

# GREENUP & BOYD COUNTY FREIGHT PLAN



PREPARED FOR THE  
KYOVA INTERSTATE  
PLANNING  
COMMISSION AND  
THE KENTUCKY  
TRANSPORTATION  
CABINET

EXECUTIVE SUMMARY

# ACKNOWLEDGMENTS

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## DRIVING THE FREIGHT CONVERSATION

The purpose of the Greenup/Boyd County Freight Plan is to develop a comprehensive understanding and profile of the two counties' existing multimodal freight network. This effort is intended to ensure that freight needs are considered as part of the region's transportation planning and investment decision-making process.

While this plan focuses on Greenup and Boyd Counties, it is important to understand that freight does not recognize jurisdictional borders. Because of this, the plan must support the KYOVA Interstate Planning Commission's Metropolitan Transportation Plan and also the State Freight Plan goals of Kentucky, Ohio, and West Virginia.

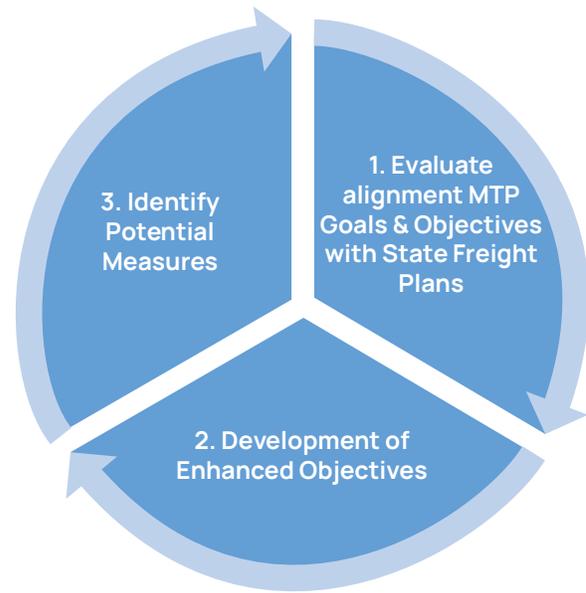


Figure 1: Development of Freight Objectives and Performance Measures

To provide the framework for the overall freight plan, the project team developed an initial list of freight objectives designed to support the KYOVA 2040 Metropolitan Transportation Plan (MTP) and State Freight Plan goals. Following the definition of freight-related objectives, this plan identified potential performance measures to support the region's progress toward achieving these objectives. The process of defining the potential objectives and performance measures is outlined in Figure 1. The objectives and performance measures were reviewed by KYOVA staff and the Steering Committee.

KYOVA also identified a series of goals and objectives to support the overall vision of the MTP. Each MTP goal is supported by objectives that are actionable and have steps that support the achievement of each respective goal. There are many objectives that either support or directly mention freight mobility. These goals are detailed on the following page.

## 1

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

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

## 2

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

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

## 3

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

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

## 4

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

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

5

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

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

6

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

1. Continue to develop plans and programs that will help the KYOVA region achieve the federal clean air regulations.
2. 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.
3. 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.
4. Minimize any detrimental impacts of proposed transportation improvements upon neighborhoods.
5. Support mixed-use development to encourage biking and walking, in turn improving the KYOVA region's environment and the health of its citizens.

7

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

1. 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.
2. Promote a pedestrian-friendly environment by filling gaps and improving connectivity throughout the sidewalk system and to key destination or activity nodes.
3. Create a system of interconnected streets to improve mobility and distribute traffic efficiently and appropriately by purpose and function.
4. Encourage Complete Streets initiatives, streetscape and traffic calming features in roadway designs for collector and residential streets.

8

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

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

## PERFORMANCE MEASURES

Performance measures are an effective way to focus attention, aid in decision-making, and monitor progress towards achieving the Freight Plan's objectives. Additionally, performance measures that are understandable and streamlined can help improve communication with freight stakeholders and elected officials. To be effective, performance measures should serve three purposes:

- **Planning:** Measure the effectiveness of planned improvements or scenarios.
- **Implementation:** Drive performance-based programming and project selection processes.
- **Accountability:** Track progress towards achieving goals.

When developing freight performance measures, it is important that selected measures can be easily reproduced and sustained over time to capture larger regional trends and ensure the effects of KYOVA actions are visible. Criteria to consider when developing performance measures include:

- **Data Availability:** The required data must be easy to collect, repeatable, reliable, accurate, and timely.
- **Strategic Alignment:** The measures should align with the identified freight objectives.
- **Easily Understood:** The measures must be easy to communicate to external stakeholders.
- **Causality:** The measures must focus on activities under KYOVA's control or influence.
- **Value to Decision-Makers:** A feedback loop should show decision-makers the impacts of their decisions.

It is equally important to remember that performance measures are a tool to achieve the freight objectives, not a grade. The measures must be applied to factors within KYOVA's span of control – otherwise KYOVA risks being held accountable for results outside of their influence. Taking these considerations into account, this plan identified a series of draft performance measures to help KYOVA achieve the freight objectives as displayed in Figure 2.

