



G-MAP

Freight Portfolio

*A Comprehensive Goods Movement Action Program
for the New York-New Jersey Metropolitan Region*



THE PORT AUTHORITY OF NY & NJ

The Goods Movement Action Program (G-MAP) recognizes that a safe and efficient multimodal goods movement system is essential to support commerce and communities in the New York-New Jersey metropolitan region. G-MAP is a joint initiative of the Port Authority of New York and New Jersey (the Port Authority), the New Jersey Department of Transportation (NJDOT), and the New York State Department of Transportation (NYSDOT) that began as an assessment of the challenges and opportunities of the region's freight transportation system. This effort demonstrated the need for a shared vision of a modern goods movement system that is compatible with other state and local community development planning and transportation needs. G-MAP provides that shared vision.

G-MAP was designed to reflect the region's historical success in inventing and reinventing innovations in transportation and infrastructure. The New York-New Jersey metropolitan region, now the nation's largest metropolitan marketplace and premier global gateway, began its successful evolution as a small fur-trading settlement in New York Harbor founded in 1624. This evolution did not occur by happenstance. Rather, visionary entrepreneurs and elected officials achieved this success by leveraging the region's excellent geographic location, technical innovation, and leadership.

The 1819 opening of the Erie Canal in central New York catalyzed the region's evolution, connecting it to the agricultural markets and commodities of the North American interior. New Jersey then capitalized on the opportunities provided by the Canal, pioneering the development of canals and railroads that connected the Harbor and the Hudson River with inland markets. By the mid-1850s, these innovations helped the region thrive as it became home to the nation's busiest port, handling maritime volume greater than Boston, Baltimore, and New Orleans combined.

The region's successes accelerated in the early 20th century as private railroad companies invested in the construction of rail tunnels beneath the Hudson River, providing a critical link between Manhattan and New Jersey, thereby expanding the capacity of interstate travel. Following suit,

both states led in providing vehicular crossings, starting with the Holland Tunnel in 1927, the George Washington Bridge in 1931, and the Lincoln Tunnel in 1937.

Innovation and leadership did not stop there. In 1927, National Air Transport, later to become part of United Airlines, delivered the first air cargo shipment in the United States between Dallas and New York. Then, in 1956, the region led a revolution in modern shipping when Ideal X, the first container ship in the United States, carried 58 metal containers between Newark, New Jersey, and Houston, Texas.

Today, the region continues to lead in transportation, infrastructure, and goods movement innovations and inventions. The region's higher education institutions, such as the Center for Supply Chain Management at Rutgers Business School, develop innovative goods movement practices and train future supply chain professionals for the changing global marketplace. The region is also an incubator for technological innovations, including the use of data and GPS that is improving transportation routing; 3-D printing that is redefining manufacturing; and high-tech warehouses that are meeting the demands of today's thriving e-commerce economy.

However, aging infrastructure, chronic congestion, and fragmented transportation management burden the region's transportation and infrastructure successes. These challenges impede the safe and efficient movement of goods in the region. G-MAP provides a comprehensive and system-wide framework in which to analyze disparate freight investments and policy decisions; it creates a regional platform from which public and private partners can cooperatively address these issues. G-MAP moves beyond mode specific planning to an integrated multimodal approach that bridges political boundaries and bolsters the ability to attract financing, creating a new public and private cooperative model for a 21st-century goods movement network.

Work on G-MAP began as the Partner Agencies identified the region's most critical freight assets and corridors extending beyond its core cities to other parts of both states and the Northeast. The Partner Agencies then

incorporated an assessment of the region's strengths and weaknesses by exploring the competitive forces that place a premium on efficient and economical goods movement, as well as identifying the growing pressures on siting and moving cargo on an increasingly congested road and rail network.

The pages that follow confront these complexities by translating the Partner Agencies' shared regional vision into an extensive working agenda that integrates a systems-level transformation of goods movement into the states' ongoing stewardship of the multimodal transportation network. However, the significance of G-MAP is less in its initial details than in the Partner Agencies' shared vision and commitment to create a safer and more efficient goods movement system that serves the region's needs and continues its historic role as a goods movement gateway that serves the nation and the world. Indeed, the innovation that G-MAP offers is the regional framework to accomplish together what no one agency can accomplish alone.

G-MAP is the right innovation for our time: collaborative, dynamic, creative, and targeted. The Program elevates the awareness and understanding of the essential functions of regional goods movement and provides a strategic framework for cooperation and collaboration among public agencies, local governments, the private sector, and the federal government. The bistate region has collaborated to renew its rail transit system, to implement "smart highway" and multi-agency electronic toll payment, and to nurture the growth of cycling and recreational networks. Managing and enhancing the goods movement system across the New York-New Jersey metropolitan region also is achievable and certainly no less critical to the region's future economic prospects and livability.



Pat Foye, Executive Director

THE PORT AUTHORITY OF NY & NJ



Jamie Fox, Commissioner



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TABLE OF CONTENTS

JOINT STATEMENT i

TABLE OF CONTENTS ii

G-MAP FREIGHT PORTFOLIO 1

 Goods Movement in the Region: A Challenged Global Gateway and Metropolitan Market 1

 The Vision: A Modern Metropolitan Freight System to Serve Regional and National Needs 1

 Guiding Principles for Long-Term Action 2

Vision 2

Goals 2

Strategies 2

 Near-Term Priority Setting 3

 The Regional Core Freight Network 3

 Action Packages: Creating a Regional Freight Portfolio 5

Priority Strategies 6

 The Action Packages 7

 The Early Actions 7

 Oversight: A New Approach to Joint Regional Implementation 10

The Executive Committee 10

The Core Implementation Staff 10

 Monitoring Performance 11

The Performance Framework 11

 Conclusion: Looking Ahead 11

ACTION PACKAGE PROFILES 12

 Regulatory Harmonization: Seamless Service Provision 12

 Capital Resources for the Financial Capital 13

 Deploying Freight Technology for Smarter Operations 14

 Off-Peak: Capturing Available Capacity 15

 Freight Preservation: Preserving Access & Facilities for Essential Freight Services 16

 I-95 Corridor: Serving the Northeast MegaRegion 18

 Multimodal Rail: Realizing the Rail Renaissance 20

 Inside I-287: The First & Last Miles 22

 Airport Access: Delivering Priority Transportation 24

 Gates: Promoting the Region’s Global Gateway 26

G-MAP: ACTION PACKAGE INFRASTRUCTURE PROJECTS 28

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Goods Movement in the Region: A Challenged Global Gateway and Metropolitan Market

Commerce and communities in the New York-New Jersey metropolitan region depend on the daily delivery of millions of tons of goods. From basic necessities such as food and fuel, to the full spectrum of specialized goods, every product consumed is shipped through the region's highway networks, airports, railways, and ports. These goods generate vital economic benefits as they move within and through the nation's largest metropolitan region and its premier East Coast import/export hub. However, they also place substantial pressure on its complex and congested transportation and infrastructure network.

Moving these goods quickly, reliably, and economically involves sophisticated logistics processes. This requires shippers to navigate a supply chain that contains many dimensions, including demanding delivery windows, rapidly changing technologies, stringent safety and security regulations, and unpredictable travel conditions. Additionally, while shippers strive to move goods within and through the vast regional market seamlessly, they depend on transportation and infrastructure facilities that are regulated by multiple agencies while being independently managed. This independence creates complex challenges as rules, regulations, and policies vary between jurisdictions. Ultimately, all these dimensions must align in a complex choreography to move goods safely and efficiently.

Although prodigious amounts of cargo manage to move throughout the region every day, the regional transportation network does not provide the level of reliability, connectivity, or capacity needed to sustain the competitive position of its gateway facilities or meet the expectations of businesses and consumers. Additionally, communities and commuters are less tolerant of the impacts of freight transportation on traffic conditions, neighborhoods, and the environment, further complicating the intricate goods movement system.

Challenges to improving these issues abound. More than 8 million daily commuters consume most of the metro area's road and railway capacity. Much of the region's transportation infrastructure predates current design standards for modern freight rail and road equipment. Dense development patterns increasingly

translate into cost and community pressures that push essential distribution and intermodal transfer facilities farther away from customers and direct connections with transportation corridors. Ultimately, consumers and businesses pay the price for these inefficiencies as they undercut the region's economic competitiveness and degrade quality of life.

Historically, goods movement initiatives that rectify these challenges have relied on investments from local public and private resources, often with little federal funding. In fact, it was only in 2011 that Congress took the first steps toward developing a cohesive national freight strategy as it renewed the primary federal surface transportation statute. To fill this gap in funding and attention, public and private sectors across the nation have taken the lead. For instance, other key freight gateways and marketplaces are addressing goods movement challenges through strategic long-term freight plans, including Chicago, Los Angeles-Long Beach, and other urban gateways. Their government and business leaders are modernizing goods movement networks to compete for freight-dependent jobs and income. These initiatives are proving effective in attracting discretionary federal funding and new private investment. This is a competitive environment, with much at stake for the New York-New Jersey metropolitan region—it is time to act.

The Vision: A Modern Metropolitan Freight System to Serve Regional and National Needs

Recognizing the shared challenge of improving the region's goods movement system the Partner Agencies, who are comprised of the Port Authority of New York and New Jersey (the Port Authority), the New Jersey Department of Transportation (NJDOT), and the New York State Department of Transportation (NYSDOT)—which collectively have the greatest accountability for managing freight in the region—joined forces to develop a cohesive regional goods movement action program.

The effort launched with a current conditions assessment that identified the challenges confronting the region's competitive position and ability to safely

and efficiently transport goods. The Partner Agencies then reviewed 26 recent freight analyses that addressed subregional and modal issues, and studied best practices elsewhere. They also drew on freight plans prepared by the North Jersey Transportation Planning Authority (NJTPA) and the New York Metropolitan Transportation Council (NYMTC), and coordinated with the ongoing Port Authority Cross-Harbor Freight Movement Tier I environmental impact review and other current planning efforts, both funded and unfunded. From these efforts, the Partner Agencies identified more than 350 Component Actions (Actions) for consideration that could help improve the region's goods movement system.

From this body of work, a regional freight vision was developed, in addition to goals and strategies, to provide a framework for action. A Regional Core Freight Network—a targeted system of highway, rail, maritime, intermodal, warehousing, and distribution facilities—was also identified to focus the Program's efforts. Using these tools, the Partner Agencies systematically selected approximately 200 Actions for implementation. The Actions—which include regulatory, policy, and infrastructure initiatives—were then strategically placed into 10 comprehensive Action Packages to create a cohesive strategy for implementation. Throughout this process, a diverse mix of public and private stakeholders was involved in developing the Program as they provided valuable insight and feedback.

This work culminated in G-MAP, a comprehensive Goods Movement Action Program for the New York-New Jersey Metropolitan Region. The Program provides a bi-state response that builds on the region's national importance as a global gateway to attract the investments and innovations needed to transform today's often discordant freight flows into a modern system that delivers goods safely and efficiently, balanced with other mobility needs and the region's goals for sustainable development. The cornerstones of G-MAP include:

- » Identification of a multimodal Regional Core Freight Network to target goods movement improvement initiatives along key gateways and corridors

- » Commitment to an interagency partnership that will implement G-MAP within the framework of the Partner Agencies' respective processes for investment and management of their transportation systems, and make a regional case for federal support and private investment to improve freight facilities and operations
- » Partnership to advance an initial agenda of 10 comprehensive corridor-focused and system-building Action Packages that, taken together, will create a safe and efficient goods movement system within and through the region
- » Implementation of 12 Early Action initiatives to begin delivering visible benefits to commerce and communities within the first 12 to 24 months of implementation.

G-MAP is a roadmap to guide the New York-New Jersey metropolitan region in taking action to improve goods movement. G-MAP defines what to do, how to deliver it, and who is responsible. The Program is a live effort that will be updated and adapted regularly as Actions are completed, regional priorities change, and new needs and ideas are brought to the table. The timing for implementation is important. It is appropriate to take a sustained strategic approach to achieve long-term results, but it is also valuable to change business as usual with prompt initiatives. G-MAP achieves both.

G-MAP:

- » Develops a shared strategy amongst the Port Authority, NYSDOT, and NJDOT
- » Promotes system-level solutions and long-term commitments
- » Provides a framework to assign and share responsibilities on funding regional freight projects
- » Identifies regional champions and public and private supporters
- » Creates project selection criteria to guide local, regional, state, and federal agencies
- » Brings transparent monitoring and oversight to regional performance
- » Defines an agenda for collective regional action.



Guiding Principles for Long-Term Action

Vision

G-MAP's vision and goals reflect freight aspirations for the region while maintaining consistency with the missions of the three Partner Agencies.

G-MAP's Vision:

To support and enhance the New York-New Jersey metropolitan region's position as a global center—a hub of commerce, culture, finance, and trade—through strategic goods movement initiatives.

Guided by the leadership of NJDOT, NYSDOT, and the Port Authority, and in cooperation with their government and industry partners, the region will develop a sustainable, integrated, and efficient multimodal goods movement system through 2035. This system is needed to maintain the region's global competitiveness and economic strength, while providing access to affordable goods for the region's people.

Goals

Six topical goals were developed to guide G-MAP's efforts to relieve adverse pressures on the region's goods movement system and ensure retention of the region's competitive position as a global gateway. The goals were designed to provide direction to the development of actionable strategies that will assist in achieving G-MAP's vision. The goals include:

1. Supply-Chain Operations

Ensure that global and local goods movement promotes and sustains regional economic competitiveness through shipping, staging, and delivery systems that are reliable, productive, timely, safe, and secure.

2. Governance

Establish a concerted and cooperative freight governance model to promote effective investment and operational performance practices through public policy, programs, and systems management.

3. Infrastructure

Accommodate regional freight demand by creating and managing transportation network capacity and connectivity.

4. Funding and Finance

Generate sustainable and reliable public and private investments to build and maintain the region's goods movement system.

5. Land Use

Concentrate freight-intensive land uses to efficiently use existing networks, support scale economies, and meet demand.

6. Environment

Align efficient goods movement operations with the environmental and social needs of the region's communities.

Strategies

The Partner Agencies further defined 18 strategies that support G-MAP's vision and goals. The strategies are derived from scans of innovative practices, freight plans and studies, existing capital programs from regional partners, and stakeholder input. The strategies are designed to be dynamic and flexible so that they may be implemented under changing conditions and evolving time periods. The strategies provide a framework to assist the Partner Agencies in defining, organizing, screening, prioritizing, and adding Actions to the Program. The 18 strategies are:

1. Define, develop, and manage a core regional multimodal freight network

This strategy develops and connects the regional freight system through identifying a Regional Core Freight Network. The network includes rail corridors and sea lanes entering the ports, primary gateway and intermodal terminals, and regional roadways. The core network highlights the essential components of the regional freight system to provide a blueprint for meeting the region's needs.

2. Harmonize freight network regulations across jurisdictions and amongst agencies

This strategy brings regulatory uniformity to the region to improve the mobility and interoperability of the Regional Core Freight

Network while decreasing the costs and hurdles associated with operating in the region.

3. Provide network resiliency, redundancy, and safety and security of goods through the supply chain

This strategy explores alternative routing and contingency plans to effectively respond to adverse conditions. It also introduces preventative measures such as increased security to better protect the supply chain.

4. Shift demand away from congested facilities to off-peak periods

This strategy captures gains in network capacity without major capital expenditures by shifting demand to off-peak periods when facilities are underutilized.

5. Employ a systems approach to freight network management through the use of Intelligent Transportation System (ITS) technology

This strategy encourages developing a "smart" freight network by installing regionally coordinated ITS architecture. This will enable instantaneous communication between transportation and infrastructure networks and their users.

6. Implement efficient lane and parking management strategies

This strategy influences the use of, and demand for, lanes and parking to better manage the capacity of the region's transportation system.

7. Create regional consensus on performance improvement and performance measures

This strategy establishes a framework to determine where and how investments are made. It closes the gap between public performance measures and private industry needs. This strategy adopts consistent, region-wide performance and evaluation criteria to prioritize infrastructure investments and to monitor the ongoing performance and improvement of goods movement across the Regional Core Freight Network.

8. Organize and empower coordinated regional freight leadership

This strategy encourages developing centralized regional freight leadership to deliver freight

projects and manage network operations autonomously, focusing on freight needs within the states' existing transportation programs.

9. Coordinate and strengthen applications for federal funding

This strategy enhances regional access to federal funding by promoting the region's significance as a generator of national trade and economic prosperity.

10. Expand access to capital for freight infrastructure projects

This strategy ensures that adequate financial resources are available to maintain the region's vast transportation infrastructure, infrastructure on which the region's economy depends. It focuses on innovative financing techniques, particularly through partnerships with the private sector, to enlarge pools of money available to fund freight infrastructure projects.

11. Pursue new and alternative revenue sources to supplement freight investment

This strategy captures untapped revenue by charging for freight services currently provided for free to reinvest the proceeds in network improvements that directly benefit these same users. The focal point of this strategy is directed toward revenue generation through direct charges to system users.

12. Preserve and improve existing freight properties and their multimodal connections

This strategy encourages preserving industrial land that can accommodate freight and multimodal activities that are essential to enabling trade growth, effectively protecting the region's competitive position, and sustaining diversified employment opportunities.

13. Foster new business models for distribution and consolidation

This strategy promotes efficient operating models for goods distribution and consolidation, ultimately influencing improvements to network capacity by reducing the number of trucks on the road and vehicle miles traveled.

14. Implement land use and other policies that enhance and support management of a Regional Core Freight Network

This strategy utilizes economic development and zoning tools, along with pricing incentives and disincentives, to discourage sprawl and push logistics activity into more efficiently concentrated patterns that maintain alignment with the Regional Core Freight Network.

15. Develop and promote public freight systems management capacity

This strategy supplies the skills and knowledge required to develop, operate, and maintain a world-class freight network.

16. Build support for improving goods movement amongst local commerce and communities

This strategy encourages nurturing support and advocacy amongst various constituents to secure resources and political commitment for regional goods movement improvements.

17. Incentivize less carbon-intensive freight operations

This strategy targets win-win efforts that reduce the environmental impacts of freight vehicles and equipment to improve the region's quality of life and reduce industry's net operating costs.

18. Incentivize and promote sustainable, freight-appropriate land use and development patterns

This strategy incentivizes sustainable freight operations by employing regulations, guidelines, standards, and financial mechanisms to encourage sustainable, freight-appropriate land use and development patterns.

Near-Term Priority Setting

G-MAP is an ambitious program tackling many issues and making improvements to all modes of transportation. Activities are distributed region-wide, targeting Long Island, the Lower Hudson Valley, Central and Northern New Jersey, and the five boroughs of New York City.

Given the limitations of regional funding and resources and the lead time required for many capital improvements, the Partner Agencies cannot pursue all of the potential Actions or address all of the region's freight needs immediately. Thus, while comprehensive in nature, G-MAP reflects choices in setting near-term priorities. In many cases, implementation of near-term Actions will lay the groundwork for the implementation of later Actions. G-MAP focuses efforts so that resources and energy are deployed in a tactical, holistic manner.

The Partner Agencies prioritized seven strategies from the set of 18 to guide the selection of Actions for implementation. As part of a dynamic screening process that led to the formation of 10 Action Packages, Actions were evaluated based on how strongly they aligned with the priority strategies. Those with the strongest alignment were selected for implementation and strategically placed in comprehensive Action Packages. Over time, as the region's priorities evolve, the set of priority strategies will change, and Actions currently tabled will be implemented.

