultant Indiana Department of Transportation (INDOT) |
| | | 4. Reconstruct/construct sidewalks annually based on previous work. | |
| South Heritage Way Extension Project Phase 1 - Extension of Heritage Way Phase 1 from Fall Creek Drive to Pioneer Trace. Fall Creek Drive from Heritage Way to State Street would then | Long (7+ years) | 1. Scope and assess the South Heritage Way Extension project phase 1 based on feasibility, right-of-way needs, and community support. | Pendleton Planning Department and Public Works |
| be closed. This project has been identified as a need for the Town of Pendleton to alleviate | | 2. Utilize impact fees and right-of-way dedication to prepare for extension. | Town's Project Consultant |
| congestion on State Street and provide a different route to the southern portion of the Town. | | | Madison County Council of Governments (MCCOG) |
| | | | Indiana Department of Transportation (INDOT) |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|---|--------------------|---|--|
| Intersection Realignment Program - Study and plan for future intersection realignments from current angled intersections to 90-degree intersections on facilities such as Old SR 132 | Long (7+ years) | Identify angled intersections the Town would like to realign. Scope and assess angled intersection | Pendleton Planning Department and Public Works |
| and Angle Road. Town staff identified this action item during the planning process as something | | projects for feasibility, right-of-way needs, and community support. | Town's Project Consultant |
| needing to be addressed as improvements are made to the transportation system. | | 3. Fund and construct intersection projects | Madison County Council of Governments (MCCOG) |
| | | | Indiana Department of Transportation (INDOT) |
| | | | Federal Highway Administration (FHWA) |
| US 36 Realignment Project - Construct US 36 to align with the SR 9/SR 67 and Water Street intersection to improve system connectivity and address congestion issues at the existing US 36 | Long (7+ years) | Coordinate with INDOT and MCCOG to identify alternative approaches for implementation. | Pendleton Planning Department and Public Works |
| and SR 9/SR 67 intersection. | | 2. Scope and assess the project based on feasibility, right-of-way needs, and community | Town's Project Consultant |
| | | support. | Madison County Council of Governments (MCCOG) |
| | | 3. Utilize impact fees and right-of-way dedication to prepare for realignment. | Indiana Department of Transportation (INDOT) |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|--------------------|---|--|
| SR 9 & N Pendleton Avenue Intersection Study - Study safety and operational issues to determine alternative intersection designs for the SR 9 & N Pendleton Avenue intersection. | Long (7+ years) | Review crashes to determine consistent causes and the ability to address them. Identify potential intersection improvement solutions. Utilize impact fees and right-of-way dedication to prepare for improvement installation. | Pendleton Planning Department, Public Works, and Plan Commission Town's Project Consultants Indiana Department of Transportation (INDOT) |
| 146th Street Extension Project - Extension and realignment of 146th Street (CR 700 S) parallel to I-69 from SR 13 to SR 38. This will align with the 67th Street Extension Project. The Pendleton I-69 Interchange Master Plan Market Analysis identified CR 700 S as a potential roadway to be reconstructed as future growth and development expands into the western portion of the Town. | Long (7+ years) | 1. Coordinate with regional partners to monitor and plan for 146th Street extension. 2. Scope and assess the 146th Street Extension project based on feasibility, right-of-way needs, and community support. 3. Utilize impact fees and right-of-way dedication to prepare for expansion. | Pendleton Planning Department and Public Works Town's Project Consultant Madison County Council of Governments (MCCOG) Indiana Department of Transportation (INDOT) Town of Ingalls Town of Lapel Madison County Hamilton County City of Noblesville City of Fishers |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|--------------------|---|---|
| South Heritage Way Extension Project Phase 2 Study - Study the extension of Heritage Way Phase 2 from Fall Creek Drive to the southern portion of town. This project has been identified by an Impact Fee study as a need for the Town of Pendleton to alleviate congestion on State Street and provide a different route to the southern portion of the Town. | Long (7+ years) | 1. Scope and assess the South Heritage Way Extension project phase 2 based on feasibility, right-of-way needs, and community support. | Pendleton Planning Department and Public Works Town's Project Consultant Madison County Council of Governments (MCCOG) Indiana Department of |
| | | | Transportation (INDOT) |
| CR 600 S & N Pendleton Avenue Intersection Monitoring & Improvement - Traffic volume increases on CR 600 S from the N Heritage Way Extension Project are expected to significantly impact the CR 600 S & N Pendleton Avenue | Long (7+ years) | Monitor traffic volumes. Identify potential intersection improvement solutions. | Pendleton Planning Department, Public Works, and Plan Commission Town's Project |
| intersection operations. This intersection should be monitored and studied for improvement to mitigate operational and safety concerns. | | 3. Utilize impact fees and right-of-way dedication to prepare for improvement installation. | Consultants |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|---|--------------------|--|--|
| CR 300 W & CR 850 S Intersection Improvement Project - The Thoroughfare Plan illustrates the connection of CR 850 S with the Huntzinger Farms development via a new collector roadway. The CR 300 W and CR 850 S intersection currently experiences a relatively higher number of crashes than other local roads in Pendleton. As the collector connection is installed, this intersection should be improved to address safety issues. | Long (7+ years) | Review crashes to determine consistent causes and the ability to address them. Identify potential intersection improvement solutions. Utilize impact fees and right-of-way dedication to prepare for improvement installation. | Pendleton Planning Department, Public Works, and Plan Commission Town's Project Consultants Madison County |
| CR 600 S & CR 400 W/Layton Rd Intersection Improvement Project - Traffic volume increases on CR 600 S from the N Heritage Way Extension Project are expected to significantly impact the CR 600 S & CR 400 W/Layton Road intersection operations. This intersection could also see an increase in truck traffic from the Extension Project and should be monitored and studied for improvement to mitigate operational and safety concerns. | Long (7+ years) | 1. Monitor traffic volumes. 2. Identify potential intersection improvement solutions. 3. Utilize impact fees and right-of-way dedication to prepare for improvement installation. | Pendleton Planning Department, Public Works, and Plan Commission Town's Project Consultants |

