

Traffic engineers and transportation planners historically have held different views on the most effective way to plan a regional transportation network. Some argue the only way to combat congestion is with additional highway capacity and constructing new thoroughfares. Others promote transit, walking, and biking combined with local connectivity. Recently, these diverging viewpoints have come to recognize the need for diversity of choice. It is now understood that transportation systems must adapt as suburban development has assumed a more urban form and urban centers have softened through a mixture of land uses, green spaces, and enhanced walkability.

The *KYOVA 2040 Metropolitan Transportation Plan* blends the need for additional highway capacity with the region's ongoing acknowledgement that connectivity and alternative modes are cost-effective ways to address existing and future concerns. In short, the *KYOVA 2040 MTP* supports a balanced transportation network built upon the premise of choice and connectivity. It's not an easy task to solicit meaningful feedback from stakeholders and the general public, understand and accurately reflect trends in population and employment growth, capture existing deficiencies, and effectively communicate a series of prioritized, workable solutions. Such a plan requires a comprehensive approach that unites design, policy, and modal alternatives. The approach—as well as the recommended plan produced therein—are described in the chapters that follow.



## Background

It is essential for local leaders and citizen advocates to plan and provide appropriate transportation infrastructure to encourage and guide growth in a way that enhances the quality of life and draws people and industry to the region. From a transportation perspective, challenges to planning include deficiencies in existing roads, lack of interconnectivity between developments, natural barriers such as steep slopes and water features, and disconnects between land use and transportation decisions.

Simply stated, good transportation is the key to continuing the region's success—leaders must find a way to overcome these challenges. The conventional transportation planning approach that focused nearly all resources on major roadway improvements can help only so much. Strategic investment in major roadways must be balanced with improvements to the bicycle, pedestrian, transit, rail, and freight network to keep people and goods moving, allow better access and mobility for residents and visitors, and enhance the area's quality of life.

The *KYOVA 2040 MTP* addresses anticipated growth in Lawrence County in Ohio and Cabell and Wayne Counties in West Virginia. The plan focuses on the continued development of a multimodal transportation system that fosters economic growth without compromising the region's natural appeal and character. The plan picks up where the 2035 Long-Range Transportation Plan left off and looks beyond the roadway network to determine the effects of growth on the built environment and acknowledge the importance of balancing the land use and transportation equation. As a result, the *KYOVA 2040 MTP* features tools aimed at creating a successful merger between smart growth and the demands of roadway users.

## The Purpose of the Updated Plan

A region's long-range transportation plan is its blueprint for developing a transportation system that not only accommodates the current mobility needs of the area's residents but also peers into the future to anticipate where new needs will arise. The LRTP (in this case referred to as a metropolitan transportation plan or MTP) is a financially constrained plan, meaning it identifies projects and programs that can reasonably be implemented within the years of the plan. In response to federal mandates and the desires of local residents, the *KYOVA 2040 MTP* addresses all modes of transport including automobile, bicycle, pedestrian, transit, air, rail, maritime, and freight movements.

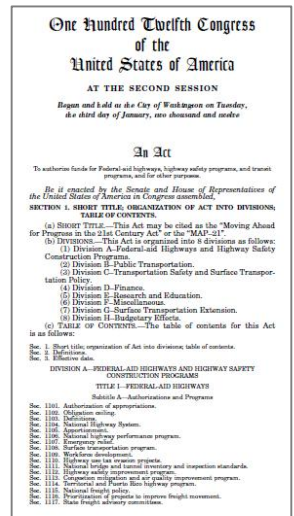
The transportation plan is shaped by several elements, primarily federal legislation, but also the direction of state and local agencies. The *KYOVA 2040 MTP* is governed by the Moving Ahead for Progress in the 21st Century Act (MAP-21), which was signed into law on July 6, 2012. MAP-21 is the first federal highway authorization enacted since 2005 and allocates \$105 billion for surface transportation programs in its first two fiscal years (FY2013 and FY2014).



## MAP-21 Planning Factors

The predecessor to MAP-21, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), addressed challenges inherent to the modern transportation system, including safety, security, traffic congestion, intermodal connectivity, freight movement, and environmental protection. SAFETEA-LU set forth eight planning factors that agencies had to consider when developing their plans. These planning factors have been carried forward into MAP-21. The legislation requires the planning process to consider projects and strategies that:

- A. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- B. Increase the safety of the transportation system for motorized and non-motorized users.
- C. Increase the security of the transportation system for motorized and non-motorized users.
- D. Increase the accessibility and mobility of people and freight.
- E. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
- F. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- G. Promote efficient system management and operation.
- H. Emphasize the preservation of the existing transportation system.





The *KYOVA 2040 MTP* is the culmination of a multi-level partnership between local, regional, state, and federal policy-makers and the citizens, business owners, and stakeholders who are most impacted by transportation decisions. The plan updates the region's existing long-range transportation plan. It identifies key regional transportation decisions that were based on community needs. It provides critical information to be considered in the prioritization and funding of projects in developing the Transportation Improvement Program (TIP). Finally, it fosters multimodal transportation decisions—and as a result—ensures consistency among competing modes.

The federal government requires a long-range transportation plan be updated every five years to reflect the region's changing needs and priorities. The *KYOVA 2040 MTP* builds upon the 2035 KYOVA Long-Range Transportation Plan, which was adopted in March 2009 and has a conformity determination date of August 2009. Since launching the metropolitan planning process in 1970, the federal government has required a cooperative, continuous, and comprehensive planning framework for making transportation investment decisions in metropolitan areas.

## KYOVA Interstate Planning Commission

KYOVA Interstate Planning Commission is an association of local governments in southwestern West Virginia and southeastern Ohio that serves as a forum for assessing and acting upon regional transportation problems. The Commission's goal is to promote cooperation among members, the governments closest to the people, and to maximize their capabilities for solving problems that cannot be solved by any one jurisdiction. By working as a bi-state organization, the area benefits from a multi-modal transportation system linking the states.

KYOVA was formally organized on October 11, 1968. Its creation, via interstate compact was the

culmination of years of thought initiated in 1965 with the beginning of the Huntington-Ashland-Ironton Area Transportation Study (HAIATS). KYOVA was formed from HAIATS to coordinate and administer transportation planning. To provide a recognized geographical area of activity, in 1966 the Bureau of the Census designated the urbanized area of Huntington-Ashland-Ironton as the Metropolitan Statistical Area (MSA). This area included: Cabell and Wayne Counties, WV; Ashland, KY; and Ironton, OH. In 1973 and 1981 respectively, the Bureau of the Census expanded the MSA to include the counties of Greenup and Carter, Kentucky.

In the late 1980s, the State of Kentucky elected to form a separate MPO from the Kentucky portion of the Huntington-Ashland-Ironton Transportation Study. Thereby, the responsibility of KYOVA's area changed to cover Lawrence County, OH; Cabell and Wayne County, WV; the City of Huntington, WV; and the City of Ironton, OH. Then, the Transportation Study name changed to Huntington-Ironton Area Transportation Study (HIATS, known as KYOVA).

When the U.S. Census Bureau released its 2010 urbanized area (UZA) information in March 2012, the Huntington UZA grew in terms of land area and population. The new boundary includes Hurricane and Teays Valley in Putnam County, WV and Boyd and Greenup Counties in Kentucky. The new population for the UZA exceeds 200,000. As a result of the population growth, the area has been designated a Transportation Management Area (TMA). The designation as a TMA triggers the need for a Congestion Management Plan, which must be in place within 18 months of the UZA's designation as a TMA. KYOVA will act as the lead MPO in cooperation with the Charleston UZA's MPO, the Regional Intergovernmental Council (RIC), in addressing the expanded study area and additional requirements resulting from the designation as a TMA.