The prioritized strategies lay out a sequence by which the region can establish a strong foundation to improve the regional goods movement system through the next 30 years.

G-MAP Priority Strategies:

1. Define, develop, and manage a core regional multimodal freight network
4. Shift demand away from congested facilities to off-peak periods
5. Employ a systems approach to freight network management through the use of ITS technology
7. Create regional consensus on performance improvement and performance measures
8. Organize and empower coordinated regional freight leadership
10. Expand access to capital for freight infrastructure projects
11. Pursue new and alternative revenue sources to supplement freight investment

The Regional Core Freight Network

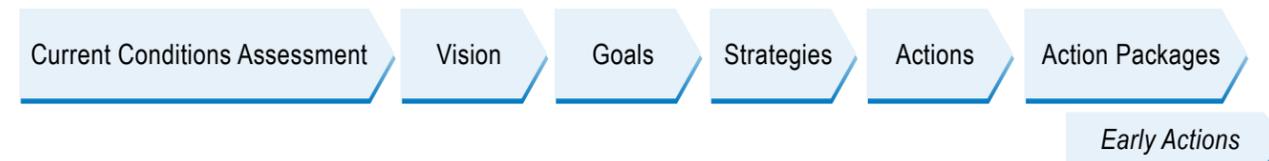
A critical component of G-MAP is the Regional Core Freight Network (Core Network). The Core Network is an integrated, managed, region-wide, and multimodal system of major freight gateways and corridors. It is a targeted system that identifies the key ports, terminals, and origins and destinations of major freight movements along highway, rail, air, and maritime links and nodes that provide primary service to regional goods movement, and thereby the regional economy. Apart from major intermodal connectors, street-level final mile connections are considered local issues and are not addressed.

Ultimately, the Core Network penetrates the region and binds it together, enabling secure and productive performance through accessibility, connectivity, and redundancy. It also makes the most of the region's resources by concentrating investment, technology, and management in a priority system— thereby targeting the focus of the Action Packages.

The Core Network is designed to support all aspects of supply chain operations, including the staging, intermodal transfer, and shipment of goods. Aligned with the 2012 MAP-21 federal transportation bill requirement to establish a "National Freight Network," the Core Network proactively positions the region for transportation funds and provides analysts, managers, and policymakers with a clear picture of the areas of critical importance for enhancing regional goods movement.

Facility accessibility and redundancy drove development of the Core Network. A general objective was to define a network that would reach to within no more than 15 to 30 minutes of all major points of regional freight generation or consumption. Additionally, the Partner Agencies sought to define the Core Network in a web that provides parallel roadways and multiple routing options to offer alternative routes with a limited detour

G-MAP Planning Process



(approximately 15 minutes off-peak, 30 minutes peak) at locations where recurring and non-recurring congestion frequently occurs.

The interstate system forms the spine of the Core Network's highway system. The highway network includes major routes from the National Highway System—including interstate, U.S. and state routes, and intermodal connectors—as well as local roads where linkages do not otherwise exist. The Federal Highway Administration's designated truck routes and portions of New York City's Department of Transportation (NYCDOT) through-truck routes are also included.

The Core Network's rail facilities include all known rail links that carry solely freight. Mixed-use links that carry freight and passenger traffic are also included. Passenger-only rail lines are excluded from the Core Network. Key freight lines identified include several north/south routes moving between the New York metropolitan region, points north to New England/Montreal, and points south to Philadelphia.

Air freight nodes incorporated in the Core Network include John F. Kennedy International (JFK), Newark Liberty International (EWR), LaGuardia (LGA), Westchester County (White Plains), Trenton-Mercer, Lehigh Valley International, Philadelphia International, Republic (Suffolk County), Long Island-MacArthur (Islip), Tweed-New Haven Regional, and Stewart International. Additionally, all known intermodal centers are included in the Core Network, with the exception of facilities that only process truck-to-truck movements.

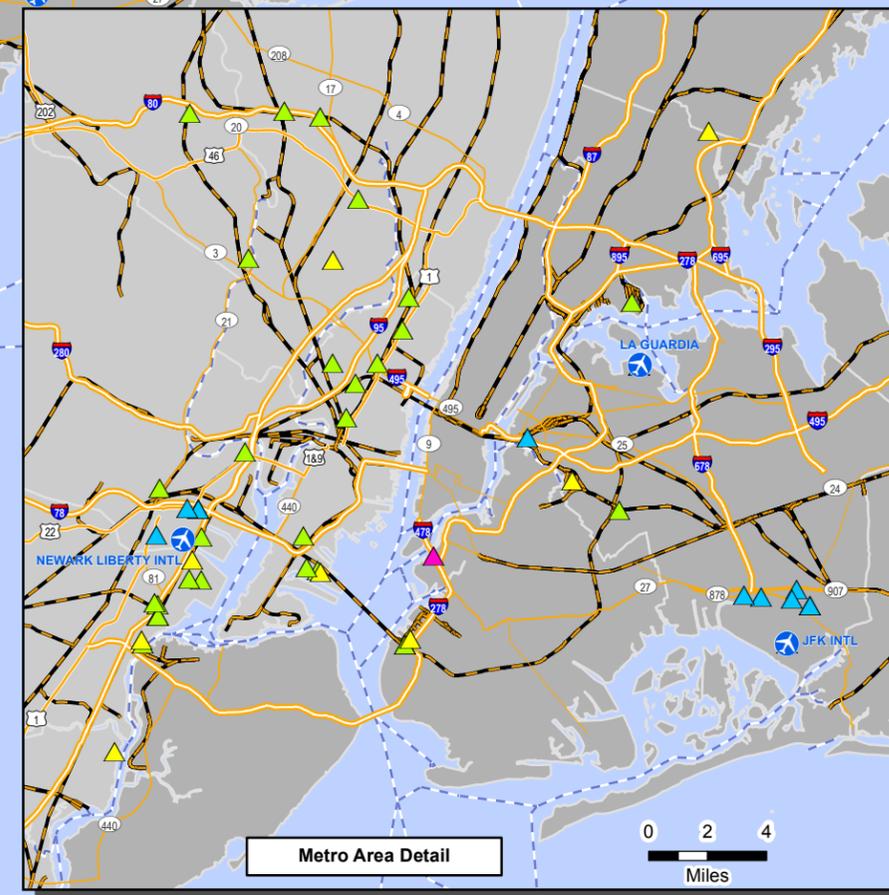
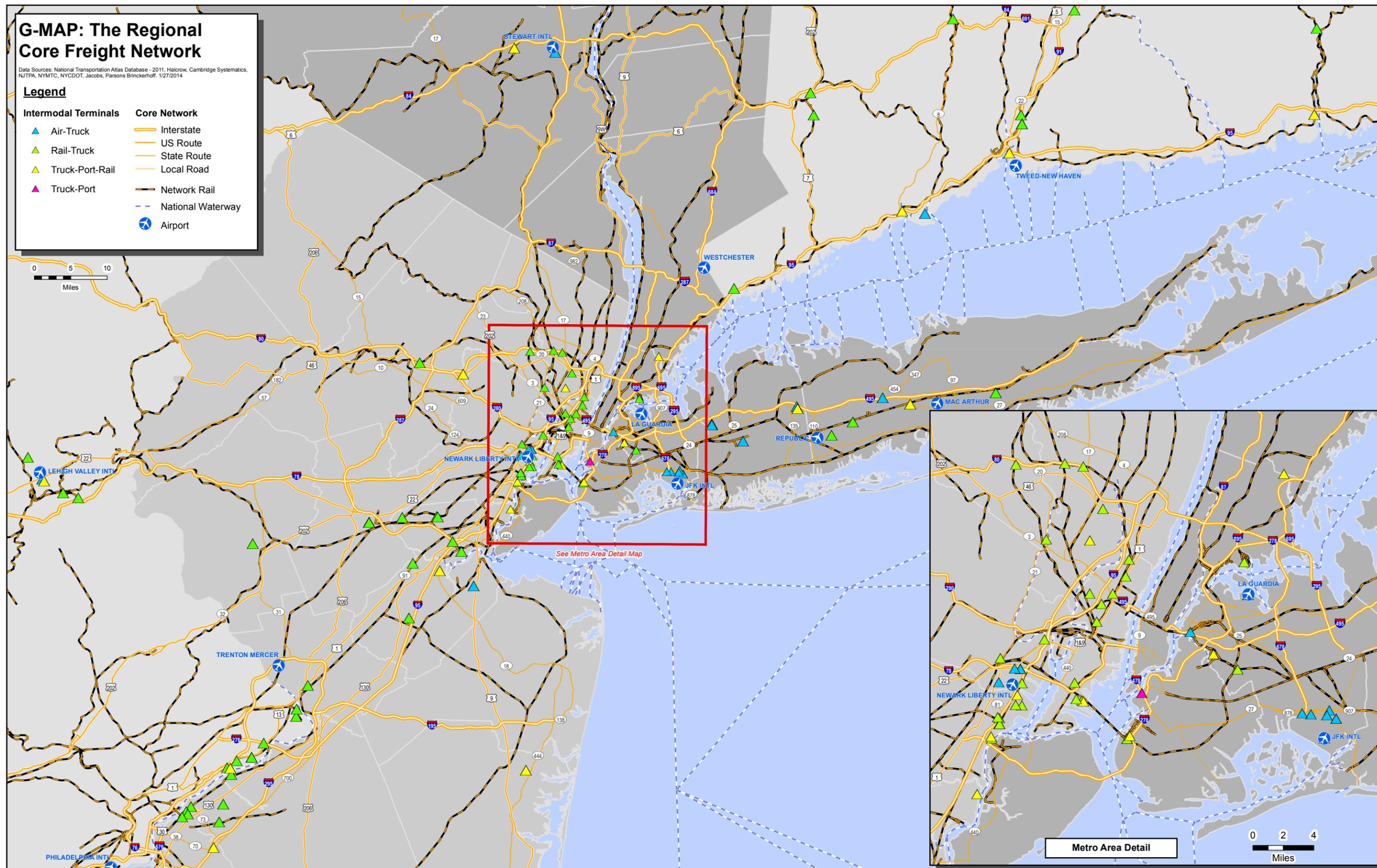
The waterways components of the Core Network are built from the National Waterways Network. All Deep Draft National Waterways Network links, which provide access to the marine terminals in the Port of New York and New Jersey, are included.

G-MAP: The Regional Core Freight Network

Data Sources: National Transportation Atlas Database - 2011, Halcrow, Cambridge Systematics, NJTPA, NYMTC, NYCDOT, Jacobs, Parsons Brinckerhoff, 1/27/2014

Legend

- | Intermodal Terminals | Core Network |
|----------------------|-------------------|
| Air-Truck | Interstate |
| Rail-Truck | US Route |
| Truck-Port-Rail | State Route |
| Truck-Port | Local Road |
| | Network Rail |
| | National Waterway |
| | Airport |



Action Packages: Creating a Regional Freight Portfolio

G-MAP outlines a series of 10 Action Packages that were developed to achieve G-MAP's vision. The key purpose of the Action Packages is to strategically select and marshal a combination of Actions to ensure mutual reinforcement and combined power. These Actions are new, planned, or underway and span from short- to long-term implementation horizons. The Actions in each Action Package synergistically build upon one another for maximum effect and have a range of investment requirements, including no-cost initiatives.

Packaging Actions also increases the likelihood of attracting investment through providing a system-wide perspective. As heard from stakeholder outreach from the finance sector, the ability to attract private investment often depends on government's ability to bundle discrete projects into a larger, integrated package that provides greater economic benefits to meet minimum investment thresholds or to fully address a problem. Too often, projects are completed on a piecemeal basis, resulting in potential chokepoints where improvements have not yet been made due to lack of coordination. Packaging Actions solves these issues.

In addition to creating synergies, packaging also brings efficiencies and synergies to implementation. For instance, joint implementation and management of on-call budgets, data architecture, and infrastructure projects can reduce administrative costs. Leveraging potential user fees or payment mechanisms to cross-fund or incentivize environmental initiatives or redevelopment programs can also reduce these costs.

The initial Action Packages are not exhaustive. As they are implemented and completed, Action Packages will be added to the Regional Freight Portfolio. Shifts in regional strategies or geographic focus can lead to the development of additional Action Packages. At the same time, the Partner Agencies and other regional entities will advance specific, local Actions in tandem with, and in support of, G-MAP.

Furthermore, many of the Actions are common to multiple Action Packages. This decision emphasizes the interconnectedness of the Core Network and highlights the fact that many of the Actions have broad, system-wide impacts, whether physical improvements or operational initiatives.

The initial 10 Action Packages reflect the Partner Agencies' collective view on what is most vital and achievable at this time. The Action Packages:

- » Provide an essential combination of policy and management tools to improve freight network operations
- » Improve all modes of transportation and parts of the supply chain

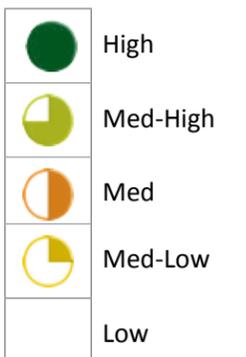
- » Provide discrete, geographic-specific projects for physical enhancements to the Core Network
- » Facilitate coordination and joint-implementation between the Partner Agencies
- » Collectively improve all dimensions of how goods move across the region.

Action Packages: Accomplishing the Goals

The selected combination of Action Packages progresses a comprehensive approach toward achieving G-MAP's goals outlined on page 2.

Action Package Goal Alignment

	Supply Chain Operations	Governance	Infrastructure	Funding & Finance	Land Use	Environment
Inside I-287: The First & Last Miles	Med-High	Med	High	Med	Med	Med
Airport Access: Delivering Priority Transportation	High	Med	High	Med	Med	Med
Multimodal Rail: Realizing the Rail Renaissance	Med-High		High	Med	Med-High	Med-High
GATES: Promoting the Region's Global Gateway	Med-High		High		Med	Med
I-95 Corridor: Serving the Northeast Megaregion	Med-High	Med	High			Med
Deploying Freight Technology for Smarter Operations	High	Med-High	High			Med
Capital Resources for the Financial Capital	Med-High	Med	Med-High	High	Med	Med
Off-Peak: Capturing Available Capacity	High	Med	Med-High	Med		Med-High
Regulatory Harmonization: Seamless Service Provision	High	Med-High	Med-High	Med		Med
Freight Preservation: Preserving Access and Facilities for Essential Freight Services	Med-High		High		Med-High	Med-High



Action Packages: Accomplishing the Strategies

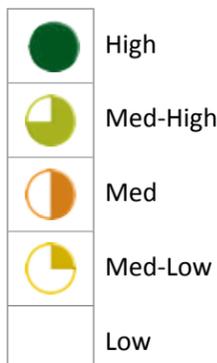
The Action Packages focus efforts to align with the priority strategies, while still acknowledging, and working toward, the remaining strategies.

Action Package Strategy Alignment

- Priority Strategies**
- Define, develop, and manage a core regional multimodal freight network
 - Shift demand away from congested facilities to off-peak periods
 - Employ a systems approach to freight network management through the use of Intelligent Transportation System (ITS) technology
 - Create regional consensus on performance improvement and performance measures
 - Organize and empower coordinated regional freight leadership
 - Expand access to capital for freight infrastructure projects
 - Pursue new and alternative revenue sources to supplement freight investment

- Harmonize freight network regulations across jurisdictions and amongst agencies
- Provide network resiliency, redundancy, and safety and security of goods through the supply chain
- Implement efficient lane and parking management strategies
- Coordinate and strengthen applications for federal funding
- Preserve and improve existing freight properties and their multimodal connections
- Foster new business models for distribution and consolidation
- Implement land use and other policies that enhance and support management of a Regional Core Freight Network
- Develop and promote public freight systems management capacity
- Build support for improving goods movement amongst local commerce and communities
- Incentivize less carbon-intensive freight operations
- Incentivize and promote sustainable, freight-appropriate land use and development patterns

	Define, develop, and manage a core regional multimodal freight network	Shift demand away from congested facilities to off-peak periods	Employ a systems approach to freight network management through the use of Intelligent Transportation System (ITS) technology	Create regional consensus on performance improvement and performance measures	Organize and empower coordinated regional freight leadership	Expand access to capital for freight infrastructure projects	Pursue new and alternative revenue sources to supplement freight investment	Harmonize freight network regulations across jurisdictions and amongst agencies	Provide network resiliency, redundancy, and safety and security of goods through the supply chain	Implement efficient lane and parking management strategies	Coordinate and strengthen applications for federal funding	Preserve and improve existing freight properties and their multimodal connections	Foster new business models for distribution and consolidation	Implement land use and other policies that enhance and support management of a Regional Core Freight Network	Develop and promote public freight systems management capacity	Build support for improving goods movement amongst local commerce and communities	Incentivize less carbon-intensive freight operations	Incentivize and promote sustainable, freight-appropriate land use and development patterns
Inside I-287: The First & Last Miles	High	Med-Low	Med	Med-Low				Med	Med-Low	Med-Low		Med		Med-Low		Med-Low		Med-Low
Airport Access: Delivering Priority Transportation	High	Med-Low	Med					Med	Med-Low	Med-Low		Med-Low	Med-Low	Med-Low				Med-Low
Multimodal Rail: Realizing the Rail Renaissance	High	Med		Med-Low					High			Med	Med-Low	Med-Low				
GATES: Promoting the Region's Global Gateway	High	Med	Med-Low	Med-Low					Med	Med-Low		Med	Med-Low					
I-95 Corridor: Serving the Northeast Megaregion	High	Med-Low	Med	Med-Low				Med-Low	Med	Med-Low		Med-Low		Med-Low				
Deploying Freight Technology for Smarter Operations		Med	High	Med				Med	Med						Med-Low	Med-Low	Med-Low	
Capital Resources for the Financial Capital	Med	Med-Low	Med-Low	Med	Med	Med-High	High	Med-Low		Med-Low	Med-High	Med	Med	Med			Med	Med-Low
Off-Peak: Capturing Available Capacity	Med	High	Med	Med-Low	Med	Med-Low	Med	Med-Low	Med	Med	Med-Low		Med	Med	Med	Med	Med	Med-Low
Regulatory Harmonization: Seamless Service Provision	High	Med	Med-High	Med	Med	Med-Low	Med	High		Med-Low	Med	Med-Low	Med	Med-Low	Med	Med	Med	Med
Freight Preservation: Preserving Access and Facilities for Essential Freight Services	High	Med-Low	Med-Low						Med			High		Med		Med-Low	Med-Low	Med



The Action Packages

Ten Action Packages will be initially implemented under G-MAP. Five of these packages provide management and policy levers useful to overall system performance and continued improvement of the Core Network. These packages will continue throughout the entirety of the Program and use a performance management program to track progress and record results. The remaining five packages have a geographic or modal focus, often sharing an infrastructure perspective.

The five management and policy Action Packages include:

1. Regulatory Harmonization: Seamless Service Provision

This package develops common regional protocols, policies, and definitions to allow freight, including oversize/overweight cargo, to move more safely and efficiently throughout the region.