## Executive Summary

MTP Goal	Freight Objective	Potential Measures
Preserve, maintain, and enhance the existing transportation system.	Seek opportunities to use access management, pavement/bridge management techniques, and design treatments to improve the mobility of the KYOVA Freight Network.	<ul style="list-style-type: none"> <li>• Pavement ratings on the Freight Network</li> <li>• Bridge ratings on Freight Network</li> </ul>
Support the economic vitality of the region, especially by enabling global competitiveness, productivity, and efficiency.	Give priority to projects that improve access to intermodal facilities and/ or focus on business retention and expansion opportunities.	<ul style="list-style-type: none"> <li>• TTTR on Freight Network</li> <li>• Delay on Freight Network</li> </ul>
Improve the operational efficiency of the transportation network.	Promote highway, transit and freight operational efficiencies through the use of technological improvements.	<ul style="list-style-type: none"> <li>• Operational Investments/TIP Total</li> </ul>
Enhance the safety of the transportation system for all users.	<p>Promote programs and projects that reduce the number and severity of traffic crashes, especially at railroad crossings.</p> <p>Reduce commercial truck crashes.</p>	<ul style="list-style-type: none"> <li>• Railroad Grade Crossing Crashes</li> <li>• Truck Crash Rate</li> </ul>
Enhance the security of the transportation system for all users.	Protect the capacity of I-64, strategic bridges and other regional corridors that serve as critical freight and evacuation routes.	<ul style="list-style-type: none"> <li>• V/C Ratio – Critical Routes</li> <li>• LOS – Critical Corridors</li> </ul>
Protect and enhance the environment and promote energy conservation.	Minimize detrimental impacts of freight movement upon neighborhoods.	<ul style="list-style-type: none"> <li>• EJ Impacts</li> <li>• Emissions (Model Output)</li> </ul>
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight	<p>Encourage integrated design approaches that include deliveries along and in a complete streets context, streetscape or traffic calming initiative(s).</p> <p>Promote infrastructure investment that supports multimodal freight connectivity points.</p>	<ul style="list-style-type: none"> <li>• Investment in connectivity points and/or last mile facilities that serve modal hubs</li> </ul>
Maintain financial responsibility in the development and preservation of the transportation system.	Evaluate multimodal freight mode options before investing in added highway capacity.	<ul style="list-style-type: none"> <li>• Local investment in the KYOVA Freight Network</li> <li>• % of spending on preservation on the KYOVA Freight Network</li> </ul>

Figure 2: Potential Freight Objectives and Performance Measures

## FREIGHT SYSTEM PROFILE

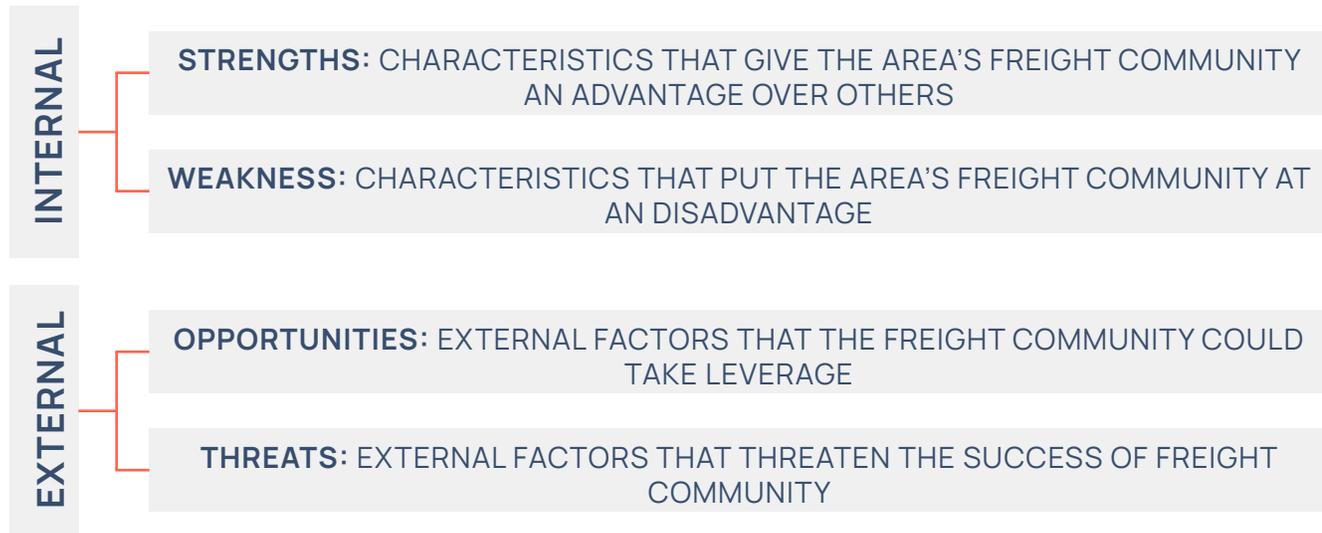
After developing a vision for the area's freight future, the next (and important) step is developing a Freight System Profile to better understand how the region's freight system functions. The Freight System Profile is divided into two sections:

- **Freight Networks and Facilities:** This section describes the existing freight network components within the two counties and their associated national, state, regional, and local designations. The conclusion of this section also identifies a series of local roadways that should be considered as part of a KYOVA-designated local freight network, providing last-mile connections between the key freight facilities in the study area to the existing state and national freight networks.
- **Existing Conditions:** This section provides an overview of the various aspects of the local freight infrastructure, including an estimate of average daily truck trips, truck travel time reliability, key origins and destinations of truck trips in the study area, and the condition of infrastructure (such as roadway pavement and bridges). The section concludes the identification of multiple freight impediments and how they influence truck freight travel patterns in the region, such as bridges with low vertical clearance and weight restrictions, potential roadway geometric constraints, and an assessment of how the Ohio and Big Sandy River bridge crossings are used.