**Figure 1.1** illustrates the study area for the *KYOVA 2040 MTP*, which is unchanged from the 2035 Plan.





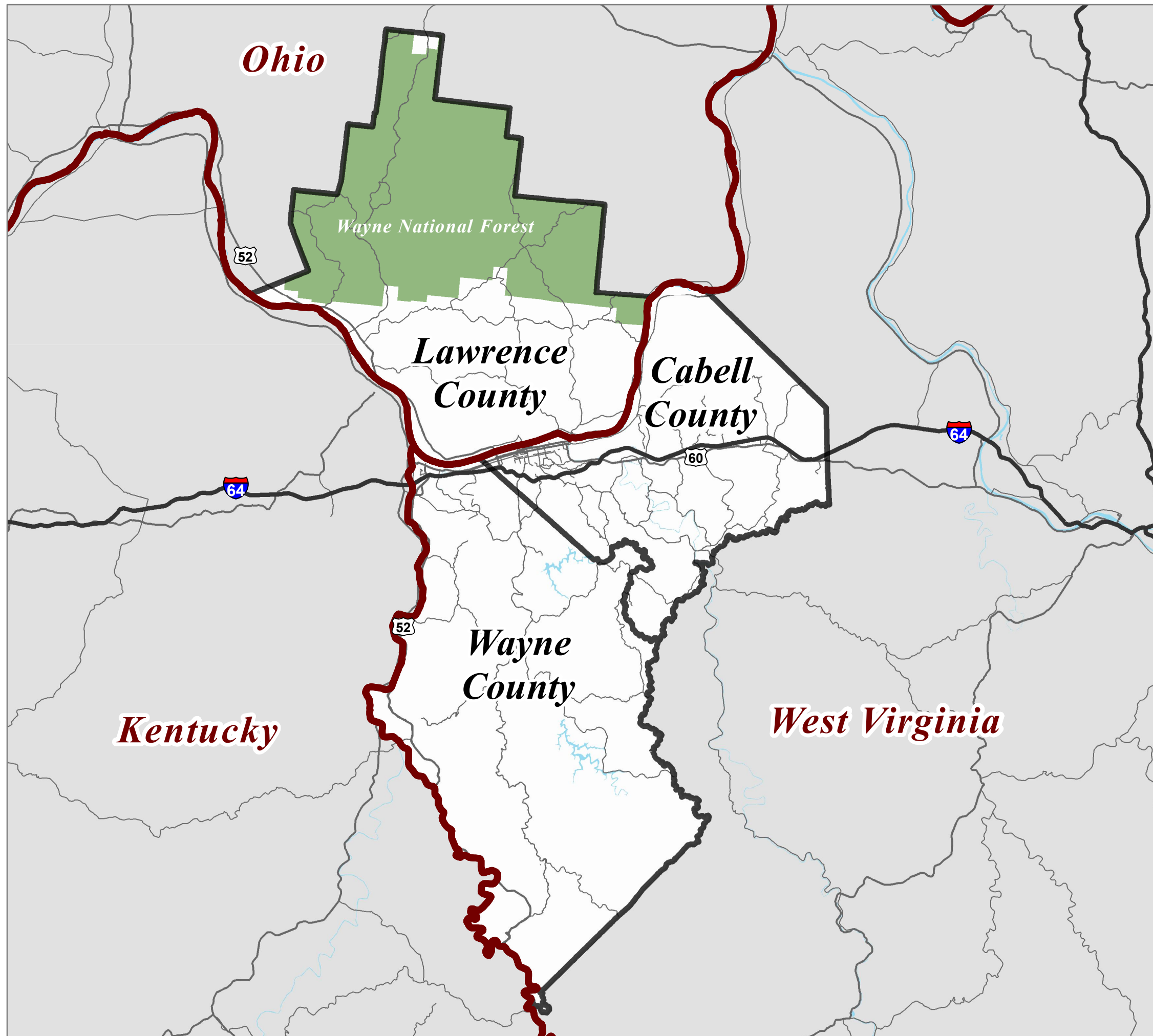
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Figure 1.1

## Study Area

- Interstate Highway
- US Highway
- State Highway
- Body of Water
- Wayne State Forest
- County Boundary
- State Boundary





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## Planning Process

Successful planning projects begin with an inclusive process of strong citizen and stakeholder involvement. This process recognizes citizens and community stakeholders have an intimate knowledge of the places where they live, work, and travel as well as the problems they encounter along the way. For the *KYOVA 2040 MTP*, the underlying principle for understanding local dynamics has been collaborative planning and consensus building. Local staff and the project team worked alongside active members of the community throughout the planning process. The underlying belief was transportation planning at its best is rooted in a coordinated public involvement platform that gathers, processes, and applies a diversity of opinions from residents, the business community, and civic groups. Two principles of public outreach were adhered to during the *KYOVA 2040 MTP*:

1. Citizens have a strong understanding of the transportation network and planning decisions have a direct impact on their daily lives.
2. Groups can share in the collective vision for a project even as they hold differing opinions on how this vision should be reached.

With respect to these two principles, the planning process for the *KYOVA 2040 MTP* was designed to create an open dialogue about the needs of current and future residents, merchants, and visitors.

## Public Outreach

Collaboration provided the core strategy for understanding the shifting dynamics of the KYOVA region and building consensus throughout the planning process. Local staff, the project team, and the public began working together at the outset. Issues identified during the public outreach efforts included the shifting of regional needs and priorities, the importance of gateways to downtown areas, the need for improved freight access and mobility, the desire for a transportation system that promotes economic development, and the value of improved connectivity. The public outreach process included the following components.

## Steering Committee

A Steering Committee was formed as a dedicated group of local officials, staff, stakeholders, and citizens to ensure the updated plan respected previous planning efforts, incorporated a diversity of viewpoints, and adhered to the chosen vision and goals. Beginning with its kick-off meeting, the committee held a series of work sessions to examine existing deficiencies and potential solutions for the various modes of the plan. The committee also participated in visioning and mapping exercises, provided feedback to the project team, and helped promote other public involvement efforts.



At its first meeting on January 19, 2011, the Steering Committee received an overview of the planning process, discussed the Public Involvement Plan, and identified existing conditions and major issues. The overarching issues and priorities identified by the committee provided important direction and insight as the core of the public outreach initiatives took shape.

The Steering Committee reconvened on November 1, 2011 to review and validate the vision and guiding principles for the plan and to provide feedback on the regional growth and land suitability analysis, and the Downtown Huntington Access Study.

At the third work session on October 11, 2012, the committee provided feedback on potential recommendations for each of the transportation modes and discussed adding, removing, or modifying projects. The committee also began the important process of prioritizing projects by discussing potential prioritization criteria for each recommendation type.

A fourth work session occurred December 6, 2012, at which the Steering Committee reviewed a series of exhibits that showed recommendations for the region by travel mode. The committee was then tasked with ranking projects on a scale of 1 to 5, with 1 representing lowest priority and 5 representing the highest priority.

The *KYOVA 2040 MTP* Steering Committee was an active group of stakeholders who helped identify existing issues, develop potential solutions, and prioritize recommendations. The Steering Committee included representation from the following:

- |                                      |  |   |
|--------------------------------------|--|---|
| • Cabell County                      | • CSX Railroad   | • Lawrence County Sheriff's Department    |
| • Lawrence County                    | • Norfolk Southern Railroad                                  | • Wayne County Sheriff's Department       |
| • Wayne County                       | • Huntington Regional Chamber of Commerce                    | • Cabell County Emergency Medical Service |
| • West Virginia Division of Highways | • Lawrence County Chamber of Commerce                        | • Wayne County Emergency Medical Service  |
| • Ohio Department of Transportation  | • Rahall Transportation Institute                            | • Cabell Huntington Hospital              |
| • City of Huntington                 | • Wayne County Economic Development Authority                | • St. Mary's Medical Center               |
| • City of Ironton                    | • Huntington Municipal Development Authority                 | • Allied Logistics                        |
| • Village of Barboursville           | • Cabell County Sheriff's Department                         | • HADCO                                   |
| • Tri-State Transit Authority        | • Ironton-Lawrence County Area Community Action Organization | • Prestera Trucking                       |
| • Tri-State Airport                  |  | • Superior Marine                         |
| • Marshall University                |  |   |

## KYOVA Policy Board

The KYOVA Policy Board is a group of elected officials, agency representatives, and citizens that provides strategic oversight and serves as the adopting body for transportation decisions in the region. The members of the board collaborate to develop priorities, build consensus, and outline direction to meet the needs of their community and the region. The KYOVA Policy Board was an important partner in the development of the *KYOVA 2040 MTP*. Several presentations and meetings were held with the Policy Board.