2. Capital Resources for the Financial Capital

This package supports the implementation of many of the Action Packages by identifying innovative ways to finance freight projects. Fee-based strategies are important, but too many fees could undermine economic benefits. To counteract the potential negative repercussions of a fee-heavy approach, the package also includes Actions that bring more private sector investments to public sector infrastructure needs.

3. Deploying Freight Technology for Smarter Operations

This package emphasizes Actions that lead to increased freight efficiency and productivity, benefiting both the public and private sectors. This Action Package may be the most effective, low-capital improvement included in G-MAP.

4. Off-Peak: Capturing Available Capacity

This package addresses congestion in the New York-New Jersey metropolitan region by encouraging shippers to operate when the roadways are the least congested. This is an important yet difficult task that will require various levels of government and industry working together. As part of the package,

regulatory issues will need to be resolved to facilitate off-peak operability.

5. Freight Preservation: Preserving Access and Facilities for Essential Freight Services

This package encourages the preservation of scarce, well-situated industrial areas, such as Military Ocean Terminal at Bayonne (MOTBY) and other brownfield freight sites, throughout the region. Siting freight dependent operations close to terminals, highways, rail, and navigable waters can improve efficiency and reduce community and environmental impacts.

The remaining Action Packages, those with a specific modal or geographic focus, are:

6. Inside I-287: The First & Last Miles

This package details improvements to I-287—the region's prime concentration for shipping and receiving freight that is also in close proximity to industrial, commercial, sea, and air facilities. The core area inside I-287 experiences the region's highest levels of congestion, leading to service failure and increased costs to the freight industry.

7. I-95 Corridor: Serving the Northeast Megaregion

This package contains crucial interchange improvements along the I-95 Corridor, the foremost link in the region's multimodal global freight gateway. The package aims to improve flows along this corridor by all possible means, and incorporate every transportation mode.

8. Multimodal Rail: Realizing the Rail Renaissance

This package seeks to expand the region's rail capacity to accommodate trade growth between northern and southern markets, and capitalize on the advances in rail service throughout the last 20 years. Rail and intermodal connectors are critical for keeping and creating jobs, supporting economic growth, and accommodating the needs of the larger ships that will call at the region's ports.

9. Airport Access: Delivering Priority Transportation

This package strengthens competitive connections between airports and their industrial and consumer customers through various initiatives. Airports serve as enormous economic engines for the region, providing high-value goods and high-paying jobs, and making high-performance supply chain strategies viable.

10. GATES: Promoting the Region's Global Gateway

This package focuses on port access improvements and includes essential capacity additions for moving international containers to and from the marine gateway. The package will also directly benefit freight connections to Newark Liberty International Airport.

The total funding requirement for the 10 Action Packages is approximately \$24.5 billion, of which about 44 percent (\$10.7 billion) is currently funded while the remaining \$13.8 billion will require funding sources over the coming decades. This total figure is less than the sum of the Action Packages because a number of Actions, particularly the larger capital projects, are captured within multiple packages.

Action Package Profiles are presented at the end of this document. The Actions for each package are listed, along with their alignment with G-MAP's goals. While some Actions are clearly defined infrastructure projects, other operational initiatives will be further defined through the course of implementation.

Within each summary, an *Implementation Snapshot* graphic summarizes the relative cost, goal evaluation, anticipated timing, and implementation responsibility of the Actions. The lead agency identified for each Action reflects funding or jurisdictional responsibility. In many cases, they are jointly led, where funding or authority requires joint actions and approvals.

The funding status and timing shown represent the best available information at the time this Portfolio was published. All infrastructure Action items are represented in the Implementation Snapshot, depicted at the anticipated completion date. Conversely, Operational Action items are only graphically depicted if there are anticipated project costs. Information has been captured from capital programs,

public information, input from agencies, and industry experience. In all cases, funding requirements represent order-of-magnitude estimates.

Also included within each Action Package Profile is a summary that provides a comprehensive overview of the Action Package, a *Package Performance* dashboard that highlights key metrics that will monitor performance measures, and, where appropriate, an *Action Package Map* that visualizes infrastructure Actions along the Core Network.

The Early Actions

The Partner Agencies recognize that implementation requires a foundation in place on which to raise the Program. From the launch through the first six to 12 months, the Partner Agencies have agreed to focus efforts and resources on a shortlist of Early Actions that will be the first steps in moving G-MAP from the planning stage to implementation and delivery. These Early Actions can commence within currently available resources and will be completed, at least the first phases, within nine to 12 months. As these Actions build upon ongoing cooperative efforts by key agencies, some will require additional funding.

The Early Actions aim to achieve a series of quick wins to build momentum and demonstrate early successes around which to rally public and industry support. They begin with two organizational steps that codify the commitment of the Partner Agencies. A number of the Early Actions, especially those related to streamlining regulations, then build on efforts that regional agencies have been cooperating on for quite some time and are seeking resolutions to a number of challenges. However, as Early Actions, the Partner Agencies commit to renewed focus on these areas of activity, bringing accountability and oversight to advancing progress, and providing additional resources and champions to increase the pace of implementation.

The Early Actions utilize opportunities flowing from recent federal guidance, including MAP-21, so that the region can continue to position itself to maximize federal funding opportunities and to offer examples of best practice to influence national freight policy. Most importantly, the Early Actions lay the groundwork from which the Action Packages may be implemented.

The Early Actions the Partner Agencies have prioritized for 2014, in no particular order, include:

1 Draft an agreement amongst the Port Authority, NJDOT, and NYSDOT to establish the purviews, limits, guidelines, and accountability for direction of implementation

Objective: Establish an agreement amongst the Partner Agencies for initial implementation of G-MAP.

Scope: The agreement is an essential first step to commit the Partner Agencies to deliver the Early Actions and adopt a collaborative, multilateral approach to promoting the regional goods movement system. The agreement will authorize the Partner Agencies to complete a series of scope tasks both near-term and long-term, including:

- » Delivering the Early Actions, including committed resources for implementation
- » Developing a process and coordinating mechanisms for long-term delivery of, and updates to, G-MAP
- » Establishing mechanisms for sustainable governance and management of oversight for regional freight policy in general and implementation in particular.

2 Complete the transition to full Program implementation

Objective: Ensure continuous management is sustained during the transition from implementation of Early Actions to the complete G-MAP Regional Freight Portfolio, including funding dedicated, full-time staff resources.

Scope: A complete understanding of partner resources and responsibilities needed for full implementation requires time. This imposition necessitates a transition period between the conclusion of the planning process and the creation of staffing capacity to implement the overall Program, including the Early Actions. A Transition Team is charged with the management of the Early Actions during this period. The Transition Team's responsibilities are three-fold: first, undertake a staffing analysis to address financial and support

staff resources associated with overall Program management and implementation, provide recommendations to executive leadership at the three agencies, and carry out the approved staffing plan; second, respond to and engage stakeholders from public agencies and the private sector who want to know about or participate in implementation; and third, select and drive forward two or three of the remaining 10 Early Actions, including the interagency agreement. Early Actions selected during the transition period will build upon initiatives already underway, will focus on how the Program can identify new partners/resources to move the Action forward, and will leverage existing staff resources. The Transition Team will dissolve once action is taken on the staffing analysis recommendations and the Transition Team is replaced with the Core Implementation Staff.

3 Develop a Regional Strategic Plan for commercial vehicle enforcement operations

Objective: Coordinate commercial vehicle enforcement operations to make them more effective across the highway network and more efficient for regional agencies and carriers.

Scope: A regional approach to commercial vehicle enforcement operations offers opportunities to ensure an appropriate enforcement presence, thereby resulting in safe traveling and operations practices of system users. In the face of constrained budgets that are reducing agencies' abilities to operate inspection and weigh stations and conduct on-road patrols, this Early Action provides a cost-effective approach to improve commercial vehicle enforcement operations. The Regional Strategic Plan will leverage current state and federal Commercial Vehicle Operator (CVO) enforcement programs and best practices to identify and target the "worst offenders." The Early Action should explore opportunities to migrate from transponder-based screening to license-plate optical-character-recognition-based screening to take advantage of the rapid advances in this technology and the ability to screen larger numbers of carriers beyond those currently participating in PrePASS, and other screening technologies. The Regional Strategic Plan will identify and recommend available technology solutions, propose new monitoring and

enforcement practices and protocols, develop back-office coordination and communication protocols, and identify regulatory or legal issues that need to be mitigated or changed.

4 Consolidate and standardize definitions and regulations regarding operations for oversize/overweight vehicles

Objective: Reduce the time, distance, and cost of freight movement across and through the metropolitan region.

Scope: Standardize regional definitions and protocols for oversize/overweight vehicles operating across the metropolitan region. Standardization will enable more efficient carrier operations and lessen adverse community impacts on local roads that arise when carriers use circuitous state and local roads instead of more direct Interstate and National Highway System freight routes due to incompatible regulations between abutting states regarding divisible-, indivisible-, emergency-, and super-loads. The Early Action will focus on standardization of a few types of oversize/overweight truck movements that serve key industries and supply chains and then expand to other types of loads where there is an identified benefit to the regional economy, state agencies, and motor carriers. Ultimately, this Early Action enables seamless, legal movement by carriers across the region.

5 Streamline permitting for oversize/overweight vehicles, including coordinating existing agency permitting web portals

Objective: Reduce permitting costs to motor carriers and improve their compliance by streamlining the work required to apply for and obtain permits to move oversize/overweight truck loads.

Scope: Both New York State and New Jersey have programs underway to streamline and automate their motor carrier registration and permitting operations. However, streamlining and automation for oversize/overweight load permitting has lagged because of the complexity of analyzing special loads and because some records and analysis procedures have not been converted from paper to compatible computer databases. This Early Action will focus on identifying

an initial set of allowable loads and routes that are common across the metropolitan region and move to set these up for regional, streamlined permitting. It will also look to make best use of existing state systems, while examining newer communication technologies and platforms.

6 Connect JFK to the existing NYC 53-foot trailer through-route and the overall network

Objective: Establish legal highway routes for industry-standard 53-foot trailers to travel between JFK air cargo operations and regional and hinterland markets via the Van Wyck Expressway and other interstate network routes through the Bronx.

Scope: Identify and examine specific additions to the existing interstate highway route that will allow 53-foot trailers to access Nassau and Suffolk counties via the Bronx and Queens to legitimize access by these vehicles to JFK as part of a comprehensive effort to sustain the competitiveness of the regional air cargo industry. Previous analyses envisioned a highway route including the Van Wyck Expressway (VWE, I-678), the Long Island Expressway (I-495) between I-295 and the VWE, and the Cross-Bronx Expressway (I-95) between the George Washington Bridge and I-695, and the Major Deegan Expressway (I-87). Consideration should also be given to regional network connectivity with air cargo concentrations at Newark Liberty and Stewart International Airports.

7 Create an air cargo drop-off and consolidated trucking service to John F. Kennedy Airport (JFK) and Newark International Airport (EWR) from Stewart International Airport (SWF)

Objective: Establish SWF as a viable, integrated regional air cargo handling alternative with new capacity to accommodate regional demand and alleviate congestion within the region's air cargo system.

Scope: Commence scheduled ground shuttle service to allow companies approaching the metropolitan region from the north to drop off JFK- and EWR-bound air cargo shipments at SWF. From there, a Port Authority contractor will consolidate and truck the shipments to JFK and EWR in regular service.

The service could also operate in reverse, eventually delivering air cargo arriving at JFK and EWR to SWF for pick-up at that facility. The introduction of efficient ground connections between SWF and the region's main cargo airports is meant to establish usage, trucking productivity, and handling capabilities at SWF, so that these elements are in place as its air operations expand and the facility acquires a position in the region's air logistics network. Inclusion of some form of priority or expedited access at JFK and EWR should attract traffic to this service, and its operations may need to be subsidized to maintain regular schedules until demand levels become fully economical. The rationale for providing a subsidy is that a fully functioning SWF provides capacity, and ultimately cost relief, to other congested regional airports.

8 Develop specialization in Public-Private Partnerships (P3) and innovative freight financing techniques at the Partner Agencies

Objective: Create an in-house resource of skilled staff able to leverage their and the region's cluster of financial talent and innovation to deliver projects using alternate and innovative project delivery methods to meet freight needs.

Scope: This Early Action leverages the expertise being developed amongst the Partner Agencies through projects including the Goethals Bridge Replacement Design-Build-Finance-Maintain (DBFM) procurement and the Tappan Zee Bridge replacement to establish dedicated innovative project financing teams focused on funding freight projects. Staffing resources need to be decided, including whether to house teams within all three Partner Agencies or whether one focused, central group might be established with a region-wide remit to support the Partner Agencies. The team's mandate will need to be defined. Responsibilities are expected to include: developing a best practices manual for freight application, identifying a pipeline of projects, nurturing relationships with the financial community and federal financing officials, and leading on federal financing applications (especially TIFIA) and mechanisms to advance projects on behalf of its respective agency.

9 Expand the NYC off-peak delivery program regionally

Objective: Develop and launch a regional off-peak pilot program for commercial and industrial centers that builds off lessons-learned from NYC's off-peak delivery pilot wherein some participating shippers successfully moved their deliveries to the nighttime period, successfully reducing carrier travel time and costs while removing truck traffic from congested peak hours.

Scope: This Early Action develops the scope for a regional off-peak delivery program and implements the initial pilot. A fully developed program is envisioned to encompass five or more locations—Southern New Jersey/Philadelphia, Central New Jersey, Northern New Jersey, an expanded New York City area, and Long Island. A scoping study will identify the technology, security, and other operational requirements, confirm locations, propose and recruit target participants, and establish methods to track results. Pilot operation will then commence for a defined period of time. Results will be reported

and appropriate recommendations made for the continuation and expansion of the program. This will include estimates of requirements for dedicated staff; staff activities to foster industry adoption, including marketing, meeting and coordination, and operations planning; and evaluation of inducements or support that the Partner Agencies may provide to expand the program.

Interconnected Actions

Many of G-MAP's Actions are included in multiple Action Packages, highlighting the interconnectedness of the goods movement system. This table highlights this relationship as it displays how the 12 Early Actions relate to the 10 Action Packages.

The Early Actions

	Inside I-287: The First & Last Miles	Airport Access: Delivering Priority Transportation	Multimodal Rail: Realizing the Rail Renaissance	GATES: Promoting the Region's Global Gateway	I-95 Corridor: Serving the Northeast Megaregion	Deploying Freight Technology for Smarter Operations	Capital Resources for the Financial Capital	Off-Peak: Capturing Available Capacity	Regulatory Harmonization: Seamless Service Provision	Freight Preservation: Preserving Access & Facilities for Essential Freight Services
1. Draft an Interagency Agreement for Implementation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Complete Transition to Full Implementation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Develop a Commercial Vehicle Enforcement Plan	✓	✓		✓	✓				✓	
4. Harmonize Oversize/Overweight Vehicle Regulations	✓			✓	✓				✓	
5. Streamline Permitting for Oversize/Overweight Vehicles	✓			✓	✓	✓			✓	
6. Connect JFK to the 53-foot Trailer Route	✓	✓			✓				✓	
7. Implement Consolidated Trucking Service from SWF		✓						✓		
8. Develop Innovative Freight Financing Specialization	✓	✓	✓	✓	✓		✓			
9. Expand the NYC Off-Peak Delivery Program	✓	✓		✓				✓		
10. Designate an I-95 Virtual Freight Corridor	✓	✓		✓	✓	✓				
11. Commit to Implementing the GATES Package	✓	✓	✓	✓	✓					
12. Achieve 286k National Rail Standards			✓	✓					✓	

10 Designate an “I-95 Virtual Freight Corridor” that integrates ITS components—such as real-time traffic and truck routing information, Weigh-in-Motion, and shared enforcement information—to leverage the work done by TRANSCOM and the I-95 Corridor Coalition

Objective: Improve the flow of goods along a key regional corridor and demonstrate state-of-the-art integrated freight network management and operations.

Scope: This Early Action obtains the authorization and commitment from regional partners to spur the creation of the region’s first fully-integrated virtual freight corridor. A scoping document will summarize the current state of existing technology platforms in use by each agency along the corridor and develop proposed work streams for each technology area. Implementation team requirements, including potential dedicated staff who will coordinate between implementation partners and proactively manage and advance work streams, will be outlined in a budget proposal to guide agencies in authorizing required resource commitments. Roles, responsibilities, and anticipated commitments for each implementation partner should be summarized in an interagency agreement.

11 Commit to implementing the GATES package of infrastructure and operational Actions

Objective: Ensure the region’s ports have available capacity that can accommodate increased global trade activity and spur regional economic growth by delivering \$8.7 billion in key regional infrastructure projects.

Scope: This Early Action commits the Partner Agencies to GATES—Global Access Through Efficient Shipping—implementation. GATES is a decade-long, \$8.7 billion package of improvements to the regional network that supports growth in global maritime trade. Through a series of operational infrastructure initiatives, GATES makes the key components of the region’s trade system better: the marine cargo terminals and facilities, the way cargo is moved to market, and the way goods are distributed to the consumer. Many of the projects contained in the GATES package are already fully funded or partially

funded and on-schedule for delivery within the next five years. This includes the Goethals Bridge Replacement, raising the deck on the Bayonne Bridge, the New Jersey Turnpike Interchange 14A improvements, and aspects of the Portway project. Completion of these projects will mark delivery of the first phases of the GATES package. Other projects have been delayed due to funding constraints. However, the Partner Agencies agree to pursue the funding needed to meet the goal of implementing these improvements within the next 10 years.

12 Achieve regional consistency with 286k national rail standards

Objective: Achieve regional consistency with national rail standards by providing a 286k compliant route to industrial businesses in Passaic County, thereby ensuring the region’s ability to retain businesses that are reliant on freight rail access.

Scope: Develop a program with NJ Transit to permit heavier weight rail cars over bridges along the Bergen and Main Lines, including the HX Bridge. Building off of 286k capacity on most of the region’s main lines, this Early Action is one step in the continuing effort to increase the attractiveness of rail transport to businesses along New York’s and New Jersey’s local rail lines and to improve overall network operations.

Oversight: A New Approach to Joint Regional Implementation

G-MAP’s implementation requires sustained attention by the Partner Agencies and integration with the overall transportation programs of both states and the federally designated metropolitan planning organizations serving the region. This will require dedicated staff and management that evolve and grow with the Program, from small groups handling first Actions and reflecting current institutional formats, to larger groups and formats as resources are attracted and the workload builds. The management structure must allow for decisions to be made within institutional mandates, provide oversight of individual Actions and the total Program across the partnership, and form a sound base that is able to ramp up with the level of activity. The primary elements of the management structure are an Executive Committee

and a Core Implementation Staff, supported by departmental resources amongst the Partner Agencies.

The Executive Committee

Progress on the overall implementation of G-MAP, including the Early Actions, will be monitored by the Executive Committee. This Committee is a natural extension of the Steering Committee, which provided oversight during the drafting of G-MAP. The G-MAP Executive Committee will consist of representatives from NYSDOT, NJDOT, and the Port Authority, with roles and responsibilities specified in the interagency agreement. As other partners participate in the agreement, they will be added to the Executive Committee. This Committee will be primarily responsible for providing oversight of the Core Implementation Staff, and oversight of the implementation of the Early Actions and their transition into Action Packages.