## SWOT ANALYSIS

Based on the results of the freight profile, stakeholder feedback and research a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was conducted to frame the development of the project's recommendations.



## KEY TAKEAWAYS

There are three broad themes arising from this analysis:

1. The two counties have capacity in the multimodal transportation network and land available for logistical and industrial development. The region's highway network is relatively uncongested and other modes, such as rail and water, have experienced a decline in goods transported that frees up capacity. There are also several brownfield sites with highway, rail, and waterway connections that could be repurposed (subject to environmental remediation) for the logistics industry.
2. While the rail and waterways continue to support the movement of bulk commodities for the energy and heavy industrial sectors that have an origin or destination for goods within the two counties, these industries are in decline or their use of these mode is in decline. Identifying replacement traffic that could offset this decline is very challenging.
3. The two counties' geographical location, relative to the nation's population, make it a good location for a company operating a network of two warehouses. Despite this, a combination of its proximity to metropolitan centers and low regional population density make attracting certain logistic sectors challenging, especially those where proximity to the consumer base is important.

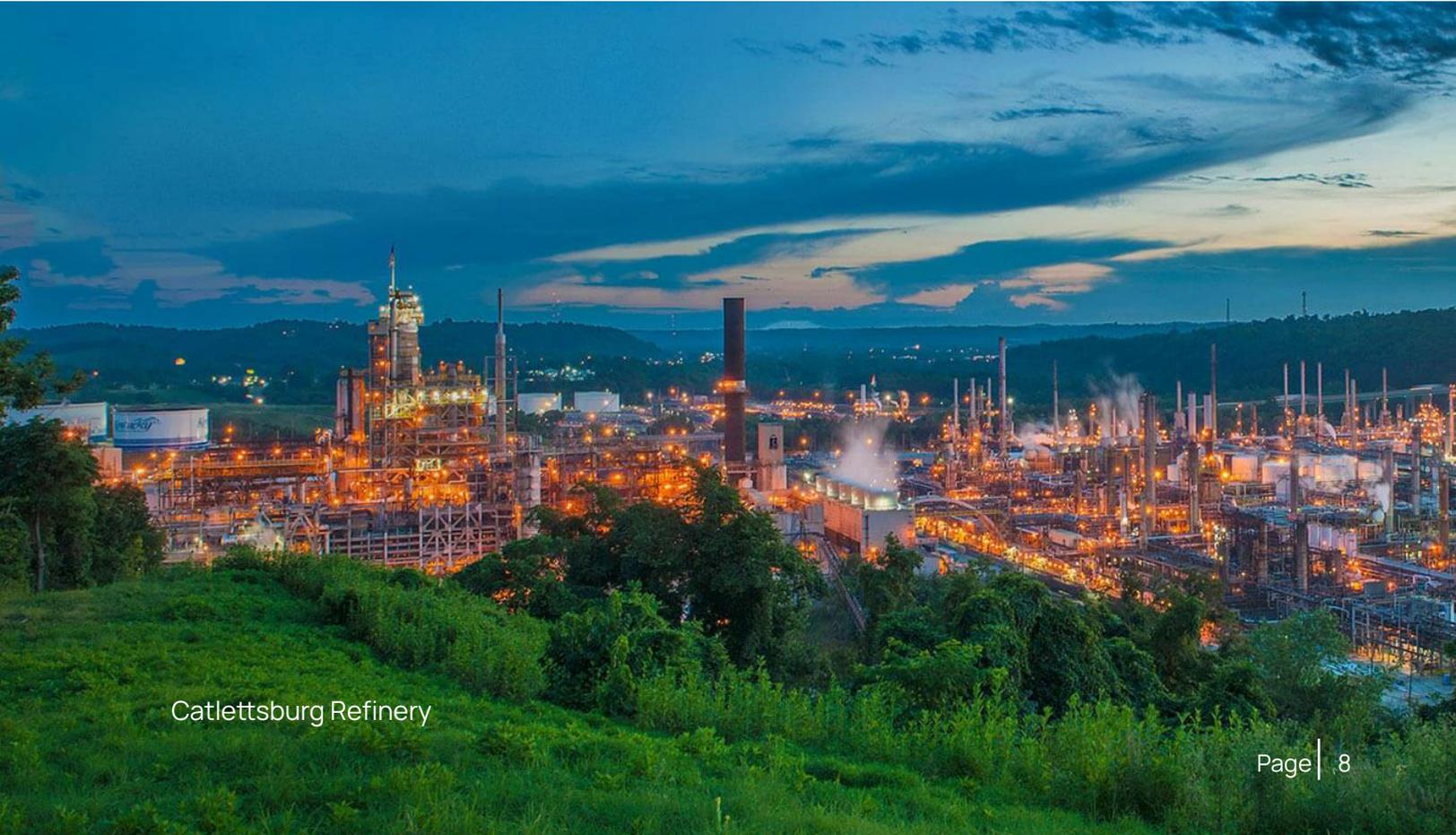
# RECOMMENDATIONS

Recommendations were developed building upon the needs, issues and opportunities identified through the Freight Profile, SWOT analysis and stakeholder feedback. To support continued investment in the counties' freight network, the Plan identified a series of recommendations that are organized into two categories:



## POLICIES, PROGRAMS AND PARTNERSHIPS

The KYOVA Integrated Metropolitan Transportation Plan (MTP) identified a series of goals and objectives to support the overall vision of the Plan. This Freight Plan supports the MTP goals by creating a series of freight-specific objectives that could be easily integrated into future MTP efforts. To ensure the Greenup/Boyd County Freight Plan's recommended policies, programs and partnerships align with the current MTP, this plan's recommendations provide one to two freight objectives and multiple freight recommendations for each MTP goal.