- **October 14, 2011**—The project team facilitated an interactive presentation that included an update on recent activities, including the Downtown Huntington Access Study charrette and open house, outreach meetings, and project documentation.
- **February 24, 2012**—At this meeting, the Policy Board was briefed on the second Steering Committee meeting and considered the final report for the Downtown Huntington Access Study. The Board also discussed air quality modeling and training and ongoing documentation for the *KYOVA 2040 MTP*.



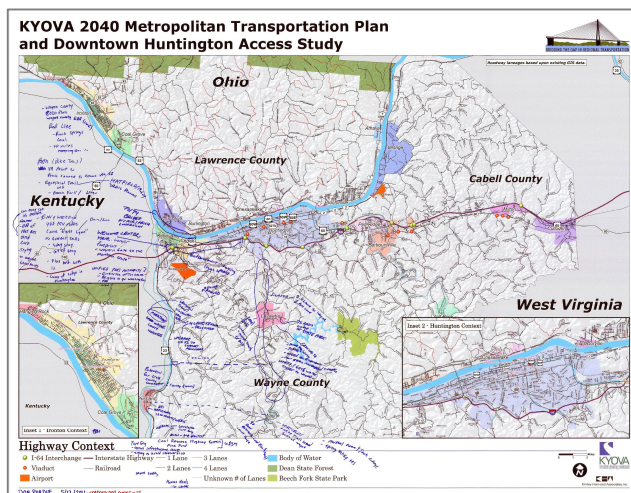
- **April 27, 2012**—This meeting explored upcoming changes in the KYOVA planning area, population and employment growth trends, travel times between destinations in the region, and land suitability for growth. Transportation strategies for regional growth were identified using the six major focus areas in the guiding principles.
- **October 12, 2012**—This meeting of the Policy Board focused on emerging issues related to the region's designation as a Transportation Management Area. The *KYOVA 2040 MTP* project team provided updates on the travel demand model and described the recommendations development process. The project team also discussed how the six guiding principles related to the multimodal transportation recommendations and introduced the purpose and functionality of the project sheets.



## Stakeholder Interviews

The project team, in consultation with KYOVA staff and the Steering Committee, identified a list of stakeholders that could offer specialized attention to specific matters affecting the *KYOVA 2040 MTP*. Meetings with the stakeholders occurred one-on-one or in larger focus groups if similar issues and needs were expected from a group of individuals. Many of the members of the Steering Committee were interviewed. The list of stakeholders included representatives from various departments and agencies within the region's municipalities and counties as well as the following:

- Tri-State Transit Authority
- Tri-State Airport
- West Virginia Department of Transportation
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- Huntington Regional Chamber of Commerce
- Cabell-Huntington Convention and Visitors Bureau
- St. Mary's Medical Center
- Marshall University
- Ohio University Southern
- Rahall Transportation Institute
- Huntington Municipal Development Authority
- Lawrence County Economic Development Corporation
- Lawrence County Community Action Organization
- Greater Lawrence County Chamber of Commerce
- Norfolk Southern
- CSX



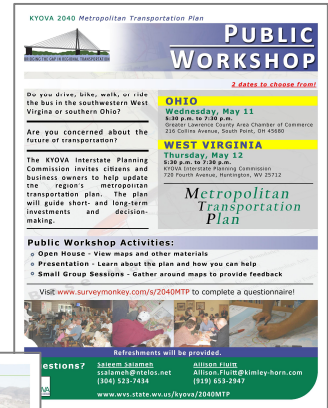

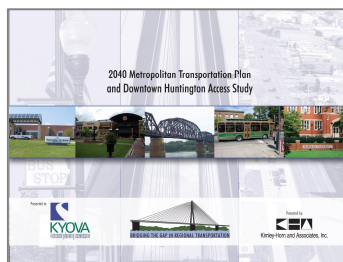
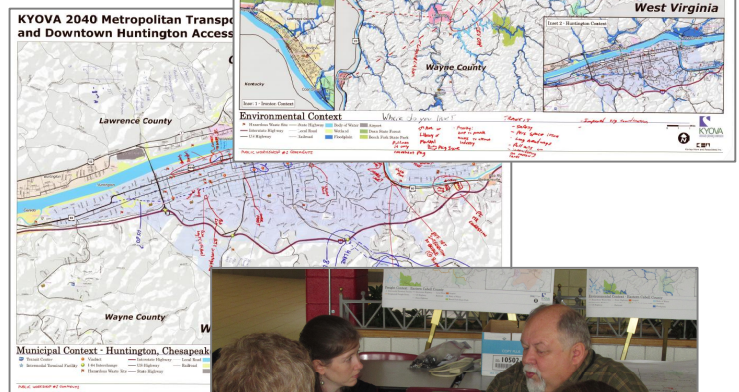
- ODOT Bicycle and Pedestrian Planning
- WVDOT Bicycle and Pedestrian Planning
- ODOT Office of Maritime
- WV Public Port Authority
- Ohio Rail Development Commission
- Cabell-Wayne Port District
- Port of Huntington Tri-State
- Greater Huntington Park and Recreation District
- Huntington Area Development Corporation
- Wayne County Economic Development Authority
- South Point Industrial Park
- Allied Logistics
- Huntington Foundation
- Neighborhood Institute of Huntington
- Jeff's Bike Shop
- Various freight operators/logistics companies

More than two dozen freight carriers and port owners also were reached through a freight-specific survey. Local issues and regional constraints identified by these stakeholders helped the project team develop a comprehensive plan and recommendations that address specific needs in the region. General issues and needs expressed through the stakeholder interviews included:

- The safe and convenient movement of goods and people should be the primary goal.
- Congestion is a problem on the region's major thoroughfares, including US 60.
- Safety needs to be improved, particularly at the viaducts and railroad crossings.
- The region needs to focus on the transportation infrastructure to attract economic development.
- Mobility should be improved by limiting egress to and from highways along commercial properties, providing good bus service, and continuing plans to provide bike trails.
- Success of the plan should be measured in part by whether recommended projects are realistic and are constructed. Success also will be evident if downtowns are strengthened and public spaces are used by pedestrians and bicyclists.
- In some cases, growth is hindering the transportation system until improvements catch up.
- Freight and passenger traffic is expected to increase at Tri-State Airport. The *KYOVA 2040 MTP* should provide feedback on airport access.

## Public Workshops

Citizens understand the strengths and weaknesses of the transportation system and feel the impact of transportation decisions on a daily basis. To tap into the special knowledge of the citizenry, the project team, assisted by the Steering Committee, led a series of public workshops that spanned the project timeline.



## Visioning Workshops

The first series of public interactive workshops were held to develop project goals, identify issues and concerns, and generate ideas and potential solutions. Following a brief open house in which participants viewed maps and other materials, the project team presented an overview of the planning process and discussed background information. The presentation laid the groundwork for the interactive sessions. After expressing concerns and needs in a large group Q&A setting, attendees gathered in small groups around maps to discuss specific opportunities and needs. The comments spanned all the elements of the transportation plan.

These workshops occurred on the following dates:

- **May 11, 2011** at the Greater Lawrence County Area Chamber of Commerce in South Point
- **May 12, 2011** at the KYOVA offices in Huntington
- **October 13, 2011** at the Kenova Council Chambers
- **April 26, 2012** at Cabell Midland High School

Many comments touched improved livability and increased efficiency for moving freight. The comments centered around the theme for improving quality of life and making the region more attractive for economic development. Selected comments included:

- Make all the viaducts in Huntington more people friendly, especially 8<sup>th</sup> Street
- Recommend road diets on downtown streets
- Consider how facilities connect across jurisdictions
- Shorten transit headways
- Create bike loops in rural areas
- Make intersections safer for all users

These and other comments received during the first series of workshops were used while evaluating existing conditions and developing potential recommendations for facilities, programs, and policies. As the plan took shape, the project team hosted additional workshops to refine recommendations and establish priority projects and initiatives.

## Recommendations Workshop

Prior to finalizing recommendations and developing a draft report, the project team hosted another series of workshops to gather feedback to refine plans for roads, intersections, trails, bicycle facilities, sidewalks, transit service, and freight infrastructure. Attendees viewed maps and exhibits that described ways to improve safety and mobility for people and freight. The project team also gave a brief presentation that described the process by which recommendations were developed.