The Core Implementation Staff

The implementation of the Action Packages requires dedicated personnel in several arenas, including core staff devoted to comprehensive management of G-MAP. Dedication of core personnel is a critical requirement. This will supply continuity of focus and effort, allow accumulation of skill, sustain interagency relationships, and reflect national experience in the characteristics of successful programs. The Core Implementation Staff (Core Staff) will:

- » Administer, oversee, and coordinate overall implementation
- » Provide regular reports to the Executive Committee on progress and performance
- » Direct implementation of some Actions and Action Packages and coordinate the implementation of others
- » Provide a focal point for regional freight direction-setting—including the identification of new freight projects and funding
- » Support continuous coordination and exchange of information with other public agencies
- » Track progress on overall implementation, including tracking performance measures

- » Provide technical support, as available, to the lead agency responsible for the implementation of each Early Action
- » Promote and advance connections between regional efforts and national priorities, including shaping initial freight elements of MAP-21, and contributing to broader, long-term freight programs in collaboration with USDOT
- » Serve as a primary point of contact for private and public sector coordination on freight issues
- » Support a public communications campaign to build regional awareness, community support, and political capital.

The Core Staff should begin with four full-time dedicated members, with at least one contributed by each Partner Agency for the sake of institutional influence and balanced commitment. Additional employees within the Partner Agencies will provide specialized expertise. While paid by, equipped by, and responsible to their contributing agencies, the Core Staff will function as a single, integrated project office, working routinely with one another and reporting to the Executive Committee. This level of staffing is sufficient to direct the implementation of the full span of Early Actions, and to commence its segue into executing the Action Packages.

The Core Staff will be an interdisciplinary team possessing skills in freight planning or operations, analytic expertise in transportation data and economics, written and oral expression skills, a capacity to lead from below, an ability to coordinate with regional agencies, and a firm understanding of public policy. While financial skills generally will be developed through P3 specialization, the Core Staff must be able to organize that effort, and have the financial acumen to recognize and seize upon funding opportunities. The latter is additionally important because as the Program grows, it may become possible to attract funding directly to the Program office and render it partially self-supporting.

Monitoring Performance

In order to manage the region's Core Network effectively, to respond to evolving regional needs and priorities, and to communicate progress and demonstrate the benefits arising from regional freight investments to the broader public, the Partner Agencies need to collect and monitor the results of their progress. Thus, a key component of G-MAP will be the adoption and publication of targeted performance measures. This will be achieved at two levels: a top-line overarching set that summarizes system-wide performance, and a secondary level tailored to individual Actions. In keeping with industry best practice, and the system-wide perspective inherent in G-MAP, the performance management framework will be multimodal and reflect a broad array of performance concerns, reflective of G-MAP's goals.

Freight system performance management is a relatively nascent but rapidly evolving area of focus within the public sector. Data sources and availability continue to improve in keeping with broader analytic and technology trends. MAP-21 has brought renewed attention and emphasis to the need to collect and monitor measurable and objective data, and to develop consistent methodologies and standards to allow comparisons and benchmarking. Performance and transparent reporting play an ever-increasing role in project selection for federal funding.

As performance measures evolve, so will the G-MAP framework. One charge of the Core Staff will be to monitor and update the performance framework over time. A number of performance measures are easily quantified today, with data that is readily available and methodologies that are broadly accepted and applied throughout the industry and peer agencies. Other performance measures require a greater level of coordination, compilation and processing of data, or may warrant acquisition of new, privately-sourced datasets. Additionally, some measures will become useful as Action Packages are implemented, but methodologies specific to the Actions performed will need to be developed and agreed upon together.

The Performance Framework

The performance framework is developed around six key metrics that can be used for oversight and monitoring. These six metrics include:

Freight Demand & Throughput

An increase in freight demand will translate into pressure to invest in and improve supply chain operations, infrastructure, and land use. Conversely, a precipitous drop in freight demand, as experienced in the recent recession, will translate into less pressure on the Core Network. Freight demand is closely correlated with economic growth, and the best way to track and anticipate likely future demand for freight is to monitor projected changes in economic activity. In the metropolitan region, where freight and port activity are overwhelmingly driven by local and regional demand, the performance of the local economy is a particularly good predictor of future freight needs. At the same time, volume data helps to quickly convey the magnitude of freight activity, including container throughput at the marine terminals, ExpressRail volumes, mainline rail volumes, or truck volumes on specific Core Network corridors.

System Efficiency

System efficiency provides insights into how well the network is operating. Defining the efficiency of the freight system is complex due to the disparate needs of shippers. A corridor that may be perfectly suitable for a less-time-sensitive shipper of scrap metal may be intolerably congested for a more-time-sensitive shipper of perishable food products. Travel time and travel time reliability on representative freight corridors and freight carrier average operating costs are three measures that provide a snapshot to look at how network users are faring.

System Condition

The physical condition of the network is important to efficient operations. Pavement condition correlates with both the need for resurfacing and reconstruction of roadways, and also with the cost of wear-and-tear on freight trucks. Structurally deficient bridges with weight restrictions are less likely able to accommodate heavy freight trucks, forcing circuitous rerouting that adds significantly to carrier costs, fuel consumption,

and emissions. In other cases, bridges fail to serve freight effectively because of dimensional restrictions that make them inadequate for handling significant truck volumes.

Safety & Security

A safe and secure regional goods movement system is necessary to support robust economies and healthy communities. Safety of the system is best measured by the number of truck-involved fatalities and serious injuries. Security on the other hand is more complex. Security metrics must address the ability of a project to reduce the risk of network failure and improve redundancy of the Core Network, particularly as it relates to security concerns when the network may be suddenly and unexpectedly disabled. Redundancy can be gauged by determining whether or not alternative highway facilities meet three criteria: (1) equivalent or comparable classification, capacity, and condition; (2) within a reasonable (~ five mile) distance from a Core Network roadway; and (3) more or less parallel to a Core Network roadway.

Investment

The key proposed measure for freight system investment is capital investment in regional freight corridors. Although it is seldom reported separately, investment in traffic and congestion management systems and their operation is also desirable as an indicator. Each Action Package has a compilation of pertinent data of both sorts, with indication of funded and unfunded portions. This can be used as a measure and maintained as a basic component of management to track progress in securing funding and implementing the Actions.

Environment

At the scale of a regional freight network, the most accessible and appropriate measure of environmental performance is the level of Greenhouse Gas (GHG) emissions. GHG emissions can be approximated based on vehicle-miles of travel and emission rates by type and age of the truck fleet. While absolute levels may increase with growing volumes, declines on a per unit basis reflect decreased congestion, travel times, and idling, and gains in the adoption of cleaner technologies.

Conclusion: Looking Ahead

G-MAP opens the door to the future the region wants. The New York-New Jersey metropolitan region is a global hub in today's world; G-MAP helps secure that place in tomorrow's world. The challenges that come from the region's size, density, and diversity are mirrors of its strengths. When its resources are channeled and its efforts harmonized, the region turns a multitude of individual Actions into Action Packages of considerable power—like pixels combining into clear vision.

The cornerstones of G-MAP—its multimodal Core Network, its commitment to partnership, its Early Action initiatives and the 10 Action Packages they lead to—address the needs of commerce, community, and trade as they exist now and are anticipated to evolve. As a \$24.5 billion region-wide program, G-MAP has the scale and scope to meet the competitive demands of the global economy. As a live program, G-MAP encourages the region to adapt, so that whatever the years ahead may bring, the future the region wants can remain in reach.

G-MAP carries the region forward with short, quick steps now, turning into long strides later. The critical and immediate action now is to start taking those steps to create a safe and efficient goods movement system in the New York-New Jersey metropolitan region.



REGULATORY HARMONIZATION: SEAMLESS SERVICE PROVISION

The Regulatory Harmonization Action Package reduces the time, distance, and cost of goods movement within the region and increases regulatory compliance, which subsequently improves the safety of the region's transportation users. NYSDOT, NJDOT, and NYCDOT co-lead this package with support and input from the Port Authority, local governments, carriers, Federal Motor Carrier Safety Administration (FMCSA), the I-95 Corridor Coalition, and Northeast Association of State Transportation Officials (NASTO). Drawing on existing staff and budgets, this package demands virtually no additional costs and houses a number of Early Actions that commence immediately. That said, overcoming technology barriers and institutional differences requires assigned staff, continuous dialogue, and long-term collaboration.

A number of Early Actions involve regulatory harmonization. As a starting point, the efforts focus on the Core Network and then expand to local roads and access points. Common protocols, definitions, and requirements will be proposed for regional adoption. Streamlining permitting efforts will look at harmonization and permitting of a few existing and consistent regulations, and subsequently expand to other permit types. The Action Package complements Airport Access and Inside I-287 with efforts to provide 53-foot trailer access between JFK, the national highway network, and distribution centers.

The Action Package also recognizes the importance of available multimodal transportation options. Regulatory solutions for meeting national rail standards will be advanced, including making regulatory changes to allow expanded 286k access.

Package Performance

	Freight Demand	System Efficiency	System Condition		Safety/Security	Investment	Environment
Metric	Freight volume by mode	Qualitative measures to assess progress from Early Actions	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Qualitative measures to assess progress from Early Actions	Capital investment in regional freight corridors and facilities	GHG emissions
Trend		➔			➔		
Goal		➔			➔		

Component Actions

Notes:
 *Denotes an Action that is common to multiple Action Packages
 Bold text represents an Early Action

● High
● Med
● Med-Low
● Low

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
Grouped Actions	130	Consolidate and standardize definitions of oversize/overweight vehicles	●	●	●	●	●	●
	131*	Consolidate and standardize regulations regarding operations for oversize/overweight vehicles	●	●	●	●	●	●
	354	Standardize network signage policies, including those for vertical clearance buffers	●	●	●	●	●	●
	132*	Streamline permitting for oversize/overweight vehicles, including coordinating existing agency permitting web portals	●	●	●	●	●	●
Grouped Actions	134*	Provide access to industry-standard 53-foot trailers between NY, NJ, and the rest of the national highway network	●	●	●	●	●	●
	135*	Connect JFK to the existing NYC 53-foot trailer through-route by adding the Van Wyck Expressway (VWE, I-678) and the Long Island Expressway (I-495) between I-295 and the VWE	●	●	●	●	●	●
	136*	Expand the NYC 53-foot trailer through-route by adding the Cross Bronx Expressway (I-95) between the George Washington Bridge and I-695	●	●	●	●	●	●
	137*	Allow 53-foot trailers to access major distribution centers 1 mile from the NYC 53-foot trailer through-route	●	●	●	●	●	●
	45*	Achieve consistency with 286k national rail standards along major rail corridors and appropriate lines across the region	●	●	●	●	●	●
	212	Define public sector responsibility for operational management of the Core Network, including performance improvement and regulatory consistency	●	●	●	●	●	●
	351	Develop a Regional Strategic Plan for Commercial Vehicle Enforcement Operations	●	●	●	●	●	●

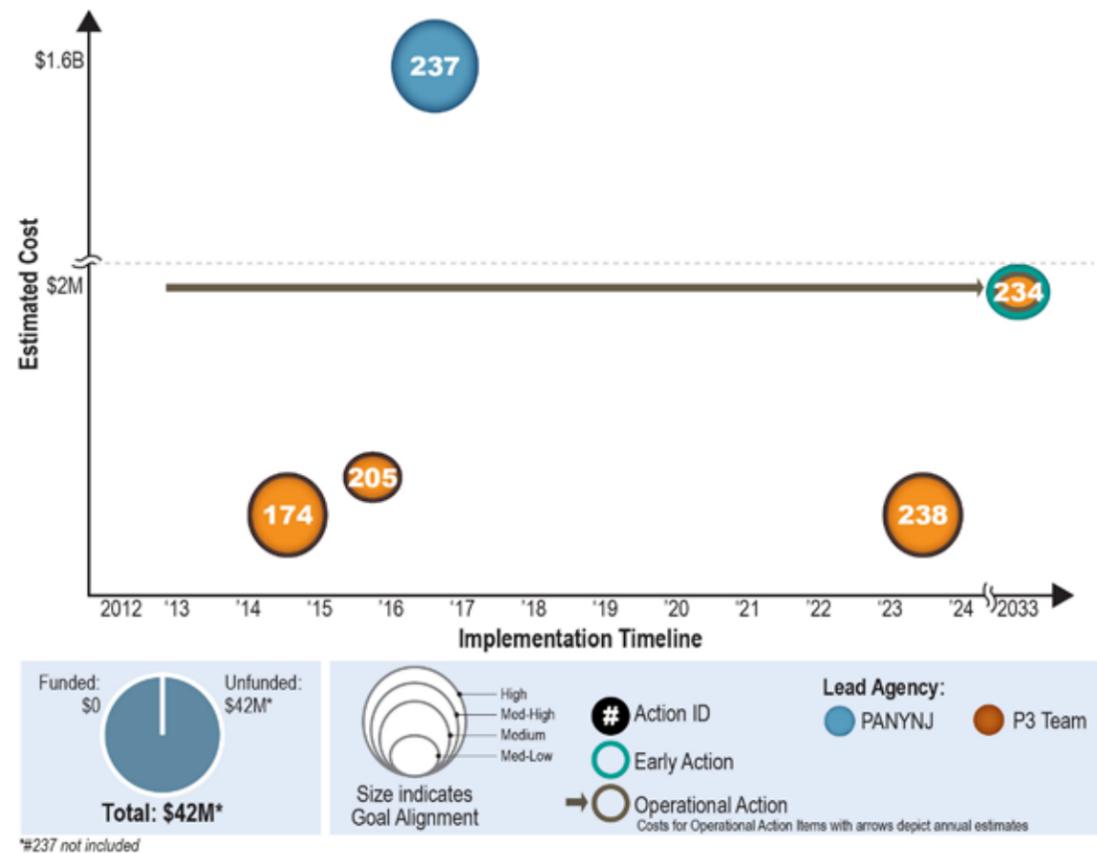


CAPITAL RESOURCES FOR THE FINANCIAL CAPITAL

The Capital Resources Action Package focuses on bridging the funding gaps in G-MAP implementation. The Action Package kicks off with an Early Action to develop specialization at the Port Authority, NJDOT, and NYSDOT in P3s, and in innovative financing of freight applications for regional use. The Action Package is ultimately led by the P3 Team thus established. This centralized Team serving the Partner Agencies requires an annual operating budget of approximately \$2 million. In the near-term, the P3 Team will develop a pipeline of potential freight corridors and projects attractive to private sector investment. Replacement of the Goethals Bridge using P3 financing will provide lessons learned that can be included in a best practices manual for financing of freight projects. In coordination with Core Staff, mechanisms to generate, supply, and organize regional freight funds will be developed. Regional standards for calculating private sector benefits resulting from public sector investments and actions will be established. The P3 Team will also support the Core Staff in developing applications for federal funding.

Over the long-term, as relationships with the financial sector mature, the creation of a regional infrastructure bank is envisioned. The P3 Team would lead a scoping study to determine its feasibility, appropriate size, and funding.

Implementation Snapshot



Package Performance

	Freight Demand		System Efficiency		System Condition		Safety/Security		Investment	Environment	
Metric	Gross Regional Product	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↗	↗							↗		
Goal	↗	↗							↗		

Component Actions

Notes:
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³This is a program of multiple related projects
 Grouped Actions share a common agency lead and common budget/funding pool
Bold text represents an Early Action

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
205 ¹	Develop standards for identifying and calculating private sector benefits resulting from public sector investments	🟡		🟡		🟢		
206	Quantify private sector benefits resulting from public sector investments	🟡	🟡	🟢	🟡	🟢		
207	Develop mechanisms to calculate potential user fees based on private sector benefits from public sector investments	🟡	🟡	🟢	🟡	🟢		
240	Pursue cost-sharing opportunities to develop projects with the private sector, reflective of accrued private sector benefits	🟡		🟢	🟡	🟢		
245	Adopt private user fees to fund operations of public freight services	🟡	🟡	🟡	🟡	🟢		
293 ²	Evaluate the benefits of enacting user fees to minimize vehicle miles traveled (VMT) in the region	🟡	🟡	🟡	🟡	🟡	🟡	🟡
211	Identify a coordinating agency or entity able to generate, supply, and organize freight funds	🟡	🟡	🟢	🟡	🟡		
213	Define the public sector's responsibility for managing capital investment in the Core Network	🟡		🟢	🟡			
234¹	Develop specialization in Public-Private Partnerships (P3) and innovative freight financing techniques at the Partner Agencies	🟡		🟢		🟢		
174 ¹	Study opportunities to leverage private investment to improve Core Network performance, including managed use of all-vehicle lanes or commercial vehicle priority lanes	🟡	🟡	🟢	🟡	🟢		
230	Partner with the private sector to finance freight projects	🟡		🟢	🟡	🟢	🟡	
231	Expand the use of credit supports and investment tax credits for private infrastructure investment, such as the rail freight tax credits offered by Pennsylvania	🟡		🟡		🟢	🟡	
232	Bundle related freight projects across jurisdictions to increase their potential for private funding	🟡		🟡		🟢		
235	Identify corridors or Rights-of-Way that are most suitable for freight P3 initiatives	🟡		🟢		🟢		
236	Identify the public sector's role and participation in freight P3 initiatives	🟡		🟢		🟢		
226	Specify how projects deliver region-wide benefits when applying for federal funds, specifically noting how the projects align with G-MAP and the Core Network	🟡		🟢	🟡	🟡		
227	Identify projects that have multiagency support and are consistent with G-MAP and the Core Network	🟡		🟢	🟡	🟡		
228	Jointly submit regionally significant G-MAP projects to USDOT to obtain federal funding and/or credit assistance			🟢	🟡	🟡		
238 ¹	Create a regional infrastructure bank in order to pool funds to finance larger, strategic projects	🟡	🟡	🟢	🟡	🟢		
Infrastructure Actions								
237 ²	Replace the Goethals Bridge utilizing innovative financing techniques	🟡	🟡	🟡	🟢	🟢		

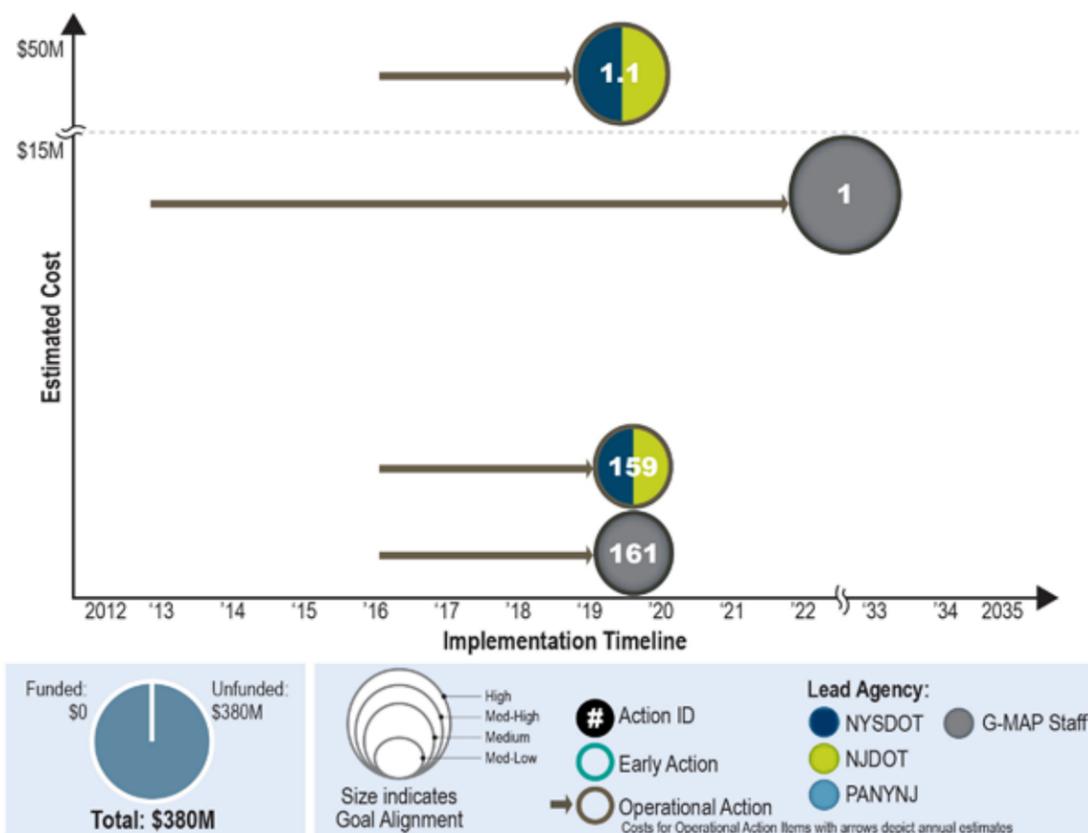


DEPLOYING FREIGHT TECHNOLOGY FOR SMARTER OPERATIONS

The Deploying Freight Technology Action Package concentrates public capacity management technology on the Core Network and moves it toward integration with the real-time decision systems of freight carriers. It is a \$380 million operational package functioning over 20 years, providing operating management to the Core Network, extending its capabilities, tracking its performance, and creating mechanisms to improve it. Leadership is provided by the Core Staff working with DOT personnel in operating centers and staff at TRANSCOM.