Catlettsburg Refinery

## PROJECT PRIORITIZATION

Identifying a list of projects is important for a freight plan, but it is equally important to understand the which projects should occur first. The Greenup/Boyd County Freight Plan used a four-step process to identify, prioritize and organize projects into three tiers based on each project's individual merits.

### 1

#### Step 1: Project Identification

A list of projects was compiled from previous freight and transportation planning efforts throughout the region including:

- Greenup/Boyd County Freight Plan – Freight Profile Results
- Boyd-Greenup Small Urban Transportation Study
- Ashland Areas 2040 Metropolitan Transportation Plan
- Congestion Management Process: Final Report
- KYTC's Strategic Highway Investment Formula for Tomorrow (SHIFT) Program
- KYOVA Transportation Improvement Plan
- KYOVA project team proposed a small number of additional projects

### 2

#### Step 2: Scoring Projects

The list of freight projects was scored (from 0 to 1) based upon six criteria. A score was calculated for each of the criteria by dividing all project calculations into quartiles and awarding 0 to 1 point based upon which quartile merited.

- Safety
- Economic Development
- Asset Management
- Congestion
- Benefit/Cost Ratio
- Local Priorities

### 3

#### Step 3: Prioritize Projects

Total score was calculated using a weighted score based on the KYTC Strategic Highway Investment Formula for Tomorrow (SHIFT) process.

### 4

#### Step 4: Implementation Tiers

Following the weighted ranking, the projects were divided into four tiers based on a combination of project ranking and ease of execution (short, medium, long term).

- **Tier I:** Projects KYOVA should focus on executing first due to high priority or because the project could be implemented quickly.
- **Tier II:** Projects to be implemented once many of the Tier I initiatives are completed.
- **Tier III:** Projects KYOVA should focus on executing long-term; several of these projects either require larger investments or will require planning studies.
- **Tier IV:** Projects that KYOVA should focus on if or when a freight industry development is proposed nearby.

### Prioritization Results

The outcome of the prioritization is a list of ranked projects for the region to implement in the short-, mid-, and long-term. It is important to acknowledge that priorities can shift depending upon funding, freight trends, new developments, and state/federal priorities. Therefore, the results of the prioritization should be used as a guide and not viewed as a strict order for implementation. Each freight project identified through this plan is summarized below.

