

XIII. CONCLUSIONS AND RECOMMENDATIONS AND NEXT STEPS

XIII.1 Program Goals and Objectives

The Portway Extensions study area is one of the leading international trade regions in the world. It is the gateway to the largest metropolitan region in the United States, and it serves producers and consumers throughout New England, the Mid-Atlantic, and even the Midwest. The movement of goods into, out of, within and through the study area – largely by means of intermodal shipping containers – is critical to the economy of the region, and to the nation as a whole.

While it would be overly dramatic to argue that the region's ability to move these goods is at substantial risk, it is entirely fair to note that the region is expected to see substantial growth in the overall demand for the movement of intermodal containers, and to argue that the region has not yet identified the types of improvements necessary to ensure that these increased container volumes can be moved quickly, efficiently, and economically.

By the year 2025, marine container traffic handled at the region's ports is expected to double, and some have even argued that a tripling is more likely. International landbridge rail traffic is forecast to more than triple. Domestic container traffic and related non-freight truck trips associated with container logistics will increase proportionally. Through traffic between the "east of Hudson" (New York City and New England) and the rest of the U.S. will continue to use North Jersey's transportation infrastructure as its funnel. And all the while, the background traffic characteristic of a vibrant metropolitan area – automobiles and non-container commercial traffic – will continue to grow dramatically.

Planners and agencies in the region have recognized these facts for some time, and several important initiatives have been undertaken in an attempt to address them. One of these is the Portway Phase I program; another is the Kapkowski Road project; another is the Port Inland Distribution Network; another is the rail improvement program being undertaken by the State of New Jersey and the Port Authority. But we are left with one of the key findings of this study – namely, that faced with projected major increases in freight and non-freight traffic over the region's roadway network, these initiatives will not be adequate to safeguard against declining transportation system performance and level of service. This, in turn, means increased congestion, declining environmental quality, increased transportation costs for freight, and reduced economic competitiveness for the region in national and international markets.

XIII.2 Improvement Recommendations

The Portway Extensions recommendations are designed to supplement ongoing initiatives in ways that specifically target and reinforce the region's ability to efficiently transport containers. The recommendations are prioritized in a way that looks first to achieving the maximum utilization of existing infrastructure, then looks to construct new non-highway improvements, then finally looks to provide key bottleneck-reduction improvements on selected highway links and interchange ramps.

The recommendations were developed based on a substantial outreach process involving the public, government agencies, and industry stakeholders, and were tested and evaluated using a purpose-built regional highway network modeling tool. The recommendations can be classified into three broad tiers:

XIII.2.A Tier I: Systems / Operational Improvements

❖ ITS System Architecture

- Pre-Trip Travel Information
- En-Route Driver Information
- Route Guidance
- Traffic Control
- Incident Management
- Travel Demand Management
- Archived Data Management
- Commercial Fleet Management
- Commercial Vehicle Administrative Processes
- Commercial Vehicle Electronic Clearance
- Electronic Payment Services
- Hazardous Material Incident Response
- On-Board Safety Monitoring
- Automated Roadside Safety Inspection
- Emergency Notification and Personal Security
- Emergency Vehicle Management
- Maintenance and Construction Operations

❖ Off-Peak Freight Operations

- Truck Rest Areas
- Work Zone Management
- Extended Hour Operations for Container Terminals

- Removal of Regulatory Impediments to Off-Peak Operations
- Facilitating “Critical Mass” of Off-Peak Business Operations

❖ **Container Management Strategies**

- Information Systems for Exchanging Empties and Equipment
- Scheduling Systems
- Empty Container Handling
- Overweight Container Handling
- Chassis Pools and Terminals
- Container “Freight Villages”
- “Inland Port” Operations

XIII.2.B Tier II: Non-Roadway Infrastructure

❖ **Elimination of height, weight, other capacity constraints**

- Modification/elimination of existing overhead catenary along existing rail segments
- Upgrade of rail to the current 315 ton standard
- Elimination of rail tunnel height restrictions
- Accommodate double-stack trains

❖ **Short Line/Short Haul Corridors**

- Utilization of nine key existing rail segments
- Additional feeder lines
- Creation of local marshalling yards within or proximate to dense warehouse/distribution centers
- Establish scheduled service with fixed consist trains
- Explore options for shorthaul barge / freight ferry service

❖ **Intermodal Yard Connectivity**

- Drayage roads to major Intermodal yards
- Class 1 to Shortline Transfer Capability
- Empty Container Handling

❖ PIDN Rail / Barge

- Institutional coordination support for PIDN programs
- Integration of additional shorthaul rail, barge and freight ferry components

XIII.2.C Tier III: Selected Roadway Enhancements**❖ Truck Priority / Truck Only Facilities**