The Action Package commences with two steps. The first is an Early Action that establishes an I-95 Virtual Corridor, that capitalizes on the work of TRANSCOM and the I-95 Corridor Coalition to deploy ITS technology as broadly as possible along the Core Network. Second is the dedication and training of personnel in operating centers to focus existing traffic monitoring systems on the Core Network. These Actions are expanded starting in 2016 with new efforts directed at cooperation and integration with freight carrier systems, and expansion of monitoring and management to all components of the Core Network. While the Action Package's implementation budget is projected to 20 years, management efforts are expected to continue indefinitely.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency			System Condition		Safety/Security		Investment	Environment
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend		↑	↓	↑					→	
Goal		↓	↑	↓					↑	

Component Actions

Notes:
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Bold text represents an Early Action

Legend:
 ● High (Dark Green), ● Med (Orange), ● Med-High (Light Green), ● Med-Low (Yellow), ● Low (Light Blue)

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
1 ¹	Define, establish, and manage a core network of roadways, infrastructure, and connections that provide the backbone of service to the region	●	●	●	●	●	●	●
1.1 ¹	Implement traffic monitoring methods along the entirety of the Core Network	●	●	●	●	●	●	●
146 ²	Identify alternative routing elements of the Core Network to help alleviate system disruptions	●	●	●	●	●	●	●
160 ²	Use technology to monitor truck traffic flows along key freight corridors and known bottlenecks	●	●	●	●	●	●	●
196 ²	Systematically collect and analyze general and truck traffic flows and conditions along major truck routes	●	●	●	●	●	●	●
132²	Streamline permitting for oversize/overweight vehicles, including coordinating existing agency permitting web portals	●	●	●	●	●	●	●
159 ^{1,2}	Develop and implement freight ITS technologies	●	●	●	●	●	●	●
165 ²	Increase truck trip time predictability through dynamic routing information and traffic control measures along key corridors	●	●	●	●	●	●	●
167 ²	Provide dynamic alternate routing information on key transportation corridors and bottlenecks, such as the I-95 corridor	●	●	●	●	●	●	●
161 ^{1,2}	Work with TRANSCOM to ensure accurate network performance data is disseminated to the public and private sectors	●	●	●	●	●	●	●
162 ²	Develop traffic information services targeted towards commercial vehicles, including information by route, time of day, and carrier operation	●	●	●	●	●	●	●
163 ²	Enhance the coverage and accuracy of truck route and traffic information by collaborating with freight and navigation companies to include their knowledge of local truck restrictions and use regulations	●	●	●	●	●	●	●
164 ²	Enhance truck route and traffic information coverage by collaborating with freight and navigation companies	●	●	●	●	●	●	●
168 ²	Utilize FRATIS (a federal open-source program) applications to support improved truck operations and exception procedures	●	●	●	●	●	●	●
223	Integrate technology and communications between the public and private sectors in order to improve overall system management and performance	●	●	●	●	●	●	●
198 ²	Develop and publish freight route performance data	●	●	●	●	●	●	●
200	Emphasize performance measures that respond to competitive funding requirements	●	●	●	●	●	●	●
201	Identify and deploy appropriate technology for Core Network performance monitoring, management, and enforcement	●	●	●	●	●	●	●
202	Utilize regional freight performance measures	●	●	●	●	●	●	●
350²	Designate an "I-95 Virtual Freight Corridor" that integrates ITS components and shared enforcement	●	●	●	●	●	●	●

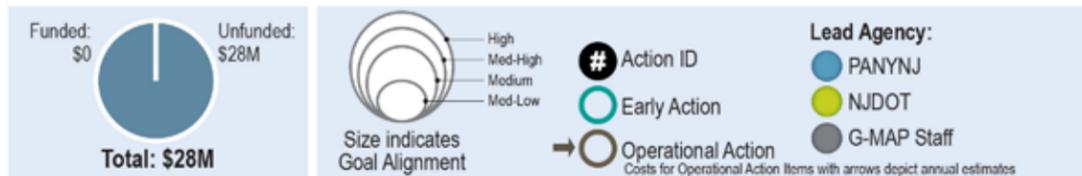
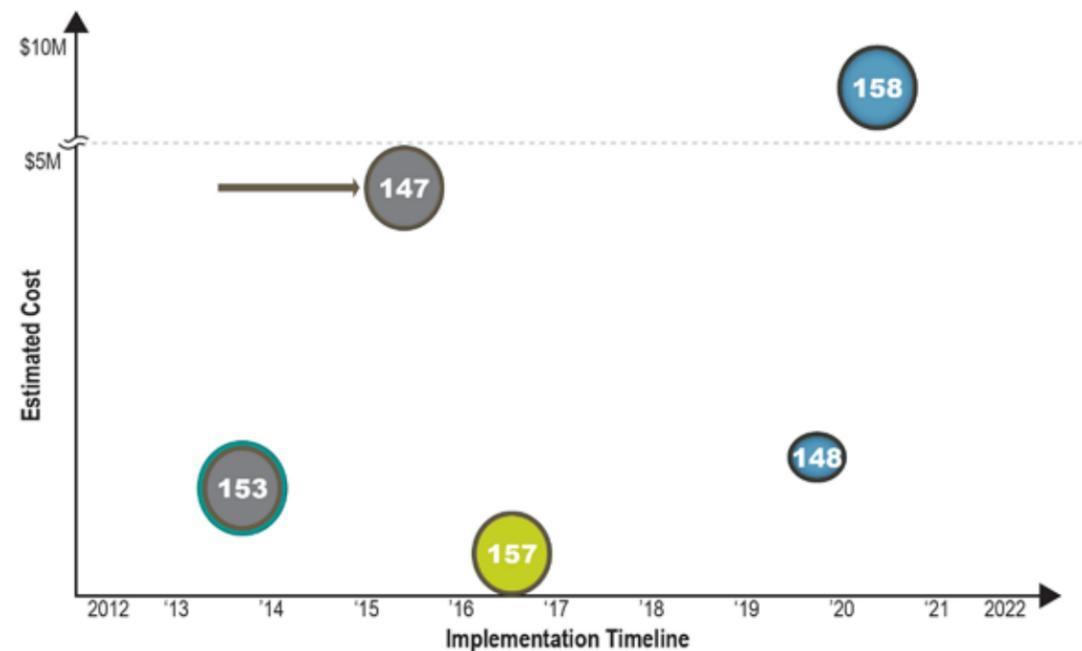


OFF-PEAK: CAPTURING AVAILABLE CAPACITY

Off-Peak is an operational Action Package aimed at changing business as usual for the sake of higher productivity and better business logistics. Calling for no major infrastructure investments and intending to diminish the need for them, it outlines a \$28 million development program staged over nine years. The Action Package reaches into the community of freight receivers and shippers throughout the region's commercially intensive districts to establish practical tools and secure procedures for driver services outside conventional work hours, without adding off-hour costs. It is directed by the Core Staff and is designed as a persistent effort at pragmatic behavioral change in a material portion of the business community.

The Action Package begins with an Early Action building on lessons from NYCDOT's off-peak delivery pilot. A scoping study will then identify areas for expansion with high potential for success. Transportation Worker Identification Credential (TWIC) cards, protected parking incentives, and pricing reinforcement could be instrumental for the pilot's success. The second stage at the five-year point turns to marine terminal gate hours and external relay yards. This stage draws on Port Authority leadership to move the generation of cargo shipments off-peak and to utilize a new foundation of customer acceptance for their delivery.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency		System Condition	Safety/Security	Investment	Environment			
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↗	↗	↘	↗						
Goal	↗	↘	↗	↘						

Component Actions

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Bold text represents an Early Action

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
147 ^{1,2}	Develop a regional off-peak goods movement pilot program	Med	Med	Med	Med			Med
150	Develop off-peak pick-up and delivery activity at major distribution centers	Med	Med	Med	Med			
151	Develop off-peak pick-up and delivery activity at end user/retailer locations	Med	Med	Med	Med			
152	Develop incentives for off-peak goods movement along the Core Network and at regional facilities	Med	Med	Med	Med			
153¹	Expand NYCDOT's off-peak delivery program regionally	Med	Med	Med	Med			Med
154 ²	Develop an off-peak deliveries guidebook outlining safe, secure, and community-sensitive operations, including shipper/receiver credentialing and requisite equipment and facilities	Med	High	Med	Med			Med
157 ^{1,2}	Explore extending truck access on the northern end of the Garden State Parkway in New Jersey	Med	High		Med-High			Med
148 ¹	Expand gate hours at marine terminal facilities	Med	Med	Med	Med			
149	Develop off-peak pick-up and delivery activity at marine terminal facilities	Med	Med	Med	Med			
158 ^{1,2}	Expand container staging areas outside marine port terminals to facilitate off-peak deliveries and pick-ups	Med	Med	Med	Med			Med
219	Coordinate with private sector owners and managers of the Core Network (marine terminals, railroads, etc.)	Med	Med	High	Med			
293 ³	Evaluate the benefits of enacting user fees to minimize vehicle miles traveled (VMT) in the region	Med	Med	Med	Med	Med	Med	Med

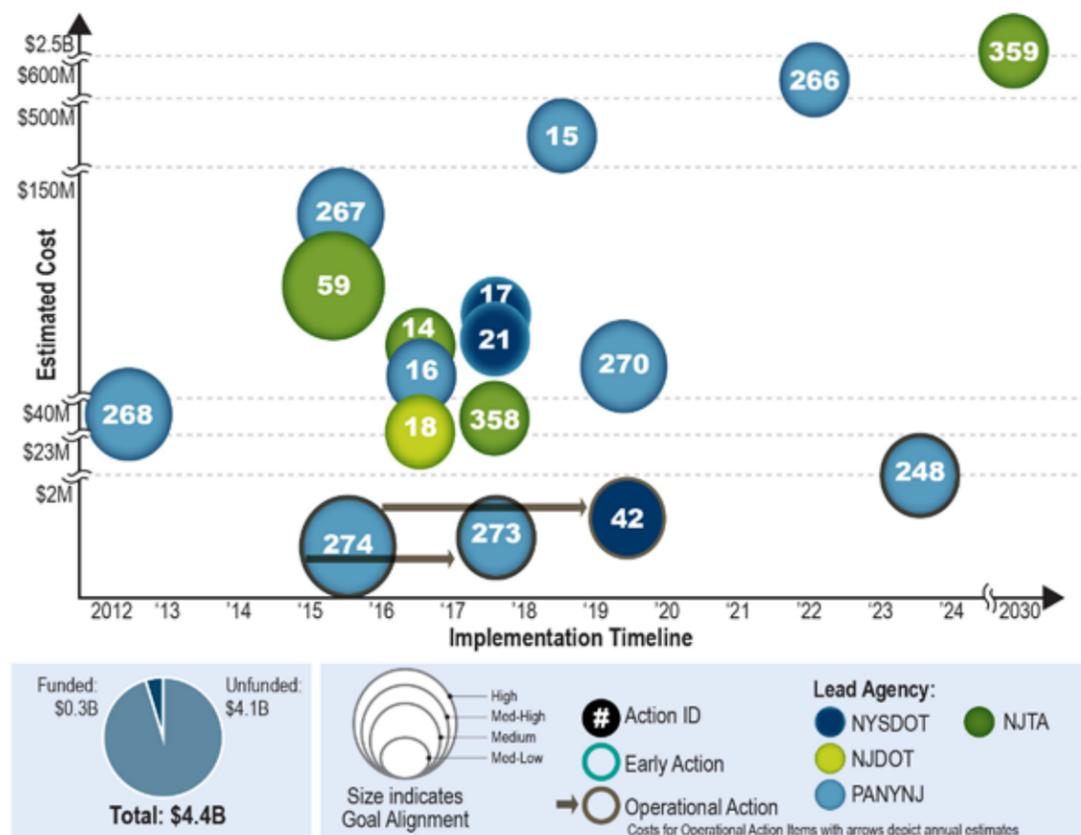


FREIGHT PRESERVATION: PRESERVING ACCESS & FACILITIES FOR ESSENTIAL FREIGHT SERVICES

The Freight Preservation Action Package complements the GATES and Airport Access Action Packages by ensuring that the region maintains enough physical space and infrastructure to effectively support cargo handling and transfer. The Port Authority leads this Action Package in partnership with local redevelopment agencies to promote development of industrial properties that can generate jobs and provide the needed capacity to handle increasing trade. Its implementation begins immediately to minimize further losses to the industrial inventory. A first step is to develop a renewable, jointly-funded program to preserve industrial land through acquisition of threatened parcels and incentivizing redevelopment. Potential sites include the Pilgrim Intermodal Site, GATX, and the Harlem River Yard. Simultaneously, freight opportunity sites will be identified and redeveloped around EWR in coordination with NJTPA as well as expanded air cargo facilities around SWF and JFK.

The Action Package also contains \$1.8 billion of infrastructure projects that improve connections to industrial sites to make redevelopment potential more attractive and to reduce negative impacts to neighboring residential communities. Examples include implementation of the Tremley Point access improvement, a direct highway connection to Hunt's Point, and improvements to the 39th Street BQE exit.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency		System Condition		Safety/Security		Investment	Environment	
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	→								→	
Goal	↗								↗	

Component Actions

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Bold text represents an Early Action

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
20	Ensure access to the region's major distribution centers	●	●	●	●	●	●	
42 ^{1,2}	Remove physical barriers to east-of-Hudson rail service	●	●	●	●	●	●	
248 ¹	Ensure the preservation and protection of freight infrastructure	●	●	●	●	●	●	
249	Preserve and protect rail facilities close to cities and ports	●	●	●	●	●	●	
250	Preserve the Pilgrim Intermodal Site for freight use	●	●	●	●	●	●	
251	Preserve the Harlem River Yard for freight use	●	●	●	●	●	●	
252	Preserve and protect close-in distribution and warehousing facilities	●	●	●	●	●	●	
253	Preserve GATX as a key distribution facility	●	●	●	●	●	●	
254	Assure retention of working waterfront properties	●	●	●	●	●	●	
257	Impose a regulatory review for the conversion of high quality freight assets to other uses	●	●	●	●	●	●	
258	Prioritize and support the redevelopment of brownfield sites	●	●	●	●	●	●	
259	Prioritize and support the redevelopment of vacant/abandoned industrial zoned sites	●	●	●	●	●	●	
261	Identify and preserve expansion opportunities at key freight facilities	●	●	●	●	●	●	
355 ²	Preserve waterfront properties for future marine highway operations	●	●	●	●	●	●	
262	Preserve expansion opportunities at Port Jersey Marine Terminal	●	●	●	●	●	●	
263	Preserve expansion opportunities at Howland Hook Marine Terminal	●	●	●	●	●	●	
264	Preserve expansion opportunities at Oak Point Yard	●	●	●	●	●	●	
265	Advance freight terminal redevelopment	●	●	●	●	●	●	
273 ¹	Develop Freight Opportunity Sites in the vicinity of EWR as identified by NJTPA	●	●	●	●	●	●	
274 ¹	Develop a JFK Air Cargo Village	●	●	●	●	●	●	
269	Advance air cargo redevelopment at JFK	●	●	●	●	●	●	
275	Expand air cargo facilities at SWF	●	●	●	●	●	●	
301	Leverage existing New York State and New Jersey redevelopment initiatives and programs such as Redevelopment Area Bonds (RAB), Redevelopment Area Districts (RAD), warehousing districts, and Payment In Lieu of Taxes (PILOT) to encourage development along the Core Network	●	●	●	●	●	●	
Infrastructure Actions								
14 ²	Access to ports: NJ Turnpike Extension, Rehabilitation (Int 14 to 14-A)	●	●	●	●	●	●	
15 ²	Access to ports: North Avenue improvements	●	●	●	●	●	●	
16 ²	Access to ports: SI Expressway and Goethals Bridge direct access to NYCT	●	●	●	●	●	●	
17 ²	Access to ports: 39th Street BQE Exit	●	●	●	●	●	●	
18 ²	Access to ports: Truck-only interchange between NJ Turnpike and Port Newark	●	●	●	●	●	●	
21 ²	Access to distribution center: Bruckner/Hunt's Point ramp	●	●	●	●	●	●	
59 ²	Implement the Tremley Point access improvement to Exit 12	●	●	●	●	●	●	
266 ²	Advance marine terminal redevelopment at Howland Hook	●	●	●	●	●	●	
267 ²	Advance marine terminal redevelopment at Port Jersey	●	●	●	●	●	●	
268 ²	Advance marine terminal redevelopment at Port Newark	●	●	●	●	●	●	
270	Advance rail redevelopment of Oak Island onto the Raff property	●	●	●	●	●	●	
358 ²	Access to ports: NJ Turnpike Extension, Managed Lanes (Int 14 to 14-C)	●	●	●	●	●	●	
359 ²	Access to ports: NJ Turnpike Extension, Capacity Addition (Int 14 to 14-A)	●	●	●	●	●	●	