Figure 3: Project Location Map - All Projects

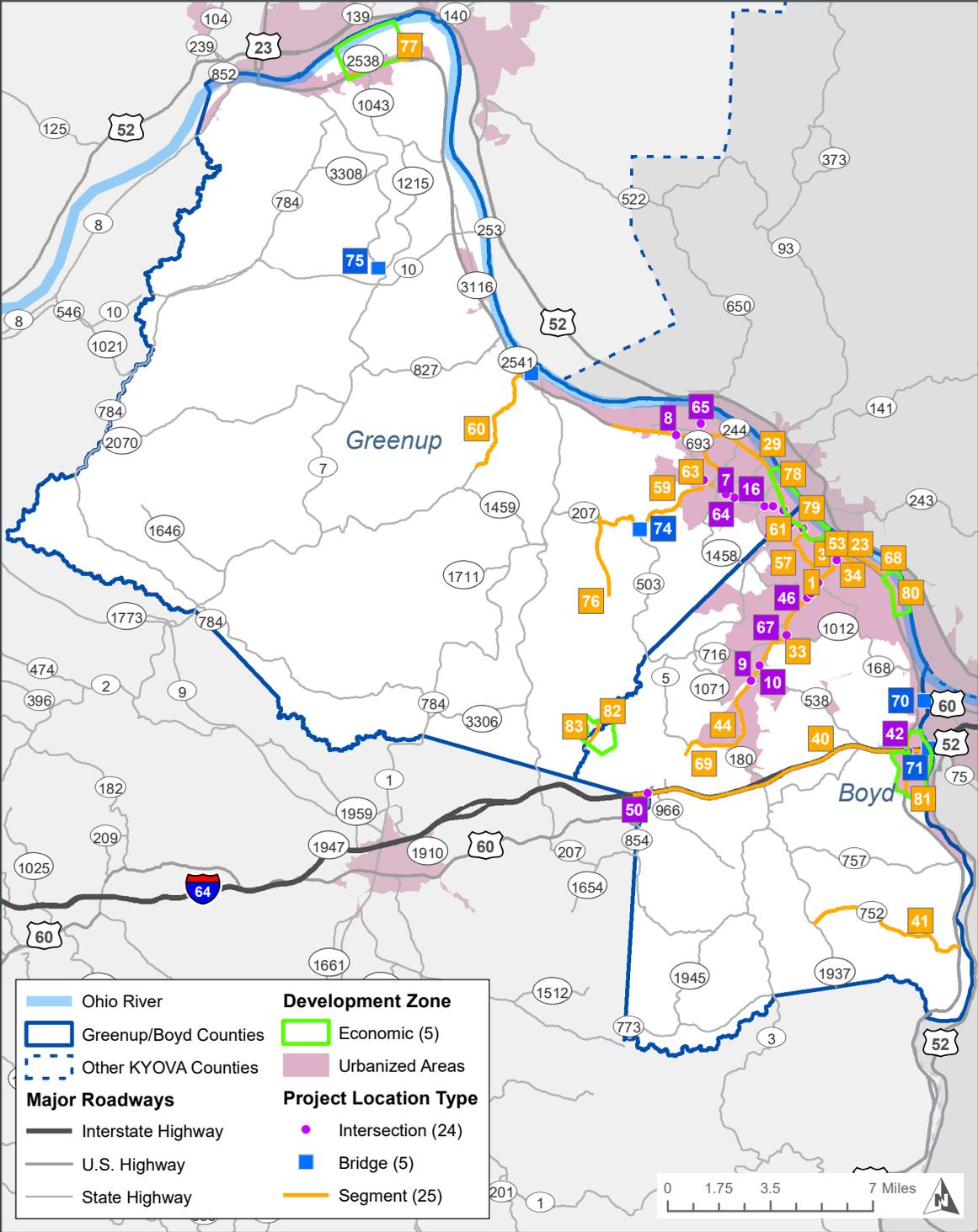


Figure 4: Project Location Map - Tier I

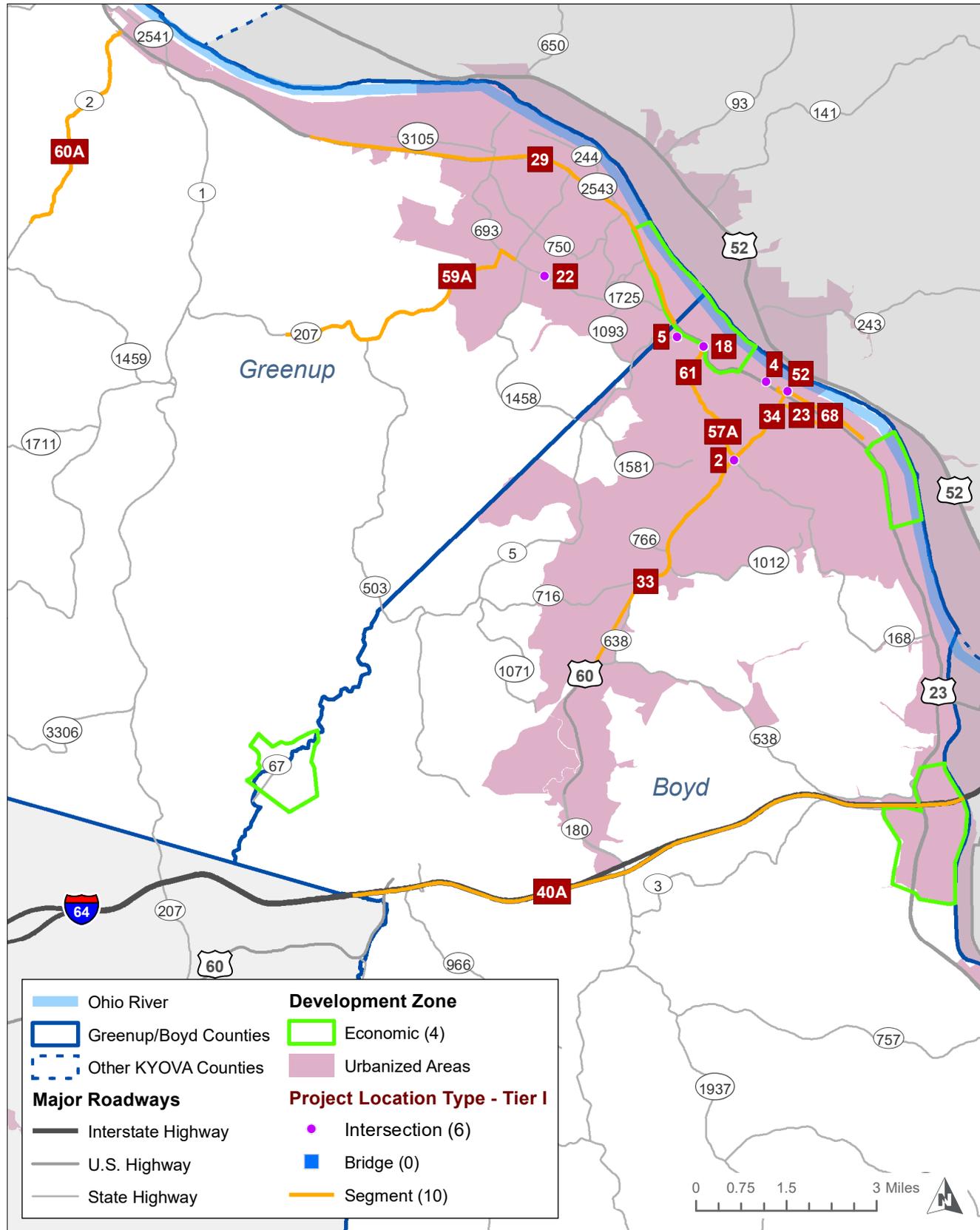
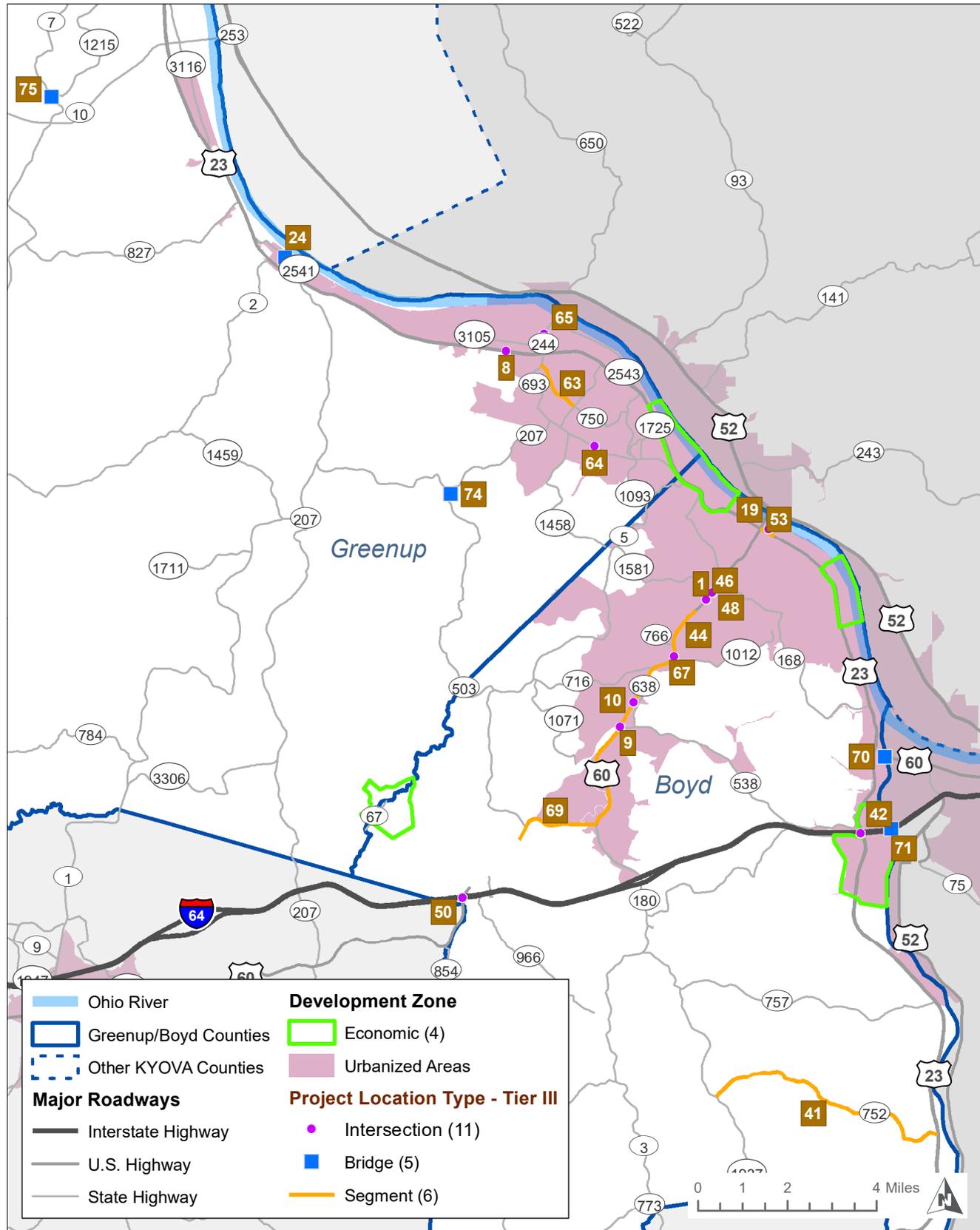