The recommendations presented at these meetings included roadway infrastructure, freight, intersection safety, incident management, bicycle and pedestrian, and transit. In total, more than 90 specific recommendations were presented. Multimodal recommendations were presented and assigned a combination of six project objectives (i.e. guiding principles presented later in this chapter)—goods movement, barriers to mobility, congestion mitigation, livability and complete streets, multimodal integration, and tourism and recreation.

These workshops occurred on the following dates:

- **October 11, 2012** at the Kenova Council Chambers
- **December 6, 2012** at Marshall University

Scenes from the visioning workshops are shown on the next page. Overall, some of the plan's specific recommendations were adjusted based on the information provided at the workshop. Some projects were added, including new intersection safety projects and additional roadway connections. Some of the bicycle facility recommendations also were adjusted and language was added to the transit recommendations to support online bus tracking and leveraging local taxis for accessible transportation. By the time the draft plan was completed, the regional community had devised a shared vision for the area and identified multiple ways to fulfill it.



## Final Open House

A Final Open House will be scheduled once the draft report is complete. The Open House likely will be organized around a series of thematic stations, at which a member of the project team will discuss maps and exhibits related to existing conditions, recommendations, and priorities.

## Downtown Huntington Access Study

As a sister study to the *KYOVA 2040 MTP*, the Downtown Huntington Access Study provided an additional vehicle through which to gain public insight for the greater Huntington area. The Access Study identified transportation needs and opportunities in the downtown Huntington area and presented transportation strategies related to access and mobility for the central business district. The planning process was led by a Core Team of local stakeholders. The Core Team spearheaded a multifaceted outreach platform that featured a three-day public design charrette and public open house.

The multiday charrette was held June 7 to 9, 2011 and provided an intensive workshop environment where engineering, planning, and design ideas were generated, filtered, and discussed openly by participants. The event included an interactive opening reception on the first evening, a pin-up session to view progress on the second evening, and a final presentation on the last day.

Following the development of summary workbook, the project team hosted an Open House on October 13, 2011 in the Huntington City Hall Lobby. Comments received at the Open House were folded into the Final Report. The Open House corresponded with the Kenova visioning workshop and a KYOVA Policy Board presentation.







## Public Questionnaire

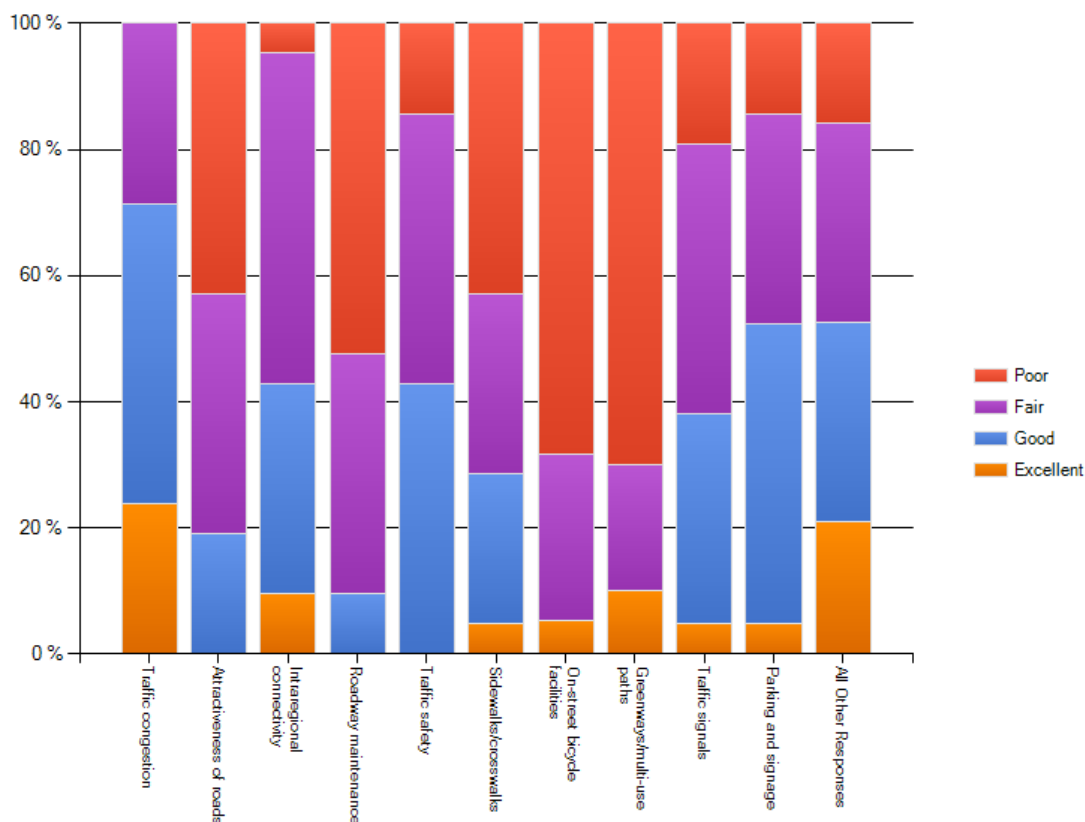
The project team in cooperation with the Steering Committee developed a public questionnaire to supplement other public outreach initiatives. The questionnaire was developed in an online format, and hard copies were distributed at public outreach events (e.g. public workshops and Steering Committee meetings) and made available at community facilities in the region.

The results of the questionnaire provided valuable information on a variety of transportation and land use topics to help gauge the community's perception of the region's transportation network. The questionnaire included general questions for the transportation system as well as questions for specific modes. Other questions challenged respondents to make choices related to transportation funding, modal elements, and priorities. The responses proved helpful in assessing the transportation system and compiling multimodal recommendations.

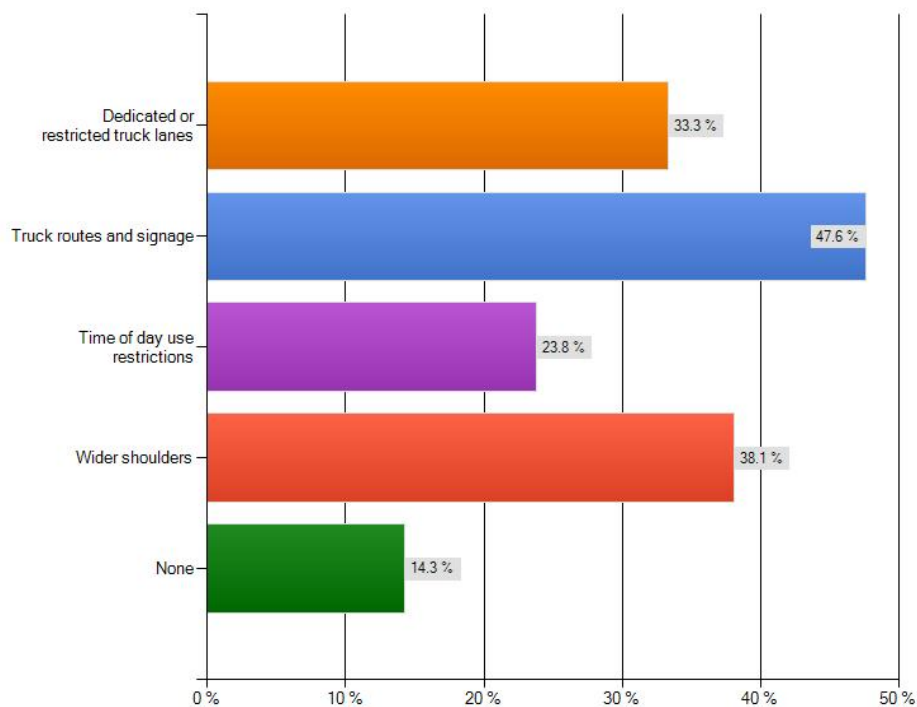
The questionnaire confirmed the trends expressed during other public outreach initiatives. More than 60% of respondents rated the transportation system as fair with only 26% rating the system excellent or good. When asked if transportation has improved, stayed the same, or worsened in the last few years, nearly half (48%) indicated conditions have stayed the same. Notably, a much higher percentage (39%) stated conditions have improved than stated conditions have worsened (13%). These responses validate the work by KYOVA staff and local leaders since the adoption of the 2035 Long-Range Transportation Plan. Likewise, the results suggest that the 2035 plan accurately reflected the needs of the community and included short-term strategies to improve the transportation network.