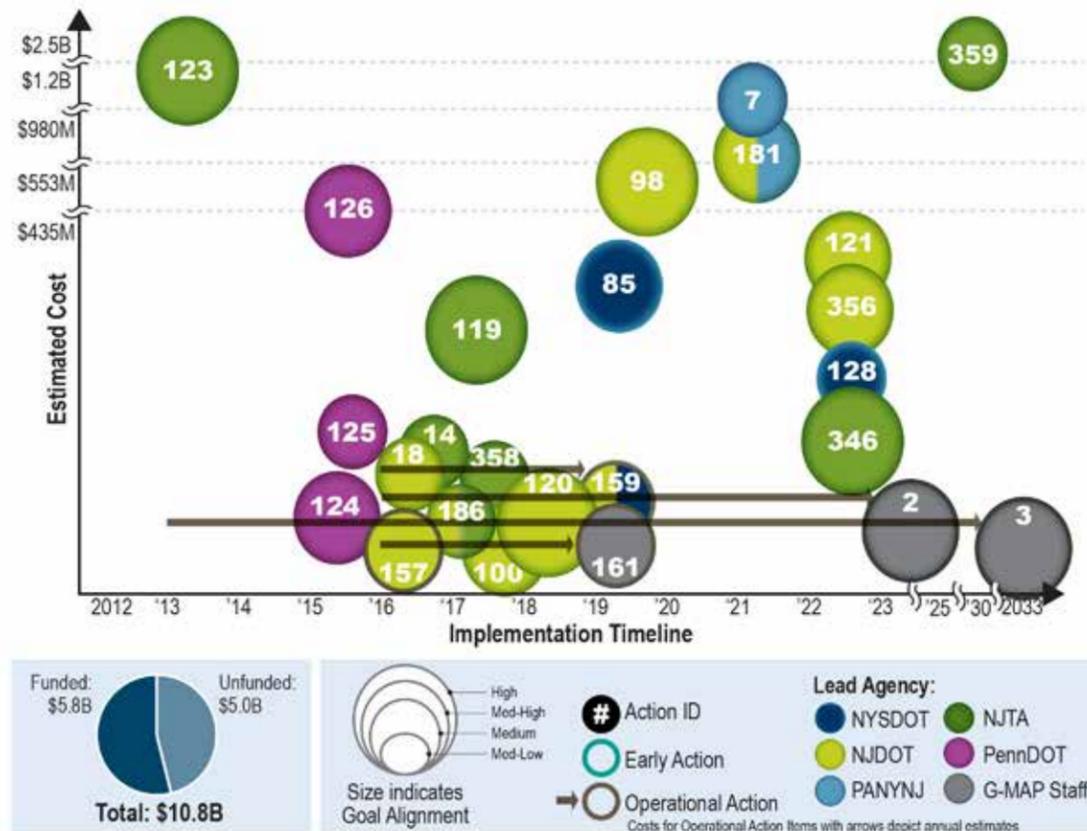


I-95 CORRIDOR: SERVING THE NORTHEAST MEGAREGION

I-95 is the north-south spine of the region's ground transportation network, encompassing or connecting much of its primary infrastructure. The I-95 Corridor Action Package is the largest Action Package, featuring \$8 billion in improvements extending over the next 10 years. Its operational Actions address bottleneck alleviation and coordination of investments, while also incorporating aspects of technology deployment and regulatory harmonization for effective operational management. NJDOT and NYSDOT provide joint leadership of this Action Package, in partnership with the Port Authority and other regional agencies.

\$6 billion of the Action Package's infrastructure projects are funded, including the New Jersey Turnpike widening and other efforts like the "Missing Moves" connection that will be conducted throughout the decade. A variety of smaller, but essential, interchange projects are also spread over the same period, while rehabilitation of the crucial and heavily traveled Cross-Bronx Expressway stands as a challenge after 2020.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency		System Condition		Safety/Security		Investment	Environment	
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↗	↗	↘		↗	↗	↗	↗	↗	
Goal	↗	↘	↗		↗	↘	↘	↗	↗	

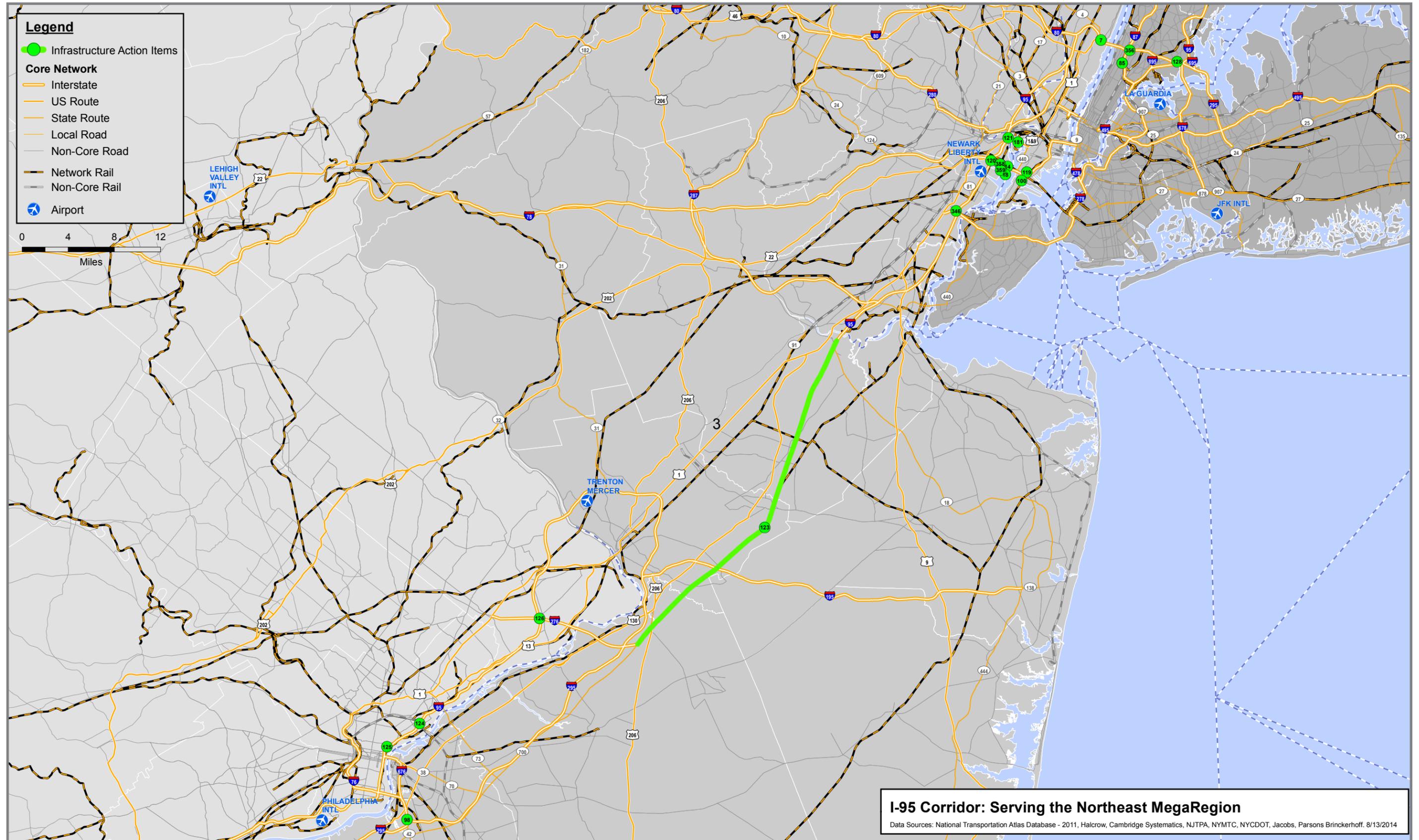
Component Actions

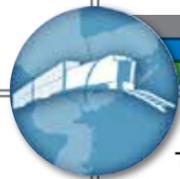
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Bold text represents an Early Action

Legend: High (Green), Med (Orange), Med-High (Light Green), Med-Low (Light Orange), Low (Yellow)

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
3 ^{1,2}	Coordinate improvements to sections of the Core Network in order to minimize the operational impact on the overall system	●	●	●	●	●	●	
2 ^{1,2}	Improve operations on key segments of the Core Network (SIE, Cross Bronx, I-95, etc.)	●	●	●	●	●	●	
84 ²	Address highway bottlenecks to, from, and through the region	●	●	●	●	●	●	
87 ²	Implement the FHWA Localized Bottleneck Reduction (LBR) Program	●	●	●	●	●	●	
134 ²	Provide access to industry-standard 53-foot trailers between NY, NJ, and the rest of the national highway network	●	●	●	●	●	●	
136 ²	Expand the NYC 53-foot trailer through-route by adding the Cross Bronx Expressway (I-95) between the George Washington Bridge and I-695	●	●	●	●	●	●	
146 ²	Identify alternative routing elements of the Core Network to help alleviate system disruptions	●	●	●	●	●	●	
157 ^{1,2}	Explore extending truck access on the northern end of the Garden State Parkway in New Jersey	●	●	●	●	●	●	
160 ²	Use technology to monitor truck traffic flows along key freight corridors and known bottlenecks	●	●	●	●	●	●	
161 ²	Work with TRANSCOM to ensure accurate network performance data is disseminated to the public and private sectors	●	●	●	●	●	●	
162 ²	Develop traffic information services targeted towards commercial vehicles, including information by route, time of day, and carrier operation	●	●	●	●	●	●	
159 ^{1,2}	Develop and implement freight ITS technologies	●	●	●	●	●	●	
165 ²	Increase truck trip time predictability through dynamic routing information and traffic control measures along key corridors	●	●	●	●	●	●	
167 ²	Provide dynamic alternate routing information on key transportation corridors and bottlenecks, such as the I-95 corridor	●	●	●	●	●	●	
186 ¹	Develop or expand truck parking and rest stops regionally	●	●	●	●	●	●	
196 ²	Systematically collect and analyze general and truck traffic flows and conditions along major truck routes	●	●	●	●	●	●	
198 ²	Develop and publish freight route performance data	●	●	●	●	●	●	
350^{1,2}	Designate an "I-95 Virtual Freight Corridor" that integrates ITS components and shared enforcement	●	●	●	●	●	●	
355 ²	Preserve waterfront properties for future marine highway operations	●	●	●	●	●	●	
Infrastructure Actions								
7 ²	Complete cable and steel replacements and rehabilitation work on the George Washington Bridge (GWB)	●	●	●	●	●	●	
14 ²	Access to ports: NJ Turnpike Extension, Rehabilitation (Int 14 to 14-A)	●	●	●	●	●	●	
18 ²	Access to ports: Truck-only interchange between NJ Turnpike and Port Newark	●	●	●	●	●	●	
85	Rehabilitate the Major Deegan/Cross Bronx Expressway (I-87/I-95) interchange	●	●	●	●	●	●	
98	I-295/NJ 42/I-76 Missing Moves Direct Connection	●	●	●	●	●	●	
100	NJTPK at NJ 440 overall interchange improvements	●	●	●	●	●	●	
119 ²	NJTPK Interchange 14A improvements	●	●	●	●	●	●	
120 ²	NJTPK Interchange 14 improvements	●	●	●	●	●	●	
121 ²	Passaic new crossing and NJTPK Exit 15E Interchange improvements	●	●	●	●	●	●	
123	NJTPK 6-9 widening	●	●	●	●	●	●	
124	I-95 at Betsy Ross Interchange improvements	●	●	●	●	●	●	
125	I-95 at Girard Avenue Interchange improvements	●	●	●	●	●	●	
126	I-95 at PA Turnpike Interchange improvements	●	●	●	●	●	●	
128	Rehabilitate the Cross-Bronx Expressway	●	●	●	●	●	●	
181 ²	Complete Portway project	●	●	●	●	●	●	
346 ²	NJTPK Interchange 13	●	●	●	●	●	●	
356	Implement the Cross Bronx Expressway Connector Road System	●	●	●	●	●	●	
358 ²	Access to ports: NJ Turnpike Extension, Managed Lanes (Int 14 to 14-C)	●	●	●	●	●	●	
359 ²	Access to ports: NJ Turnpike Extension, Capacity Addition (Int 14 to 14-A)	●	●	●	●	●	●	

Action Package Map



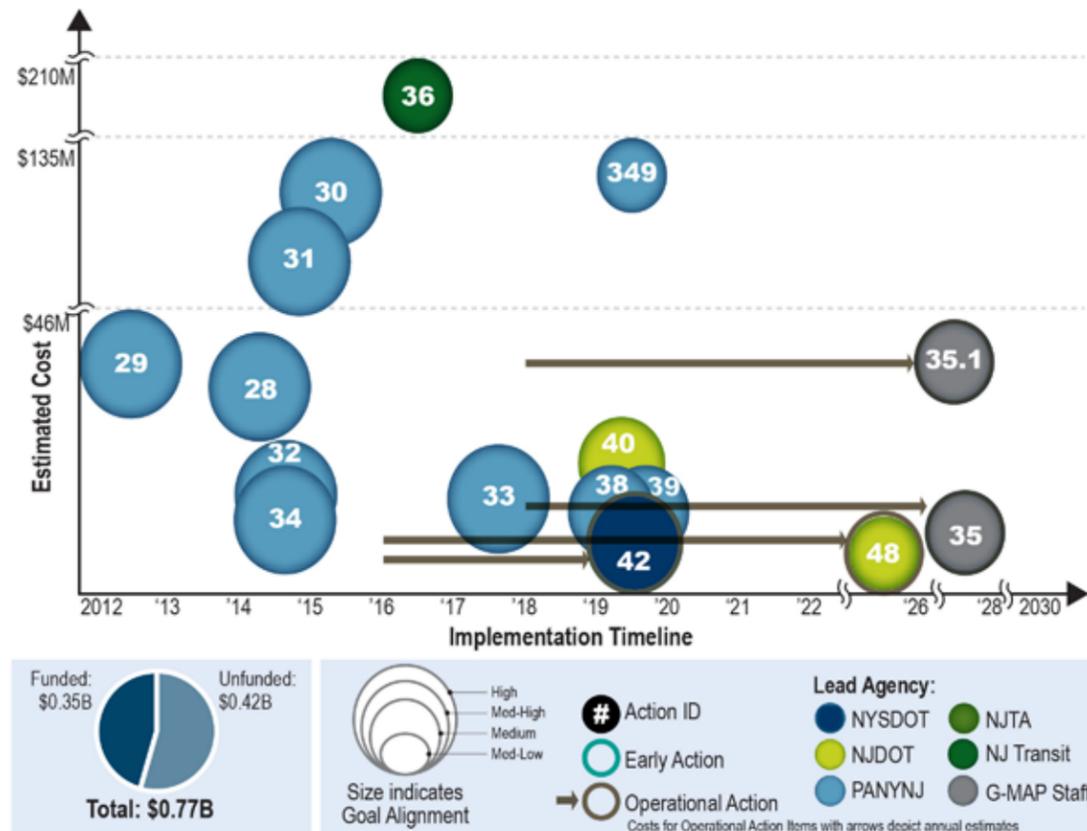


MULTIMODAL RAIL: REALIZING THE RAIL RENAISSANCE

The Multimodal Rail Action Package enhances and expands the region's rail system and improves its connectivity. The Action Package will enable cargo to move quickly and cost-effectively to and from locations nationwide, and supports the additional capacity needed to accommodate growing trade. The Port Authority leads this \$1.6 billion Action Package in coordination with NYSDOT, NJDOT, and the rail lines.

Crucial intermodal projects at Port Newark, Port Jersey, and the Cross Harbor float facilities connecting Brooklyn and Greenville Yards are completed in the first phase of the Action Package's implementation. These initial Actions support the diversion of cargo off of the region's congested roadway network while spurring economic development. Implementation also focuses on identifying and delivering a new program of rail improvements, one which includes bringing regional consistency with national rail standards to ensure national competitiveness and retain businesses. This objective starts with an Early Action to permit 286k rail service on the Bergen and Main Lines in New Jersey. As a second phase of implementation, the Partner Agencies may establish an annually renewable funding pool dedicated to strengthening rail connections to key distribution centers, thereby reducing adverse impacts to passenger rail and removing key bottlenecks along the major rail corridors.

Implementation Snapshot



Package Performance

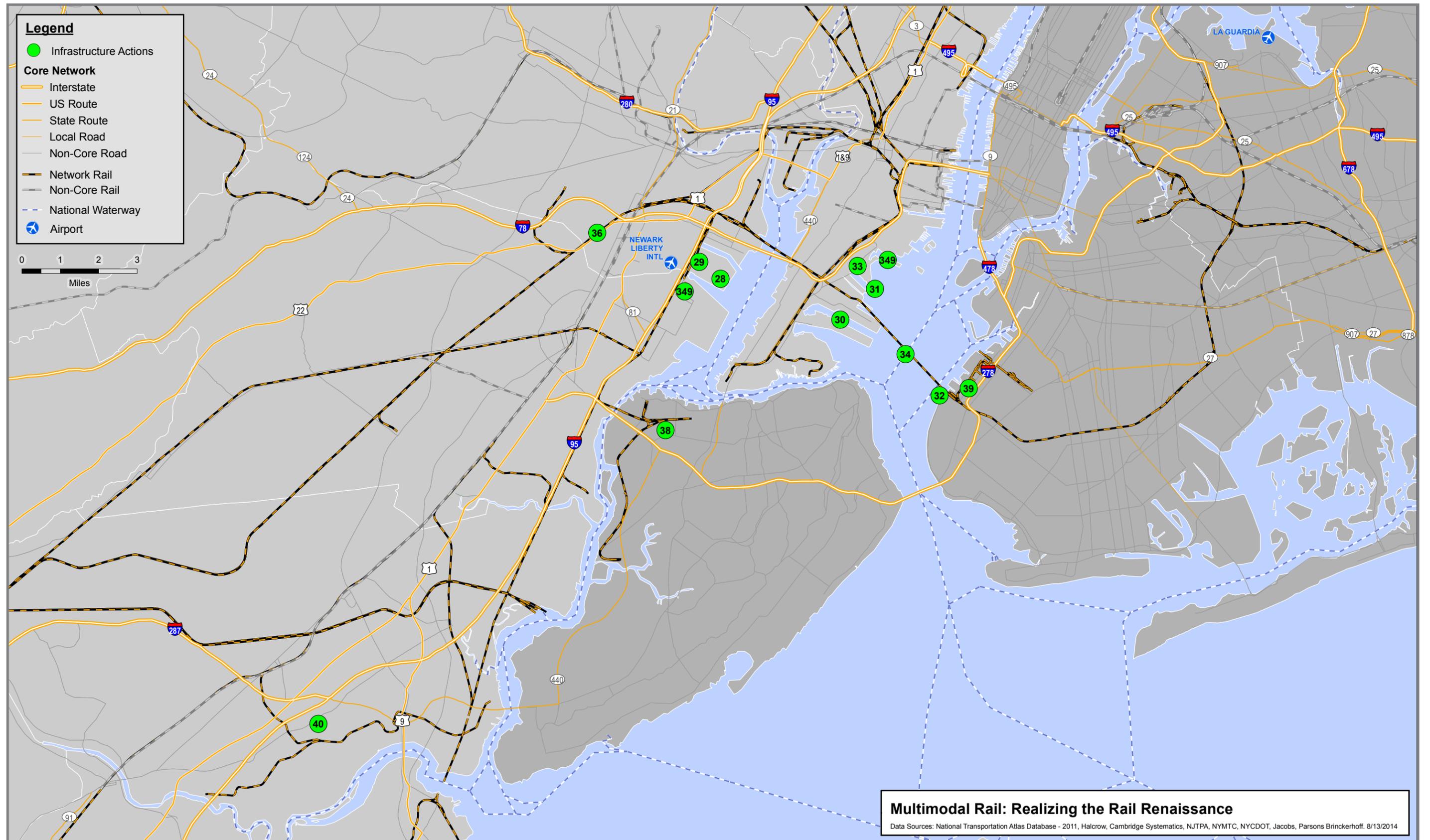
	Freight Demand	System Efficiency			System Condition	Safety/Security	Investment	Environment
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Rail network condition	Rail Network capacity	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↗				→	→	→	
Goal	↗				↗	↘	↗	