Figure 6: Project Location Map - Tier III





## ECONOMIC DEVELOPMENT SITES

### HOW FREIGHT CAN SUPPORT THE ECONOMY

Freight-intensive activities are a major part of the region's economic development strategy, and as such the multimodal freight system must be capable of supporting that vision. The following one-pager site overviews provide insight to how the freight system could support strategic freight opportunities for the region – ultimately to support economic development and create jobs.

Each of the following areas were identified based on several factors, including:

- Local plans and strategies for economic development and/or underutilized industrial zoned land;
- Locations with existing freight facilities that have excess capacity or the ability to reasonably expand capacity; and
- Areas where multiple modes of freight exist.

This analysis is intended to serve as a tool for local economic development professionals, elected officials, and developers to market the area to site selectors. The analysis reviewed existing transportation assets and logical truck trip generation at each site. While most sites had no significant issues, others had recommendations that could be needed as truck trips increase.

As new development is considered and approved, it is important for local and regional officials to consider how the multimodal freight system in the region will be impacted by each specific development as they are identified in the future. The following five locations were identified by stakeholders as potential (re)development sites.

- US 23 at I-64 (Exit 191)
- Former AK Steel Plant on US 23
- Industrial Area at Greenup/Boyd Boundary
- Greenup County Near South Shore
- Braidy/Unity Aluminum Site

## US 23 AT I-64 (EXIT 191)



### SITE INFORMATION

- Boyd County and Catlettsburg jurisdictions
- No current zoning but has many existing industrial land uses in the area
- Centrally located within the region with direct access to multimodal freight network
- Park and Ride located south of interchange

### POTENTIAL DEVELOPMENT TYPES

- Manufacturing
- Warehousing
- Light Industrial
- Heavy Industrial

### EXISTING FREIGHT FACILITIES

- US 23 (Federal and State designated truck route)
  - Divided, four lane roadway (Urban Principal Arterial and designated Truck Route)
  - Current traffic counts:
    - 12,819 vehicles per day at the southern ramps of the I-64 interchange
    - 12,314 vehicles per day of which 1,252 are trucks at Mayo Trail Road (north of study area)
    - 11,238 vehicles per day near US 23/Old US 23 of which 1,827 are trucks
  - Speed limit 55 mph
- I-64 with access at Exit 191
  - Current Traffic Counts: 24,228 vehicles per day
- Rail Access (CSX)
- Big Sandy River Access