| Action Item - Description | Time Frame | Action Steps | Resources/Parties Involved |
|--|--------------------|--|--|
| Additional Crossing over CSX Railroad and US 36/SR 9/SR 67 - Study the need for an additional roadway crossing over the CSX railroad and US 36/SR 9/SR 67. While analyzing | Long (7+ years) | Scope and assess priority crossing routes about feasibility, right-of-way needs, community support, etc. | Pendleton Planning Department and Public Works |
| the current conditions of the transportation system in Chapter 2, the CSX railroad has been | | 2. Identify future need and funding for crossing. | CSX Representative |
| identified as a barrier to move across town. This project would work concurrently with the | | | Town's Project Consultant |
| extension of Indiana Avenue to SR 67 and the Railroad. | | | Indiana Department of Transportation (INDOT) |
| | | | Federal Highway Administration (FHWA) |
| CR 300 W Expansion Project - As Pendleton continues to grow east of the US 36/SR 9/SR 67 corridor, CR 300 W may need expansion to accommodate local traffic and preserve the | Long (7+ years) | 1. Scope and assess the project based on feasibility, right-of-way needs, and community support. | Pendleton Planning Department, Public Works, and Plan Commission |
| functional hierarchy for adjacent arterials. | | 2. Utilize impact fees and right-of-way dedication to prepare for expansion. | Town's Project Consultants |
| | | | Madison County |
| Candlewood Drive Extension and Park Sports Complex connection - A secondary entrance to both the park and the developable land to the north/northeast of the Park Sports Complex will be essential to safe access to all land that | Long (7+ years) | Scope and assess the project based on feasibility, developer interest and traffic on SR 67 and into the park. Utilize multiple funding sources or rely on | Pendleton Planning Department, Public Works, Parks Department and Plan Commission |
| develops in this area and to expand park services. This intersection along SR 67 could also potentially utilize a signalized light in the future. | | developer for installation. | Indiana Department of Transportation (INDOT) |

A Note on Action Items

Many of the proposed transportation system recommendations identified within this plan may not be constructed, or even needed in the near-term, but are important to take into consideration long-term. The Pendleton Thoroughfare Plan should be updated in conjunction with the Pendleton Comprehensive Plan approximately every five years due to anticipated growth. The need, location, and extent of any future action item should follow this plan and be implemented based on the best information available at the time. This includes, but is not limited to, engineering feasibility, financial feasibility, benefit-cost analysis, public input, and compatibility with adjacent land uses.