Component Actions

Notes:
¹Operational Actions with identified costs are shown in the Implementation Snapshot
²Denotes an Action that is common to multiple Action Packages
³This is a program of multiple related projects
 Grouped Actions share a common agency lead and common budget/funding pool
Bold text represents an Early Action

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
27 ²	Implement rail and intermodal improvements at Port Authority facilities	●	●	●	●	●	●	
35 ¹	Reduce conflict between passenger and freight trains	●	●	●	●	●	●	
37 ²	Use rail connections to enhance access to key distribution points	●	●	●	●	●	●	
35.1 ¹	Create an annually renewable funding pool for rail projects to fund necessary infrastructure improvement projects	●	●	●	●	●	●	
47 ¹	Improve service and efficiency at rail corridors through operational improvements	●	●	●	●	●	●	
44	Ensure TOFC clearance on the region's rail corridors and appropriate lines	●	●	●	●	●	●	
45²	Achieve consistency with 286k national rail standards along major rail corridors and appropriate lines across the region	●	●	●	●	●	●	
42 ²	Remove physical barriers to east-of-Hudson rail service	●	●	●	●	●	●	
46	Improve service and efficiency at intermodal terminals through operational improvements	●	●	●	●	●	●	
48 ¹	Eliminate grade crossings, where appropriate	●	●	●	●	●	●	
146 ²	Identify alternative routing elements of the Core Network to help alleviate system disruptions	●	●	●	●	●	●	
247	Pursue buyouts or leasing of track rights from the private sector to improve rail network fluidity and pricing	●	●	●	●	●	●	
326 ²	Increase the use of Genset locomotives to mitigate noise and air emission	●	●	●	●	●	●	
Infrastructure Actions								
28 ²	Implement rail and intermodal improvements at the Corbin Street yard	●	●	●	●	●	●	
29 ²	Implement rail and intermodal improvements at ExpressRail Newark	●	●	●	●	●	●	
30 ²	Implement rail and intermodal improvements at ExpressRail Port Jersey	●	●	●	●	●	●	
31	Implement rail and intermodal improvements of Cross Harbor float facilities at Greenville Yards	●	●	●	●	●	●	
32	Implement rail and intermodal improvements of Cross Harbor float facilities at 65th Street	●	●	●	●	●	●	
33	Implement the MSW barge transfer facility at Greenville Yards	●	●	●	●	●	●	
34	Enhance Cross Harbor float barges	●	●	●	●	●	●	
36	Add third track to the Lehigh Line in New Jersey (NK to Aldene)	●	●	●	●	●	●	
38 ²	Implement Staten Island Railroad improvements including Arlington Yard and a rail track extension eastward from New York Container Terminal	●	●	●	●	●	●	
39	Improve rail connections to the 65th Street yard and the South Brooklyn Waterfront	●	●	●	●	●	●	
40	Provide rail access to Raritan Center from Chemical Coast	●	●	●	●	●	●	
349	Implement Conrail Mainline Connectors	●	●	●	●	●	●	

Action Package Map



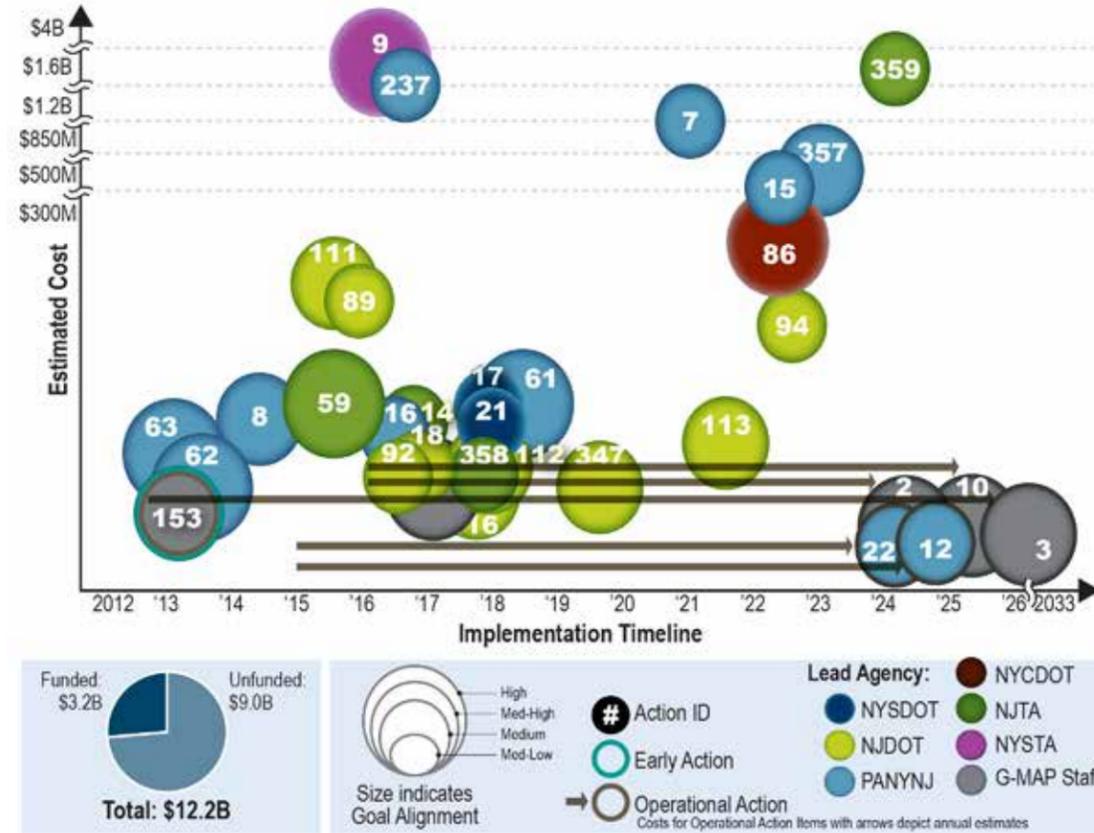


INSIDE I-287: THE FIRST & LAST MILES

Inside I-287 details a 10-year, \$9 billion package of improvements to allow for cheaper and more efficient shipping within the region. NJDOT and NYSDOT jointly lead this Action Package's implementation in coordination with the Port Authority and the New Jersey Turnpike Authority. The Lincoln Tunnel Helix Reconstruction, New Jersey Turnpike Extension from Exit 14 to 14-A, and the Port Street improvement projects will be prioritized throughout the next five years. Real-time messaging and expanding the off-peak delivery pilot program will also be instrumental to roll-out quickly to help truck drivers plan their routes and increase on-time deliveries. Additional projects this Action Package will implement in later years, pending funding, include rehabilitating the Triple-Cantilevered Section of the BQE/I-278 and creating a direct connection between Hunt's Point and the Bruckner Expressway.

This Action Package also focuses on operational improvements on key segments along the Core Network while benefiting from the Freight Technology and Off-Peak Action Packages. The Partner Agencies' ability to secure and prioritize funds to deliver crucial, long-delayed regional capital projects will be a key challenge and focus of Inside I-287.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency			System Condition		Safety/Security		Investment	Environment
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↗	↘	↘	↘	↘	↘	↘	↘	↘	↘
Goal	↗	↘	↘	↘	↘	↘	↘	↘	↘	↘

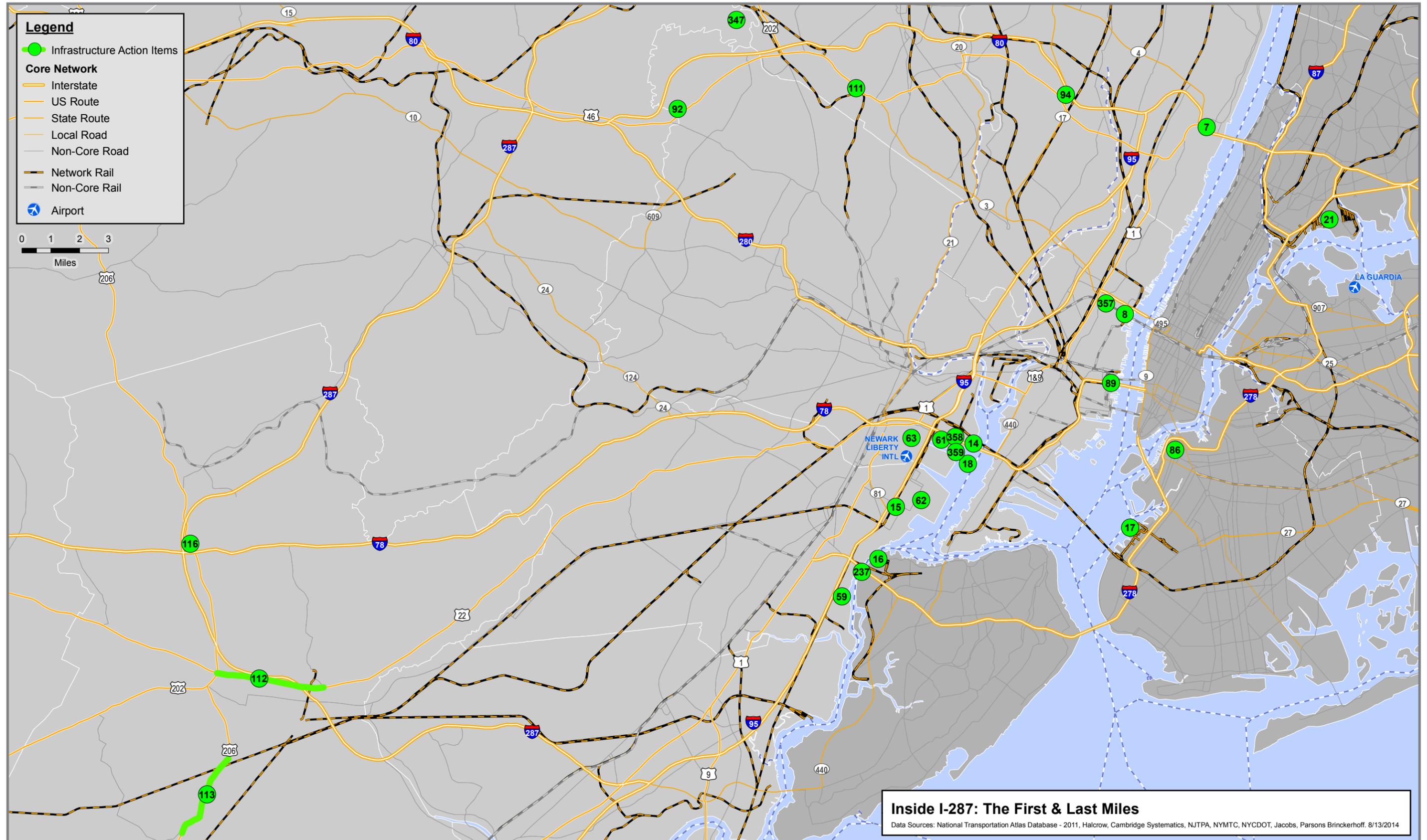
Component Actions

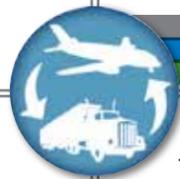
Notes:
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Bold text represents an Early Action

Legend: High (Green), Med (Orange), Med-High (Light Green), Med-Low (Light Orange), Low (Yellow)

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
2 ^{1,2}	Improve operations on key segments of the Core Network (SIE, Cross Bronx, I-95, etc.)	●	●	●	●	●	●	
84 ²	Address highway bottlenecks to, from, and through the region	●	●	●	●	●	●	
87 ²	Implement the FHWA Localized Bottleneck Reduction (LBR) Program	●	●	●	●	●	●	
3 ^{1,2}	Coordinate improvements to sections of the Core Network in order to minimize the operational impact on the overall system	●	●	●	●	●	●	
12 ^{1,2}	Ensure access to the region's marine cargo facilities	●	●	●	●	●	●	
10 ^{1,2}	Identify cross-town and regional priority routes for shippers	●	●	●	●	●	●	
20	Ensure access to the region's major distribution centers	●	●	●	●	●	●	
22 ^{1,2}	Ensure access to the region's air cargo facilities	●	●	●	●	●	●	
57 ^{1,2}	Create links between terminals, production and distribution facilities, and the highway network	●	●	●	●	●	●	
60 ²	Improve the road network inside marine ports	●	●	●	●	●	●	
131¹	Consolidate and standardize regulations regarding operations for oversize/overweight vehicles	●	●	●	●	●	●	
132²	Streamline permitting for oversize/overweight vehicles, including coordinating existing agency permitting web portals	●	●	●	●	●	●	
134 ²	Provide access to industry-standard 53-foot trailers between NY, NJ, and the rest of the national highway network	●	●	●	●	●	●	
137 ²	Allow 53-foot trailers to access major distribution centers 1 mile from the NYC 53-foot trailers through-route	●	●	●	●	●	●	
146 ²	Identify alternative routing elements of the Core Network to help alleviate system disruptions	●	●	●	●	●	●	
153^{1,2}	Expand NYCDOT's off-peak delivery program regionally	●	●	●	●	●	●	
164 ²	Enhance truck route and traffic information coverage by collaborating with freight and navigation companies	●	●	●	●	●	●	
165 ²	Increase truck trip time predictability through dynamic routing information and traffic control measures along key corridors	●	●	●	●	●	●	
198 ²	Develop and publish freight route performance data	●	●	●	●	●	●	
Infrastructure Actions								
7 ²	Complete rehabilitation work on the George Washington Bridge (GWB)	●	●	●	●	●	●	
8	Complete the Lincoln Tunnel Helix Rehabilitation	●	●	●	●	●	●	
9	Complete the Tappan Zee Bridge Replacement	●	●	●	●	●	●	
14 ²	Access to ports: NJ Turnpike Extension, Rehabilitation (Int 14 to 14-A)	●	●	●	●	●	●	
15 ²	Access to ports: North Avenue improvements	●	●	●	●	●	●	
16 ²	Access to ports: SI Expressway and Goethals Bridge direct access to NYCT	●	●	●	●	●	●	
17 ²	Access to ports: 39th Street BQE Exit	●	●	●	●	●	●	
18 ²	Access to ports: Truck-only interchange between NJ Turnpike and Port Newark	●	●	●	●	●	●	
21 ²	Access to distribution center: Bruckner/Hunt's Point ramp	●	●	●	●	●	●	
59 ²	Implement the Tremley Point access improvement to Exit 12	●	●	●	●	●	●	
61 ²	Implement the Port Street improvement project	●	●	●	●	●	●	
62 ²	Complete the McLester Street widening at Port Newark/Elizabeth	●	●	●	●	●	●	
63 ²	Complete the Brewster Road project	●	●	●	●	●	●	
86 ²	Rehabilitate the Triple-Cantilevered Section of the BQE/I-278	●	●	●	●	●	●	
89	Route 139 Hoboken Viaduct - Route 139 Contract 3	●	●	●	●	●	●	
92	Route 46 Widening - Passaic Avenue to Willowbrook Mall	●	●	●	●	●	●	
94	NJ 17 Widening - Williams Avenue to I-80	●	●	●	●	●	●	
111 ²	NJ 3/US 46 Overall interchange improvements	●	●	●	●	●	●	
112	Route 22 Sustainable Corridor (MP 33.88 - 37.14) Mainline improvements	●	●	●	●	●	●	
113	US 206 MP 66.36 - 68.6 widening	●	●	●	●	●	●	
116	I-287/I-78/US 202/206 overall interchange improvements	●	●	●	●	●	●	
237 ²	Replace the Goethals Bridge utilizing innovative financing techniques	●	●	●	●	●	●	
347	I-80/US-46/NJ 23 Interchange improvements - "Spaghetti Bowl" Program	●	●	●	●	●	●	
357	Lincoln Tunnel Helix Replacement	●	●	●	●	●	●	
358 ²	Access to ports: NJ Turnpike Extension, Managed Lanes (Int 14 to 14-C)	●	●	●	●	●	●	
359 ²	Access to ports: NJ Turnpike Extension, Capacity Addition (Int 14 to 14-A)	●	●	●	●	●	●	

Action Package Map



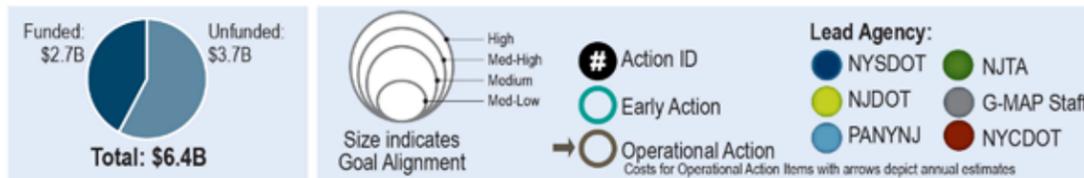
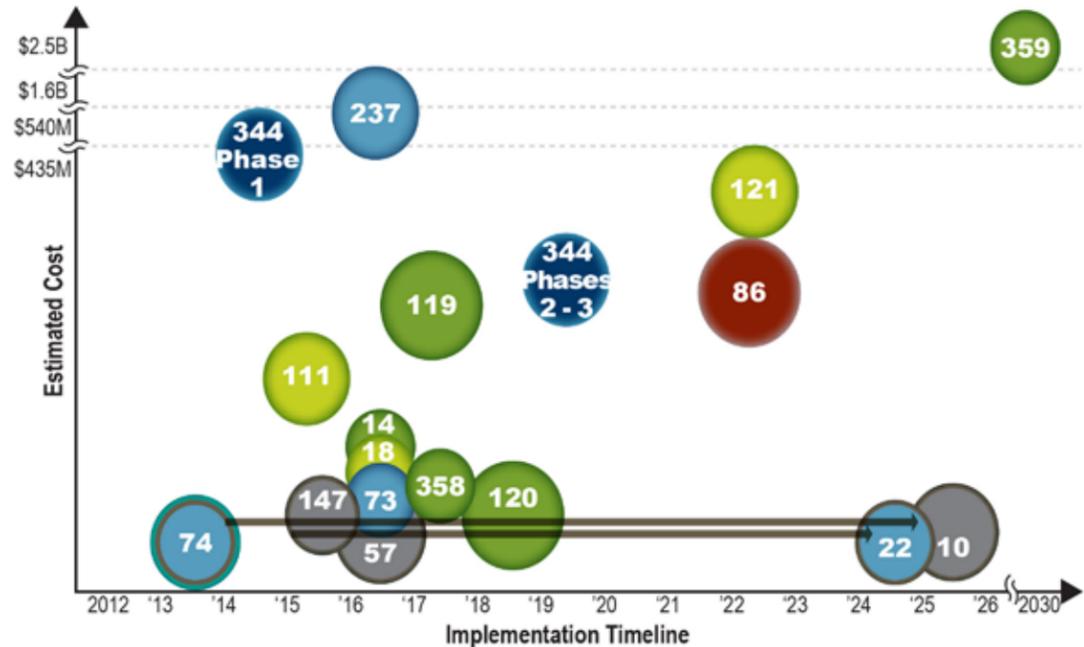


AIRPORT ACCESS: DELIVERING PRIORITY TRANSPORTATION

The Airport Access Action Package integrates the region's air cargo centers into its ground transportation system so that an interconnected air cargo transportation system can better serve its industries and communities. Complementary to GATES, the Action Packages share key bridge and roadway improvements and forge links between JFK, EWR, and SWF to enable the region's air assets to function as one. The Action Package, led by the Port Authority with coordinated support of NYSDOT and NJDOT, incorporates \$3.8 billion in investment and programs reaching into the next decade.