### FREIGHT CAPACITY

- **US 23 Capacity.** Freight driven development along this section of US 23 would not likely impact roadway operations in terms of the number of trips.
  - The current roadway can accommodate almost three times the existing traffic before impacting the Level of Service (LOS). Based on generalized service volumes for multilane highways, US 23 north of I-64 could accommodate up to 32,800 vehicles per day while still maintaining LOS B. If truck traffic was doubled, the roadway could still accommodate 31,300 vehicles per day.
  - Using HCM's Heavy Vehicles Adjustment Factor as an alternative analysis, highway capacity would only decrease between 4% to 10% if truck traffic was doubled.
  - It is anticipated that new development in this area would likely tie into the existing signalized Intersection of Lake Bonita Road and US 23. Both the northbound and southbound approaches of this intersection have dedicated left and right turn lanes and wide turning radii, allowing for heavy vehicles to adequately move through the intersection.
- **Rail Capacity.** CSX has a Class 1 railroad with two parallel tracks that currently serve many adjacent industrial users. Additional capacity is available for future freight users at nearby yards.
- **Big Sandy River Capacity.** Catlettsburg Refinery currently has multiple access points along the Big Sandy River and also serves barge traffic. Most riverfront sites with direct access to the river have been developed but capacity does exist for future multimodal freight transfers.

# FORMER AK STEEL PLANT ON US 23



## EXISTING FREIGHT FACILITIES

- US 23 (Federal and State designated truck route)
  - Four lane roadway (Urban Principal Arterial and designated Truck Route)
  - Current traffic counts:
    - 15,817 vehicles per day at US 23/13th Street of which 1,389 are trucks
    - 17,942 vehicles per day just south of US 23/Railroad Ave
  - Speed limit 35 mph
- I-64 with access via US 23 at Exit 191
- Rail Access (CSX)
- Ohio River Access

## FREIGHT CAPACITY

- **US 23 Capacity.** The overall roadway operations and traffic flow would likely not be impacted due to freight driven development along this section of US 23, but site-specific intersection improvements would likely be needed to provide safe access from the site.
  - Approximately two times more traffic could be accommodated before reducing the current LOS on US 23. US 23 could accommodate over 30,000 vehicles per day while still maintaining LOS B based on generalized service volumes for multilane highways.
  - Access to this site requires trucks use two existing at-grade railroad crossings at 40th Street or 42nd Street. The location of the rail tracks parallel to US 23 could pose a safety risk for trucks waiting to turn onto US 23.
- **Rail Capacity.** CSX has a Class 1 railroad that parallels US 23 with three tracks. Future development could be served by CSX at nearby rail yards.
- **Ohio River Capacity.** The previous use had an access point to the Ohio River and the site could potentially serve barge traffic in the future.

## SITE INFORMATION

- City of Ashland
- Currently zoned "I-2: Heavy Industrial" and identified in the Ashland Comprehensive Plan as a key redevelopment site
- Buildings from previous use (coke plant) have been removed; environmental remediation is still needed
- Challenge of being located in the floodplain
- Site has direct access to multimodal freight network

## POTENTIAL DEVELOPMENT TYPES

- Manufacturing
- Warehousing
- Light Industrial
- Heavy Industrial

## RECOMMENDED IMPROVEMENTS

- A signalized intersection that is interconnected with the rail crossing signals should be considered to prevent trucks that are waiting to turn onto US 23 from being struck by a train. This type of signal could stop traffic on US 23 when a train is approaching to allow trucks to clear the crossing. Intersection improvements would need to be studied further to verify if MUTCD signal warrants could be met.

# INDUSTRIAL AREA AT GREENUP/BOYD BOUNDARY



## SITE INFORMATION

- Ashland, Boyd County, and Greenup County jurisdictions
- Ashland: Currently zoned “I-2: Heavy Industrial” and identified in the Ashland Comprehensive Plan as a redevelopment area; Greenup County: No current zoning.
- Current land uses include active heavy industrial and commercial
- Limited land between the Ohio River and US 23 exists but surrounding sites have development/redevelopment potential
- Challenge of being located in the floodplain
- Site has direct access to multimodal freight network

## POTENTIAL DEVELOPMENT TYPES

- Manufacturing
- Light Industrial
- Warehousing
- Heavy Industrial

## EXISTING FREIGHT FACILITIES

- US 23 (Federal and State designated truck route)
  - Four lane roadway (Urban Principal Arterial and designated Truck Route)
  - Current traffic counts:
    - 20,768 vehicles per day just north of US 23/Ashland Dr of which 1,494 are trucks
    - 30,965 vehicles per day at the county line on US 23
    - 21,997 vehicles per day on just south of US 23/Horn St
  - Speed limit 45 mph
- Indirect access to I-64 via US 23 at Exit 191 / US 60 at Exit 185
- Rail Access (CSX)
- Ohio River Access