- NJ Turnpike Interchange 15-W to Kearny and Croxton yards
- Truck Only ramp from Port Street to NJ Turnpike Interchange 14 toll plaza
- Exclusive truck roadways from NJ Turnpike Interchange 14-A to Port Jersey and MOTBY peninsulas

❖ NJTPK Interchange Enhancements

- Localized improvements to NJ Turnpike Interchanges 14, 13-A, 13, 12 and 10

❖ Last-Mile and Major Facility Connectors

- Roosevelt Avenue improvements – Middlesex County
- Industrial Avenue improvements – Middlesex County
- New Road extension to Little Ferry Yard

❖ Bridges (new or improved)

- Hackensack River Bridge from Central Avenue to Route 440
- Improvement to NJ Turnpike Newark Bay Bridge
- Increased under-clearance of the Bayonne Bridge
- Reinstalled Paterson Plank Road bridge over Hackensack River

Recommendations in each of these Tiers were evaluated based on: their ability to provide enhanced container freight mobility and “positive system redundancy;” their goodness-of-fit to established and emerging freight logistics requirements; their potential impact on the environment; their potential enhancement of container safety and security; and their reliance on new versus emerging or future technologies.

The assessment determined that the Tier I improvements provide a substantial benefit, but by themselves are not sufficient to offset anticipated degradation of system

performance. The addition of the Tier II improvements provides benefit in the regions most congested and fastest-growing freight corridor, but does not eliminate the need to implement roadway infrastructure improvements. Finally, the addition of the Tier III improvements provides substantial additional benefit at key highway system bottlenecks throughout the region.

The Portway Extensions projects represent a substantial enhancement of the region's ability to sustain and grow its container freight movement capacity. However, container freight movement is only one of the critical transportation challenges the region faces, and the Portway Extensions projects – though considered highly effective at addressing the problems to which they are aimed – do not “fix the transportation system problem.” They will need to be combined and integrated with other regional transportation initiatives addressing automobile and non-container truck traffic, as well as with local and regional land use and development planning. The positive coordination of these efforts – across jurisdictional boundaries, across public agency responsibilities, and across the respective interests of the private and public sectors -- will be a key challenge as the Portway Extensions initiatives are further advanced into the feasibility assessment phase.

XIII.3 Next Steps – Advancement of Improvement Concepts

As detailed throughout this report, the Portway Extensions Concept Development Study focused upon identification of systems, operational and infrastructure improvement concepts for the primary purpose of accommodating the movement of international and domestic containers to, from and through the region. The recommendations of this study reflect concepts that have been screened and evaluated at a level sufficient to determine that no readily apparent fatal flaws exist. This does not imply that the recommendations resulting from this study are ready for immediate implementation. Significant additional analysis, coordination, planning, feasibility assessment and design efforts will be required to advance these recommendations through the appropriate funding and implementation pipelines. Immediate next steps in the Portway Extensions program are envisioned to include:

XIII.3.A Economic Impact Analysis

Throughout the Stakeholder Outreach process conducted as part of this study, a recurring question was posed: *How much are the improvements going to cost, and what regional economic benefit can the region expect from implementation of the*

improvements? While not an element of this Concept Development study, the question is certainly an important one, with a number of implications associated with the answer. Key among the implications is the securing of funding for the advancement of the improvement concepts through to the construction and operational phases. The most well conceived concept is meaningless unless it can be funded and implemented.

If the economic benefit of implementing the improvement concepts is greater than the associated cost, securing of funding will be supported. Funding requests presented by legislators as part of the reauthorization of TEA-21, are in the neighborhood of \$775 million, and define a wide array of initiatives related to the goods movement industry and the growth of the Port Newark/Elizabeth area, from planning to construction. The packaged funding request is being presented as a “Program of National Economic Significance”. Support for this funding request would be greatly enhanced through the preparation of an economic impact analysis focusing upon the Portway Extensions.

It is therefore recommended that a comprehensive Economic Impact Analysis be undertaken to define and quantify the positive benefits that may be attributed to the Portway program.

XIII.3.B Feasibility Assessment

As referenced repeatedly throughout this report, a number of issues have been identified through the analysis as well as through the stakeholder outreach process. These issues will require significant investigation as part of the Portway Extensions Next Steps. These issues range from questions pertaining to the timing of container growth over the next 20+ years, to site-specific warehouse and distribution center development, to necessary coordination between competing interests for limited rights-of-way. As part of the established project advancement process, subsequent to completion of a Concept Development analysis, recommendations stemming from the analysis are more fully defined and evaluated under a Feasibility Assessment study. It is anticipated that the recommendations of this study will be more fully vetted through the Feasibility Assessment process.