The graphs on the following page illustrate some of the trends as expressed through the public questionnaire. When necessary, additional results specific to individual elements are detailed in the appropriate chapters of this report.

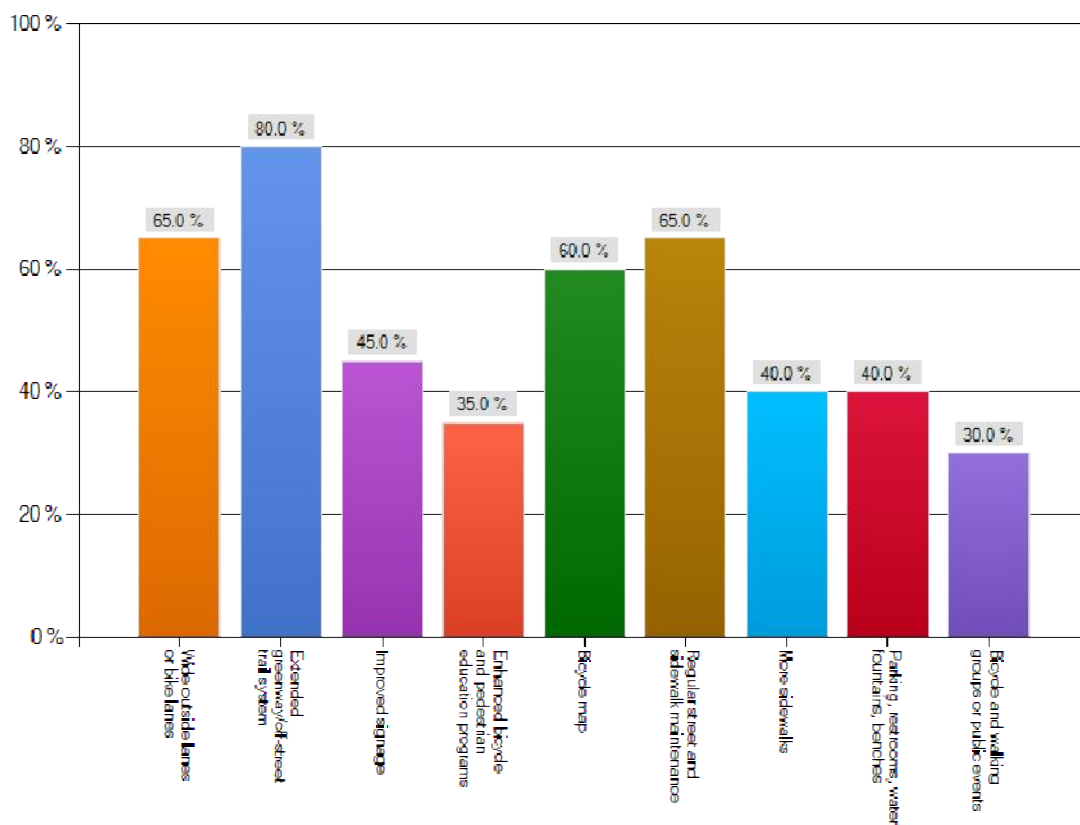
### How do you rate the following in the region?