## FREIGHT CAPACITY

- **US 23 Capacity.** In terms of number of trips, the overall roadway operations would likely not be impacted due to freight driven development along this section of US 23. However, to provide safe access from the site onto US 23 to prevent accidents, site specific improvements would likely be needed.
  - Based on generalized service volumes of the HCM Simplified manual, US 23 could accommodate up to 32,800 vehicles per day while still maintaining LOS B. If truck volumes increased to 47,000, the LOS would change to C.
  - Access to the site currently requires trucks to cross the railroad before turning onto US 23; one existing grade-separated crossing is currently located at Riverside Blvd/Uhlens Banch Road. Alternatively, trucks could also travel west on Wurtland Ave to US 23, but Wurtland is currently signed as “No Trucks.” Access will be needed across the railroad and through residential neighborhoods for trucks to enter US 23, and specific safety improvements will likely also be needed to reduce the potential accidents as truck enter the highway at future access points.
- **Rail Capacity.** CSX has a Class 1 railroad with three tracks that parallel this site, and multiple active spurs are also located on site. Additional capacity is available for future freight users through these spurs without having to access nearby rail yards.
- **Ohio River Capacity.** The site currently has multiple access points along the Ohio River and also serves barge traffic. Most riverfront sites with direct access to the river have been developed but capacity does exist for future multimodal freight transfers.

## RECOMMENDED IMPROVEMENTS

- If new development occurs within this area, Riverside/Uhlens Branch should be reconstructed to be wider and with pavement designed to accommodate higher volumes of heavy vehicles.
- Site specific improvements would also need to be determined on a case-by-case basis and could include signalization, right in/right out turning movements, or other safety measures.

# GREENUP COUNTY NEAR SOUTH SHORE



## EXISTING FREIGHT FACILITIES

- US 23 (Federal and State designated truck route)
  - Four lane roadway (Rural Principal Arterial and designated Truck Route)
  - Current traffic counts:
    - 10,214 vehicles per day at US 23/Tygarts Creek of which 1,359 are trucks
    - 5,919 vehicles per day near US 23/De Antoine Ln
  - Speed limit 55 mph
- Indirect access to I-64 with access via US 23 at Exit 191
- Rail Access (CSX)
- Ohio River Access

## FREIGHT CAPACITY

- **US 23 Capacity.** The overall roadway operations of US 23 would not be impacted significantly with new freight development, but site specific intersection improvements would likely be needed.
  - Traffic along this portion of US 23 can increase by almost three times before impacting the Level of Service (LOS).
  - Trucks would need to cross the existing railroad to access US 23. There is an existing at-grade crossings at the Mark West Hydrocarbon Plant (includes gates and lights), and private crossings are also currently located to the east and west of this plant. The private crossing to the west has a paved crossing surface but no other safety improvements.
- **Rail Capacity.** CSX has a Class 1 railroad with three tracks that parallel this site. Additional capacity is available for future freight users at nearby yards.
- **Ohio River Capacity.** One commercial user currently has an access point to the Ohio River and additional river access could potentially be served.

## SITE INFORMATION

- Greenup County jurisdiction
- No current zoning; majority of the area is agricultural with some existing industrial land uses in the area
- Located in the floodplain
- Site has direct access to multimodal freight network

## POTENTIAL DEVELOPMENT TYPES

- Manufacturing
- Warehousing
- Light Industrial
- Heavy Industrial

## RECOMMENDED IMPROVEMENTS

- If new development uses the private railroad crossings, the crossing surface should be paved (for the eastern location) and gates and lights should be considered depending upon the volume of traffic.

## BRAIDY/UNITY ALUMINUM SITE



### SITE INFORMATION

- Greenup County jurisdiction
- No current zoning; majority of the area is undeveloped natural area with some existing industrial land uses in the area
- Site has nearby access to I-64 to the south

### POTENTIAL DEVELOPMENT TYPES

- Manufacturing
- Warehousing
- Light Industrial
- Heavy Industrial

### EXISTING FREIGHT FACILITIES

- KY 67/Industrial Parkway (Federal and State designated truck route)
  - Four lane roadway (Rural Principal Arterial and designated Truck Route) with a 2-lane, undivided (with some sections having additional truck climbing lane)
- Current traffic counts:
  - 4,788 vehicles per day on US 23 of which 1,532 are trucks
  - Speed limit 55 mph
- Indirect access to I-64 with access via Industrial Parkway at Exit 179

### FREIGHT CAPACITY

- **Highway 67 Capacity.** The existing Level of Service (LOS) B has additional capacity to operate and accommodate new freight driven development along this section of Highway 67.
  - Based on generalized service volumes for multilane highways, KY 67/Industrial Parkway north of I-64 could accommodate up to 32,800 vehicles per day while still maintaining LOS B. If truck traffic was doubled, the roadway could still accommodate 31,300 vehicles per day.
  - Highway capacity would only decrease between 3.5%-6.2% if truck traffic increased by 10% based on HCM's Heavy Vehicles Adjustment Factor as an alternative analysis.
  - Freight trucks currently access KY 67/Industrial Parkway through two access point. The interchange between Highway 67 and I-64 does not appear to pose any issues for truck access.

### RECOMMENDED IMPROVEMENTS

- If new development occurs, Addington Rd and PR-1110 roadway approaches should be reconstructed to reduce/eliminate the sharp turns.
- A traffic signal should be considered at the PR 1110/KY 67/Industrial Parkway intersection if the projected daily and hourly traffic volumes meet MUTCD warrants. Alternatively, if a signal is not feasible, an acceleration lane for trucks heading south on KY 67/Industrial Parkway (up hill) should be installed.
- Widening of Technology Drive and other internal industrial park roadways will likely be needed. Additionally, turn lanes should be considered at major intersections.