Two Early Actions launch this Action Package. The first is developing a select trucking service that jump starts routine usage of SWF via efficient connection to the region's regional generators of air cargo – largely JFK and EWR. The second is allowing industry standard 53-foot trailers to have legal access to essential routes between JFK and the region. These Early Actions lead into a sustained program from mid-decade onward to improve transportation to the seats of business, sharpen it with information technology, and draw new development with the attraction of immediate service to the Northeast, the nation, and the world.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency		System Condition		Safety/Security		Investment	Environment	
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↘	↗	↘	↗	↗	↗	↗	↗	↗	
Goal	↗	↘	↗	↘	↗	↘	↘	↗	↗	

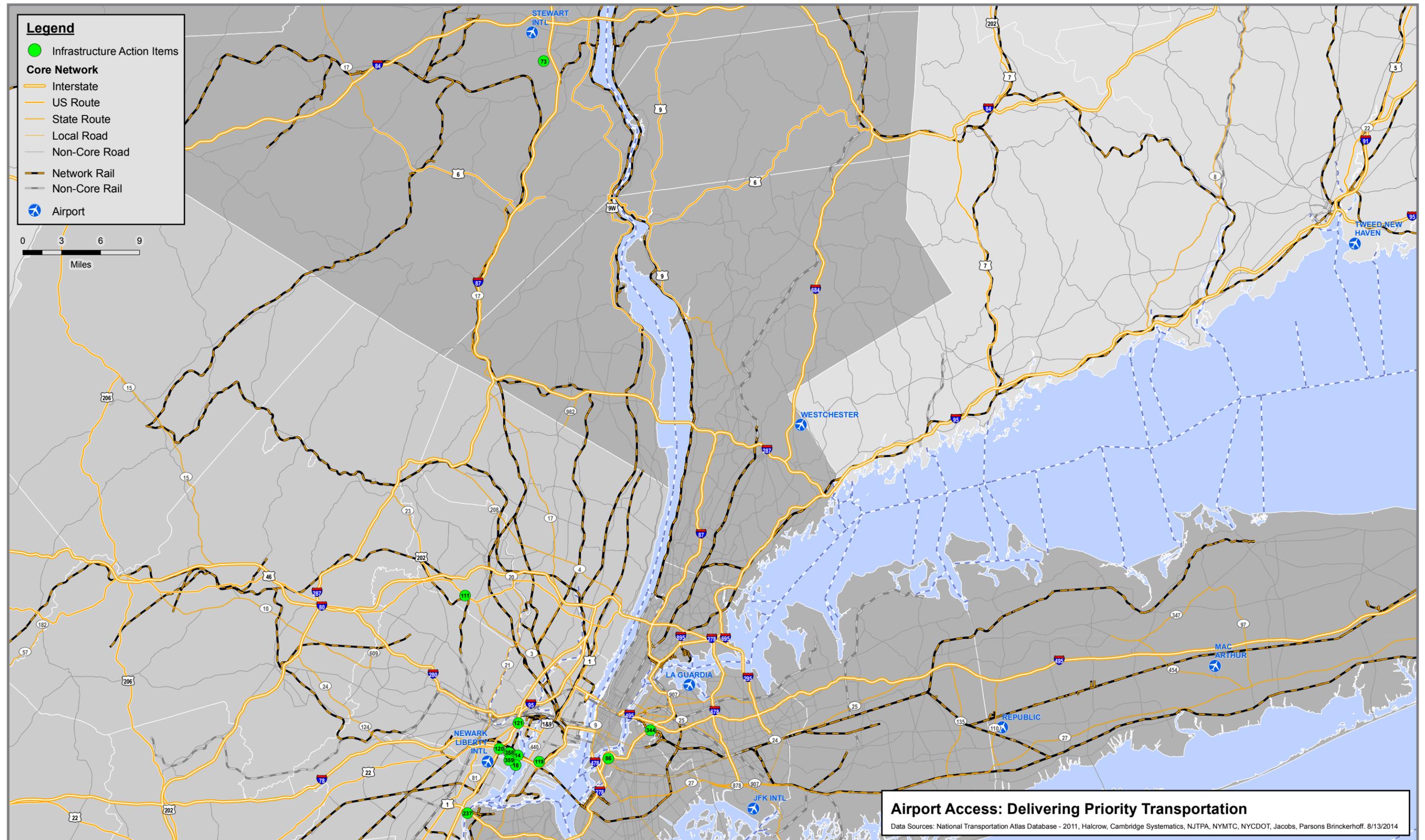
Component Actions

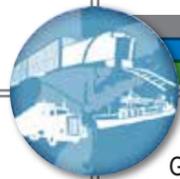
Notes:

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- Bold text represents an Early Action**

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
4	Coordinate Verrazano Bridge projects with Staten Island Expressway operations	🟡	🟢	🟡	🟡	🟡	🟡	🟡
5	Coordinate planned improvements to the Kosciuszko Bridge with the Port Authority and other agencies	🟡	🟢	🟡	🟡	🟡	🟡	🟡
10 ^{1,2}	Identify cross-town and regional priority routes for shippers	🟡	🟡	🟢	🟡	🟡	🟡	🟡
22 ^{1,2}	Ensure access to the region's air cargo facilities	🟡	🟡	🟡	🟡	🟡	🟡	🟡
57 ²	Create links between terminals, production and distribution facilities, and the highway network	🟡	🟡	🟡	🟡	🟡	🟡	🟡
74¹	Create consolidated trucking service to JFK and EWR from SWF	🟡	🟡				🟡	🟡
134 ²	Provide access to industry-standard 53-foot trailers between NY, NJ, and the rest of the national highway network	🟡	🟡	🟡	🟡		🟡	🟡
135²	Connect JFK to the existing NYC 53-foot trailer through-route by adding the Van Wyck Expressway (VWE, I-678) and the Long Island Expressway (I-495) between I-295 and the VWE	🟡	🟡	🟡	🟡		🟡	🟡
136 ²	Expand the NYC 53-foot trailer through-route by adding the Cross Bronx Expressway (I-95) between the George Washington Bridge and I-695	🟡	🟡	🟡	🟡		🟡	🟡
137 ²	Allow 53-foot trailers to access major distribution centers 1 mile from the NYC 53-foot trailer through-route	🟡	🟡	🟡	🟡		🟡	🟡
146 ²	Identify alternative routing elements of the Core Network to help alleviate system disruptions	🟡	🟡	🟡	🟡		🟡	🟡
147 ²	Develop a regional off-peak goods movement pilot program	🟡	🟡	🟡	🟡		🟡	🟡
163 ³	Enhance the coverage and accuracy of truck route and traffic information by collaborating with freight and navigation companies to include their knowledge of local truck restrictions and use regulations	🟡	🟢	🟢	🟡		🟡	🟡
164 ²	Enhance truck route and traffic information coverage by collaborating with freight and navigation companies	🟡	🟢	🟢	🟡		🟡	🟡
168 ²	Utilize FRATIS (a federal open-source program) applications to support improved truck operations and exception procedures	🟡	🟡	🟢			🟡	🟡
165 ²	Increase truck trip time predictability through dynamic routing information and traffic control measures along key corridors	🟡	🟡	🟢	🟡		🟡	🟡
167 ²	Provide dynamic alternate routing information on key transportation corridors and bottlenecks, such as the I-95 corridor	🟡	🟢	🟢	🟡		🟡	🟡
Infrastructure Actions								
14 ²	Access to ports: NJ Turnpike Extension, Rehabilitation (Int 14 to 14-A)	🟡	🟡	🟡	🟢		🟡	🟡
18 ²	Access to ports: Truck-only interchange between NJ Turnpike and Port Newark	🟡	🟡	🟡	🟢		🟡	🟡
73	Create an SWF Air Cargo drop-off center	🟡	🟡	🟡			🟡	🟡
86 ²	Rehabilitate the Triple-Cantilevered Section of the BQE/I-278	🟢	🟡	🟡	🟢		🟡	🟡
111 ²	NJ 3/US 46 Overall interchange improvements	🟡	🟡	🟡	🟢		🟡	🟡
119 ²	NJTPK Interchange 14A improvements	🟢	🟢	🟡	🟢		🟡	🟡
120 ²	NJTPK Interchange 14 improvements	🟢	🟢	🟡	🟢		🟡	🟡
121 ²	Passiac new crossing and NJTPK Exit 15E Interchange improvements	🟡	🟢	🟡	🟢		🟡	🟡
237 ²	Replace the Goethals Bridge utilizing innovative financing techniques	🟡	🟡	🟡	🟢		🟡	🟡
344 ²	Kosciuszko Bridge Replacement	🟡	🟡	🟡	🟢		🟡	🟡
358 ²	Access to ports: NJ Turnpike Extension, Managed Lanes (Int 14 to 14-C)	🟡	🟡	🟡	🟢		🟡	🟡
359 ²	Access to ports: NJ Turnpike Extension, Capacity Addition (Int 14 to 14-A)	🟡	🟡	🟡	🟢		🟡	🟡

Action Package Map



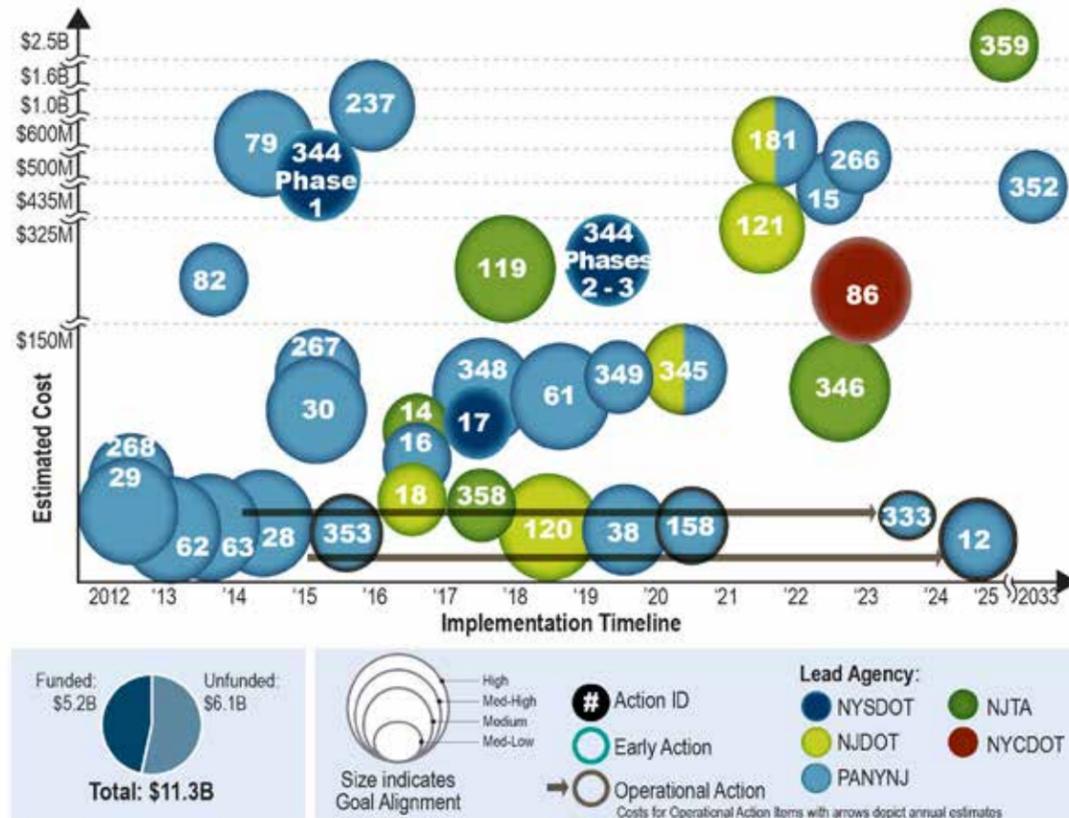


GATES: PROMOTING THE REGION'S GLOBAL GATEWAY

GATES is a decade-long, \$8.6 billion Action Package that emphasizes improvements to the regional shipping network to increase the demand for global trade. Spearheaded by the Port Authority, and in partnership with many of the region's transportation agencies, the Action Package is nearly two-thirds funded with major projects already, or soon to be, underway. Over two dozen separate actions create a joint advance in the performance of the region's system, backed by operational methods to make them greener, wired, and more productive.

GATES has two broad implementation phases. The first, which is largely funded, begins with \$5 billion of major projects to invest in the Bayonne, Goethals, and Kosciuszko bridges, harbor deepening, and the expansion of terminals and rail connections. The second phase, targeted toward the mid- to late-2020s, includes \$3.1 billion in projects that largely improve port access. This phase coincides with the new era of Post-Panamax ships—larger ships that will be accommodated by the expansion of the Panama Canal—which will bring larger volumes of cargo to the region, necessitating an efficient port system so as to not cause delays and backups on the region's roadways. NJDOT and NYSDOT, accompanied by other agencies, will move to the fore of this second phase. Projects programmed in state freight plans, and a number of the large infrastructure projects, may attract partnerships for private funding or opportunities for increased federal funding.

Implementation Snapshot



Package Performance

	Freight Demand	System Efficiency			System Condition		Safety/Security		Investment	Environment
Metric	Freight volume by mode	Travel time in representative freight corridors	Travel time reliability in representative freight corridors	Freight carrier average operating costs	Pavement condition index along representative freight corridors	Structurally deficient bridges along representative freight corridors	Truck-involved fatalities and serious injuries	System redundancy and ready access	Capital investment in regional freight corridors and facilities	GHG emissions
Trend	↗	↗	↘	↗	↘	↘	↘	↘	↘	
Goal	↗	↘	↗	↘	↗	↘	↘	↗	↗	

Component Actions

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Bold text represents an Early Action

ID	Action	Overall	Goals					
			Supply Chain	Governance	Infrastructure	Finance	Land Use	Environment
Operational Actions								
12 ^{1,2}	Ensure access to the region's marine cargo facilities	●	●	●	●	●	●	
19	Ensure sufficient handling capacity at the region's marine cargo facilities	●	●	●	●	●	●	
27 ²	Implement rail and intermodal improvements at Port Authority facilities	●	●	●	●	●	●	
37 ²	Use rail connections to enhance access to key distribution points	●	●	●	●	●	●	
60 ²	Improve the road network inside marine ports	●	●	●	●	●	●	
154 ²	Develop an off-peak deliveries guidebook that outlines safe, secure, and community-sensitive operations, including shipper/receiver credentialing and requisite equipment and facilities	●	●	●	●	●	●	
158 ²	Expand container staging areas outside marine port terminals to facilitate off-peak deliveries and pick-ups	●	●	●	●	●	●	
168 ²	Utilize FRATIS (a federal open-source program) applications to support improved truck operations and exception procedures	●	●	●	●	●	●	
333 ¹	Continue implementation of the Port Authority Clean Air Strategy, including support to natural gas-fueled freight vehicles	●	●	●	●	●	●	
331	Increase Truck Idle Reduction Programs and the availability of idle-free technology	●	●	●	●	●	●	
332	Continue the Port Authority's Green Ports Program	●	●	●	●	●	●	
265	Advance freight terminal redevelopment	●	●	●	●	●	●	
353 ¹	Establish a master plan for land-side supply chain gateway improvements that prescribe routes from port gates to last-mile highway and rail networks that can match available terminal-handling capacity	●	●	●	●	●	●	
355 ²	Preserve waterfront properties for future marine highway operations	●	●	●	●	●	●	
Infrastructure Actions								
14 ²	Access to ports: NJ Turnpike Extension, Rehabilitation (Int 14 to 14-A)	●	●	●	●	●	●	
15 ²	Access to ports: North Avenue improvements	●	●	●	●	●	●	
16 ²	Access to ports: SI Expressway and Goethals Bridge direct access to NYCT	●	●	●	●	●	●	
17 ²	Access to ports: 39th Street BQE Exit	●	●	●	●	●	●	
18 ²	Access to ports: Truck-only interchange between NJ Turnpike and Port Newark	●	●	●	●	●	●	
28 ²	Implement rail and intermodal improvements at the Corbin Street yard	●	●	●	●	●	●	
29 ²	Implement rail and intermodal improvements at ExpressRail Newark	●	●	●	●	●	●	
30 ²	Implement rail and intermodal improvements at ExpressRail Port Jersey	●	●	●	●	●	●	
38 ²	Implement Staten Island Railroad improvements including Arlington Yard and a tail track extension eastward from NYCT	●	●	●	●	●	●	
61 ²	Implement the Port Street improvement project	●	●	●	●	●	●	
62 ²	Complete the McLester Street widening at Port Newark/Elizabeth	●	●	●	●	●	●	
63 ²	Complete Brewster Road project	●	●	●	●	●	●	
79	Raise the deck of the Bayonne Bridge	●	●	●	●	●	●	
82	Complete the New York and New Jersey Harbor Deepening program	●	●	●	●	●	●	
86 ²	Rehabilitate the Triple-Cantilevered Section of the BQE/I-278	●	●	●	●	●	●	
119 ²	NJTPK Interchange 14A improvements	●	●	●	●	●	●	
120 ²	NJTPK Interchange 14 improvements	●	●	●	●	●	●	
121 ^{2,3}	Passaic new crossing and NJTPK Exit 15E Interchange improvements	●	●	●	●	●	●	
181 ^{2,3}	Complete Portway project	●	●	●	●	●	●	
237 ²	Replace the Goethals Bridge utilizing innovative financing techniques	●	●	●	●	●	●	
266 ²	Advance marine terminal redevelopment at Howland Hook	●	●	●	●	●	●	
267 ²	Advance marine terminal redevelopment at Port Jersey	●	●	●	●	●	●	
268 ²	Advance marine terminal redevelopment at Port Newark	●	●	●	●	●	●	
344 ²	Kosciuszko Bridge Replacement	●	●	●	●	●	●	
345	Route 1&9 N/B to I-278 "Missing Link" Direct Connection	●	●	●	●	●	●	
346 ²	NJTPK Interchange 13	●	●	●	●	●	●	
348	Access Improvements - Port Jersey Road Network	●	●	●	●	●	●	
349	Implement Conrail Mainline Connectors	●	●	●	●	●	●	
352	Implement a New York and New Jersey Harbor Channel Routine Maintenance Program	●	●	●	●	●	●	
358 ²	Access to ports: NJ Turnpike Extension, Managed Lanes (Int 14 to 14-C)	●	●	●	●	●	●	
359 ²	Access to ports: NJ Turnpike Extension, Capacity Addition (Int 14 to 14-A)	●	●	●	●	●	●	

Action Package Map