### Which improvements are needed to handle truck traffic on major roads?

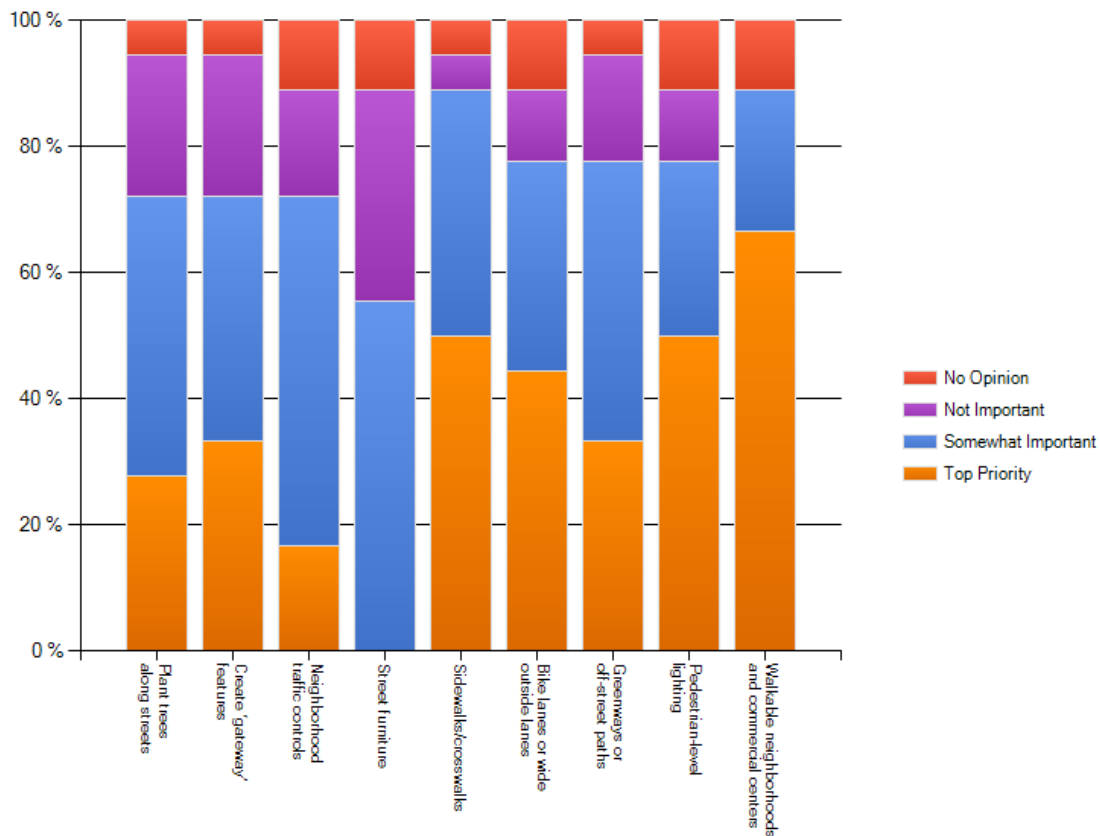


### What improvements could be made to increase your use of bicycling or walking?

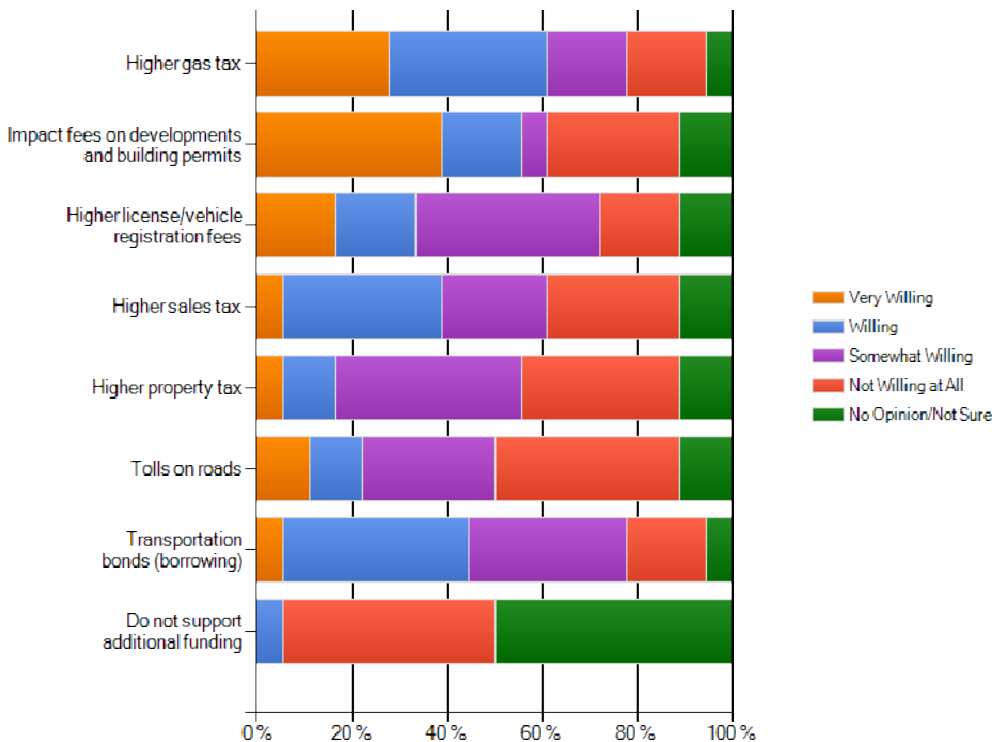




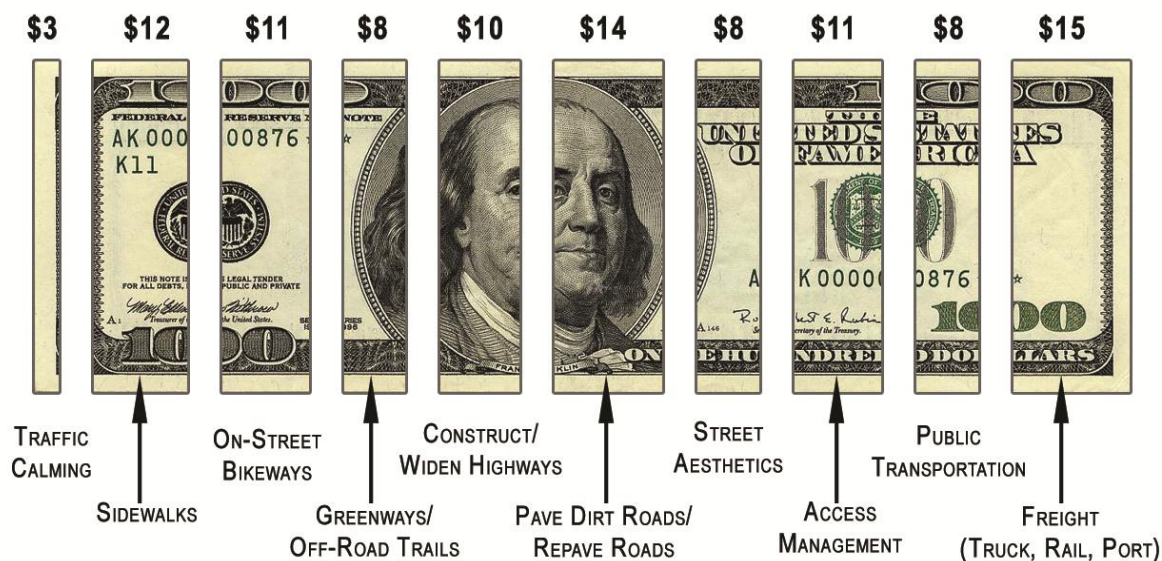
### How important are the following improvements?



### Would you support any of the following funding sources?



### If you had \$100 to spend on transportation improvements, how would you spend it?



### Previous Planning Efforts

The *KYOVA 2040 MTP* should be coordinated closely with other state, regional, county, and local plans and/or policies. Most importantly, the updated plan must recognize the planning process and outcomes of the 2030 and 2035 plans. This section provides a general review of transportation plans prepared within the region that may influence potential recommendation development and reasonable implementation. The land use element (**Chapter 8**) included a review of local land use plans and policies.

#### **Huntington-Ironton Area Transportation Study (HIATS) – 2035 Long-Range Transportation Plan**

The KYOVA Year 2035 Long-Range Transportation Plan was completed in May 2009 by the KYOVA Interstate Planning Commission in coordination with WVDO'T and ODOT. Building upon the 2030 Long-Range Transportation Plan adopted in April 2005, the 2035 plan outlines the regional vision for the transportation system over the next twenty-five years in accordance with the requirements of SAFETEA-LU.

The goals established to guide the development of the 2035 plan formed the basis for the goals and objectives for the *KYOVA 2040 MTP* presented later in this chapter.

The 2035 LRTP establishes maintenance projects for existing infrastructure as the highest priority and identifies new projects that will meet emerging needs over the next twenty-five years. These projects were based on needs for highway, pedestrian, bicycle, freight, transit, and airport systems within the region identified through a multimodal analysis. Recommendations are categorized by state as well as by short range and long-range horizons. The plan estimates approximately \$380 million will be available for maintenance and new projects from WVDO'T, ODOT, FTA, and FHWA through 2035. The plan also included an unconstrained list of projects, which address transportation needs within the region for which current funding does not exist. These projects include new intermodal facilities, bridge replacements, transit systems, and roadway expansion and safety projects.



## Access Ohio 2040

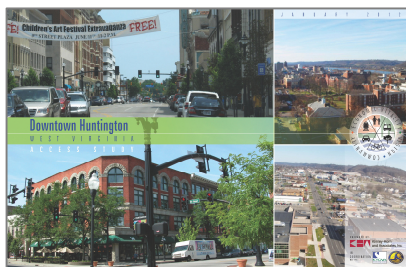
Access Ohio 2040 is an update to the state's long-range transportation plan. The Ohio Department of Transportation (ODOT) expects to complete the plan in 2013. The updated plan will inventory, forecast, and analyze transportation trends and issues in Ohio to guide ODOT transportation policies and investment strategies.



Access Ohio 2040, based on input from stakeholders and the public, will document existing conditions for all travel modes, inventory transit ridership, analyze crash data, and document environmental assets. Future conditions will be projected for ODOT roads, including pavement and bridge conditions, travel demand, and congestion. The plan also will demonstrate consistency with other ODOT plans as well as plans from metropolitan planning organizations, including the KYOVA Interstate Planning Commission. Finally, the plan will identify financial resources available for implementation.

## Downtown Huntington Access Study

Completed in January 2012, the Downtown Huntington Access Study was a sister study to the KYOVA 2040



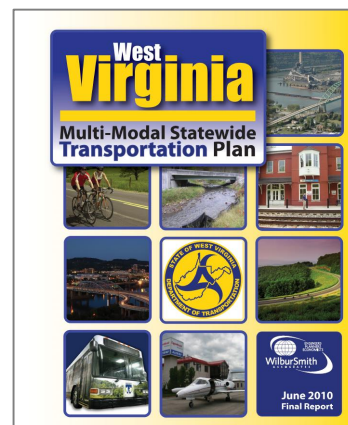
MTP. The Access Study addressed the needs for the downtown Huntington area. Using a public charrette process, this study considered the transportation and land use issues facing the downtown area with added focus on issues such as parking demand, branding and signage, redevelopment opportunities, downtown gateways and barriers, and multimodal integration.

Outreach efforts for the Downtown Huntington Access Study and the KYOVA 2040 MTP were coordinated and the results of the Access Study have been folded into the larger regional planning effort. The document is organized around a series of issues and recommendations. Transportation issues included one-way to two-way street conversions, intersections, corridors, green streets, parking supply and demand, bicycle and pedestrian travel, and transit service.

## West Virginia Multimodal Statewide Transportation Plan

The West Virginia Multimodal Statewide Transportation Plan, a 25-year plan focusing on the preservation and expansion of the state's transportation network, was completed in June 2010. By federal law, each state is required to maintain a long-range transportation plan that meets planning requirements established in SAFETEA-LU. The West Virginia statewide plan serves as a foundation document for the West Virginia portion of the KYOVA planning area.

The statewide plan outlines needs for roadways, bridges, transit, rail, ports, and aviation. It includes a financial analysis covering historic funding levels and future revenue forecasting as well as detailed methodology for evaluating the costs and benefits of

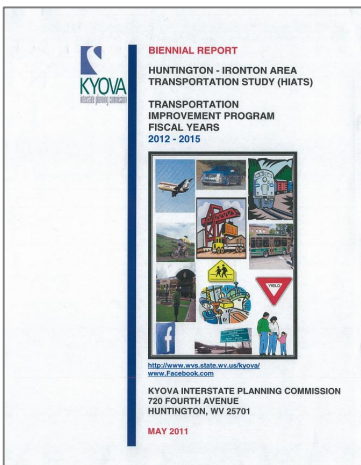


highway and bridge projects. While bicycle and pedestrian projects do not appear to be included in report, these and other modes were evaluated by listing specific project benefits and estimating potential future demand. A two-step prioritization process for highways and bridges included a qualitative screening base on purpose and need and a benefit/cost analysis that assigned each project one of four tiers (excellent, good, fair, and poor).

## KYOVA Transportation Improvement Program: Fiscal Years 2012-2015

The Transportation Improvement Program (TIP) is a four-year schedule of federally assisted transportation projects for the three-county region as required under the SAFETEA-LU legislation. The projects cover roadway, transit, bicycle, pedestrian, and freight transportation. The TIP is revised and issued biennially by the KYOVA Interstate Planning Commission in coordination with ODOT and WVDOT. The projects are listed with cost estimates and funding sources, and the total list of projects, once compiled, must meet federal air quality conformity requirements under the 1997 PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS) and the 1997 eight-hour ozone NAAQS. The development of the TIP is primarily guided by the KYOVA Year 2035 Long-Range Transportation Plan.

The TIP must be financially constrained, so a financial plan included in the TIP demonstrates that the list of projects can be implemented within the financial resources reasonably expected to be available in the KYOVA area over the next four years. Some projects included in the TIP are completely funded using federal money, while others are supplemented with state and local dollars. The current 2012-2015 total TIP program cost is \$220 million including all Federal, State, and Local sources with approximately \$55 million allocated to Ohio projects and \$165 million allocated to West Virginia projects.



## Vision, Guiding Principles, and Goals

The vision statement for the *KYOVA 2040 MTP* was developed in collaboration with the Steering Committee and validated through the other public outreach channels. The Vision Statement, which guided the planning process, is as follows:

**We envision a growing region serviced by a safe and sustainable transportation system that provides real choice among modes of travel. Our transportation system will contribute to an enhanced quality of life by providing attractive connections between destinations for motorists, bicyclists, pedestrians, and transit users without compromising air quality or cultural and environmental resources, and it will support the efficient movement of people and goods at both the local and regional scale.**

The eight MAP-21 planning factors described earlier in this chapter represent a way federal and state officials can assess how a transportation plan addresses the unique needs of today's complex transportation systems. Guiding principles, goals, and objectives also were developed to help reinforce the connection between present-day trends in transportation planning and the needs and desires expressed early in the planning process for the *KYOVA 2040 MTP*. The guiding principles provide overarching themes for the development of the plan, while the goals and objectives outline specific ways to achieve the plan's vision.

## Guiding Principles

The Guiding Principles represent a set of value statements for six major transportation priorities identified for the *KYOVA 2040 MTP*. The principles define a series of transportation strategies that aim to guide regional growth. The guiding principles were shared with the public during the planning process and workshops. As multi-modal strategies are developed, the project team will revisit the guiding principles to determine which principles a given project or strategy addresses. The result of this analysis will provide a portion of the project evaluation process.

### Goods Movement

With the passage of SAFETEA-LU and MAP-21, national policy leaders reaffirmed the importance of planning freight and aviation at a regional scale. Moving goods continues to be one of the most expensive parts of the production cycle, and a significant way to reduce costs for end users is to ensure the efficient movement of goods by highway, rail, and air. A key consideration of the *KYOVA 2040 MTP* is the movement of goods within and through the region. Changes to the transportation system in the KYOVA region—a hub of industrial activity with highway, air, maritime, and rail facilities—will impact areas beyond the KYOVA boundary. Maintaining and improving the infrastructure not only promotes economic growth across the country but also provides long-term economic stability for the KYOVA region and the surrounding area. In summary, projects fulfilling the Goods Movement guiding principle seek to:



- Promote freight movement; and
- Enhance intermodal connections.

### Barriers to Mobility

The long-range transportation planning process creates the community's comprehensive guide to developing a regional transportation system that accommodates not only the current mobility needs of residents but also looks to the future to anticipate where new needs will arise. As with other areas across the nation, a transportation network ripe with mobility is critical for sustaining and extending economic development. The Ohio and Big Sandy Rivers, mountainous terrain, and network of rail corridors create a collection of natural and manmade barriers that challenge local and regional mobility. Overcoming these barriers is an important consideration of the *KYOVA 2040 MTP*. Projects fulfilling the Barriers to Mobility guiding principle seek to:



- Address concerns of existing viaducts;
- Consider bridge improvements;
- Encourage system maintenance;
- Develop intersection-level improvements; and
- Improve system connectivity.

### Congestion Mitigation

Congestion occurs for numerous reasons but usually from bottlenecks (primarily at intersections) and when too many people take to the road on a route that already operates at or over capacity. Congestion often is the side effect of deliberate growth, and our response to congestion can make it worse. As residential, commercial, and industrial growth occurs and more vehicles take to the road, roadway improvements are needed to reduce traffic congestion and improve safety. These roadway improvements often enhance access, thus raising land values and attracting more development. The resulting cycle suggests that building additional





capacity can only be a part of the answer. Best practices suggest addressing congestion through improvements to existing roads, strategic construction of new roads, interconnectivity, opportunities for safe and convenient walking and bicycling, improved transit opportunities, and mutually supportive transportation and land use initiatives. Projects identified under the Congestion Mitigation guiding principle focus on roadway improvements but are balanced by multimodal projects and initiatives. Congestion Mitigation projects seek to:

- Address issues identified in travel demand model;
- Advocate strategic capacity improvements (i.e. widening existing roads and constructing new facilities);
- Implement access management on key corridors; and
- Improve connectivity through collector streets.

### ***Livability and Complete Streets***

As the public realm, streets need to reflect the values of the community and reinforce a unique sense of place to be enjoyed by citizens—whether in urban, suburban, or rural contexts. In recent years, municipalities across the country have started implementing “complete streets” as one way to transform transportation corridors from vehicle-dominated roadways into community-oriented streets that safely and efficiently accommodate all modes of travel—not just motor vehicles. The notion of complete streets connects the functionality of moving people and goods with the livability of the corridor and surrounding private property. Therefore, design considerations supportive of complete streets include elements in both the traditional travel as well as adjacent land uses for reinforcing the desired sense of place. The hope is to maintain quality of life while balancing the mobility needs of the area and accommodating future growth. Common goals for complete streets are economic revitalization, business retention and



expansion, and public safety. With this in mind, projects fulfilling the Livability and Complete Streets guiding principle seek to:

- Enhance gateways, signage, and beautification;
- Integrate land use strategies with transportation goals;
- Create corridors that serve multimodal needs;
- Enhance safety; and
- Emphasize potential growth areas.

### ***Multimodal Integration***

Planning appropriate transportation infrastructure that guides growth in a way that enhances quality of life is not an easy feat. Challenges to planning such infrastructure include deficiencies in existing roads, lack of interconnectivity between developments, natural barriers, and disconnect between land use and transportation decisions. Decision-makers face tough choices as they develop a blueprint to overcome these challenges. In the past, transportation planning focused improvements on the network of highways and major roads. We now recognize such improvements can help only so much. Strategic investment in major roadways must be balanced with improvements to the bicycle, pedestrian, transit, rail, and freight network to keep people and goods moving, allow better access and mobility for residents and visitors, and enhance the way of life in the KYOVA region. Projects fulfilling the Multimodal Integration guiding principle seek to:



- Develop bicycle and pedestrian priorities;
- Created coordinated transit improvements and strategies for system maintenance;
- Promote passenger rail and intercity bus; and
- Support economic vitality.



## Tourism and Recreation

Tourism is not possible without travel. Likewise, recreation often takes the form of movement and often conflicts with other travel purposes (e.g. commuting to work). With abundant natural resources and rich heritage, tourism and recreation plays a large role in how people identify with the region. Transportation in the KYOVA region can be discussed without considering tourism, but in no way can tourism thrive without the means to travel safely and efficiently. Transportation is an integral part of tourism and recreation, so the *KYOVA 2040 MTP* includes careful consideration of critical destinations and the way people access them. This is accomplished in part by establishing shared visions and addressing objectives without compromising the unique character of our communities. Protecting the character of our communities requires a balanced approach to accommodating future growth and preserving valued open spaces. Therefore, projects fulfilling the Tourism and Recreation guiding principle seek to:



- Promote economic vitality;
- Attract new development;
- Promote multimodal connections; and
- Enhance aesthetics.

## Goals

Goals and objectives were developed to ensure the plan addresses regional transportation needs and complies with MAP-21. The goals offer a general guide to fulfill the vision statement, while objectives define results that must be achieved or actions that must be followed to reach their respective goal. Goals and objectives are not mutually exclusive of each other and often conflict with each other. For example, a project that encourages economic development could be excluded from the plan because it may endanger wetlands. The cumulative effect that each project has on the plan's goals and objectives must produce a significant net benefit before it can be incorporated into the MTP. These goals are listed in no particular order.

**Goal #1: Preserve, maintain, and enhance the existing transportation system.**

### Objectives

- Give priority to projects that improve the condition of the existing transportation system or upgrade existing transportation facilities.
- Improve connections between modes of transportation.
- Seek opportunities to use access management and design treatments to improve the mobility of strategic corridors.

**Goal #2: Support the economic vitality of the region, especially by enabling global competitiveness, productivity, and efficiency.**

### Objectives

- Improve access to intermodal facilities (ports, aviation, inland terminals) for people and freight.
- Integrate into the planning process the aviation needs of the region, whether general aviation or commercial-based, as a way to attract additional economic activity.
- Subscribe to efforts that encourage the development of tourism in the region.
- Give priority to transportation programs that retain existing businesses and attract new businesses to the area.



**Goal #3:** Improve the operational efficiency of the transportation network.

**Objectives**

- Encourage initiatives that promote transit and other transportation modes as alternatives to the single occupancy vehicle.
- Promote operational efficiency through the use of technological improvements.
- Support measures that reduce traffic congestion and peak travel demand.
- Identify opportunities to integrate Intelligent Transportation Systems (ITS) as part of an overall transportation management strategy.

**Goal #4:** Enhance the safety of the transportation system for all users.

**Objectives**

- Provide a safe traveling experience for all users by implementing safety measures at high priority crash locations and improving facilities for bicyclists and pedestrians.
- Promote programs and projects that reduce the number and severity of traffic accidents, especially at railroad crossings.
- Give priority to construction projects that eliminate roadway hazards, which would improve safety.
- Support the development and implementation of roadway design standards that improve highway safety.

**Goal #5:** Enhance the security of the transportation system for all users.

**Objectives**

- Review each transportation improvement for its impact on neighborhoods, travel times, and access to community services.
- Give priority to construction projects that eliminate roadway hazards and improve security.
- Support the development and implementation of roadway design standards that improve highway security.
- Protect the capacity of I-64, strategic bridges and other regional corridors that serve as evacuation routes for natural disasters.
- Maintain and enhance the security of the existing disaster evacuation systems.

**Goal #6:** Protect and enhance the environment and promote energy conservation.

**Objectives**

- Continue to develop plans and programs that will help the KYOVA region achieve the federal clean air regulations.
- Integrate land use and transportation policies to limit impacts to sensitive land, focus development in prime locations, encourage trips by modes other than personal automobiles, and enhance the region's quality of life.
- Minimize direct and indirect environmental impacts of the transportation system by first considering improvements to the existing system before selecting strategic locations for newly constructed facilities.
- Minimize any detrimental impacts of proposed transportation improvements upon neighborhoods.
- Support mixed-use development to encourage biking and walking, in turn improving the KYOVA region's environment and the health of its citizens.



**Goal #7:** Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

**Objectives**

- Connect homes, parks, community activity centers, employment hubs, and other key destinations to one another through a coordinated network of bicycle facilities and off-road trails.
- Promote a pedestrian-friendly environment by filling gaps and improving connectivity throughout the sidewalk system and to key destination or activity nodes.
- Create a system of interconnected streets to improve mobility and distribute traffic efficiently and appropriately by purpose and function.
- Encourage Complete Streets initiatives, streetscape and traffic calming features in roadway designs for collector and residential streets.

**Goal #8:** Maintain financial responsibility in the development and preservation of the transportation system.

**Objectives**

- Uphold cost-effective operating strategies for all transportation services.
- Ensure that all transportation projects and programs utilize available funds in the most cost-effective and financially responsible manner possible.
- Give priority to those transportation projects and programs that provide the greatest net benefit at the least cost.
- Seek out additional federal and state transportation funds whenever possible.

The goals and objectives for the *KYOVA 2040 MTP* were based on a review of the previous LRTPs and updated to account for recent planning efforts and emerging transportation trends in the region. The *KYOVA 2040 MTP* goals and objectives also were developed in consideration of the SAFETEA-LU and MAP-21 planning factors. **Table 1.1** shows how the *KYOVA 2040 MTP* goals and objectives address these federal planning factors.

**Table 1.1 – KYOVA 2040 MTP and MAP-21 Planning Factors**

MAP-21 Planning Factor	2040 MTP Goal/Objective
1 Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.	2, 7
2 Increase the safety of the transportation system for motorized and non-motorized users.	4 Selected objectives under Goal 7
3 Increase the security of the transportation system for motorized and non-motorized users.	5 Selected objectives under Goal 3, 6
4 Increase the accessibility and mobility of people and freight.	6, 7 Selected objectives under Goal 2, 3, 4, 5
5 Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.	1, 2, 3, 6, 7, 8
6 Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.	1, 2, 3, 4, 5, 6, 7, 8
7 Promote efficient system management and operation.	1, 2, 3
8 Emphasize the preservation of the existing transportation system.	1, 2, 3, 4, 5, 6, 8



## Plan Organization

Great plans often fail to reach their potential due to the ineffective communication of the vision, process, outcome, and recommendations. Documentation of the *KYOVA 2040 Metropolitan Transportation Plan* blends the description of the vision and statement of existing conditions with a detailed list of policies, operational strategies, and projects to achieve the vision. The *KYOVA 2040 MTP* consists of a series of elements dedicated to specific modes of travel. While each element is presented in a standalone chapter, the visioning, analysis, and recommendations for the elements were created concurrently to produce a series of actions that lead to an integrated intermodal transportation system that efficiently moves people and goods within and beyond the KYOVA region.

The collective recommendations and strategies documented through the *KYOVA 2040 MTP* support the region's vision for a safe and sustainable transportation system that provides real choice among modes of travel. In addition to the introductory chapter, the following elements complete the *KYOVA 2040 MTP*:

**Social and Environmental Element** (Chapter 2) – Examines demographic trends, environmental characteristics, and social resources to provide a spatial frame of reference to assess the relative impacts of recommended projects on the community.

**Existing Roadway Element** (Chapter 3) – Reviews the status of the existing roadway system as a precursor to identifying needs and priorities for planning improvements. Evaluates roadway system in terms of functional classification, corridor operations, and traffic safety and crash history.

**Future Roadway Element** (Chapter 4) – Describes roadway infrastructure recommendations, including capacity improvements, intersection enhancements, and access management strategies. Provides an overview of ITS and Incident Management strategies. Evaluates each project's impact on resources, congestion, safety, security, and benefits to the transportation system.

**Bicycle and Pedestrian Element** (Chapter 5) – Evaluates existing bicycle and pedestrian system and recommends facilities to expand the network of on-street bicycle facilities, off-street paths, and critical sidewalks. Recommends education, encouragement, and enforcement programs to promote safe and efficient travel by bicycle and on foot.

**Transit Element** (Chapter 6) – Inventories the existing public transportation system including fixed-route, demand-response, and intercity services. Analyzes existing services and provides a series of service improvement and management alternatives.

**Aviation, Freight, Maritime, and Rail Element** (Chapter 7) – Reviews relevant data, inventories existing facilities, and presents an overview of travel flows based on the element's four modes. Summarizes alternatives that address gaps and intermodal connectivity needs.

**Land Use Element** (Chapter 8) – Documents land suitability, which serves the dual purpose of supporting socioeconomic inputs for the travel demand model and blending the land use and transportation considerations for the plan. Identifies future growth areas and presents a general framework plan based on a series of Character Areas.

**Financial Plan** (Chapter 9) – Evaluates potential funding sources, revenues, and probable costs for recommendations. Creates a set of interim year recommendations and 2040 horizon year recommendations as well as identifies a series of unfunded needs.

**Implementation Plan** (Chapter 10) – Presents priorities and ways to implement the multimodal recommendations. Includes an action plan to assist local decision-makers and planning staff in taking the necessary steps to implement the plan.

**Air Quality Conformity** (Chapter 11) – Tests the recommendations presented in the MTP to ensure they do not negatively impact the region's air quality. Special attention is given to the performance of projects as they relate to federal particulate matter and ozone standards.