

HX Corridor

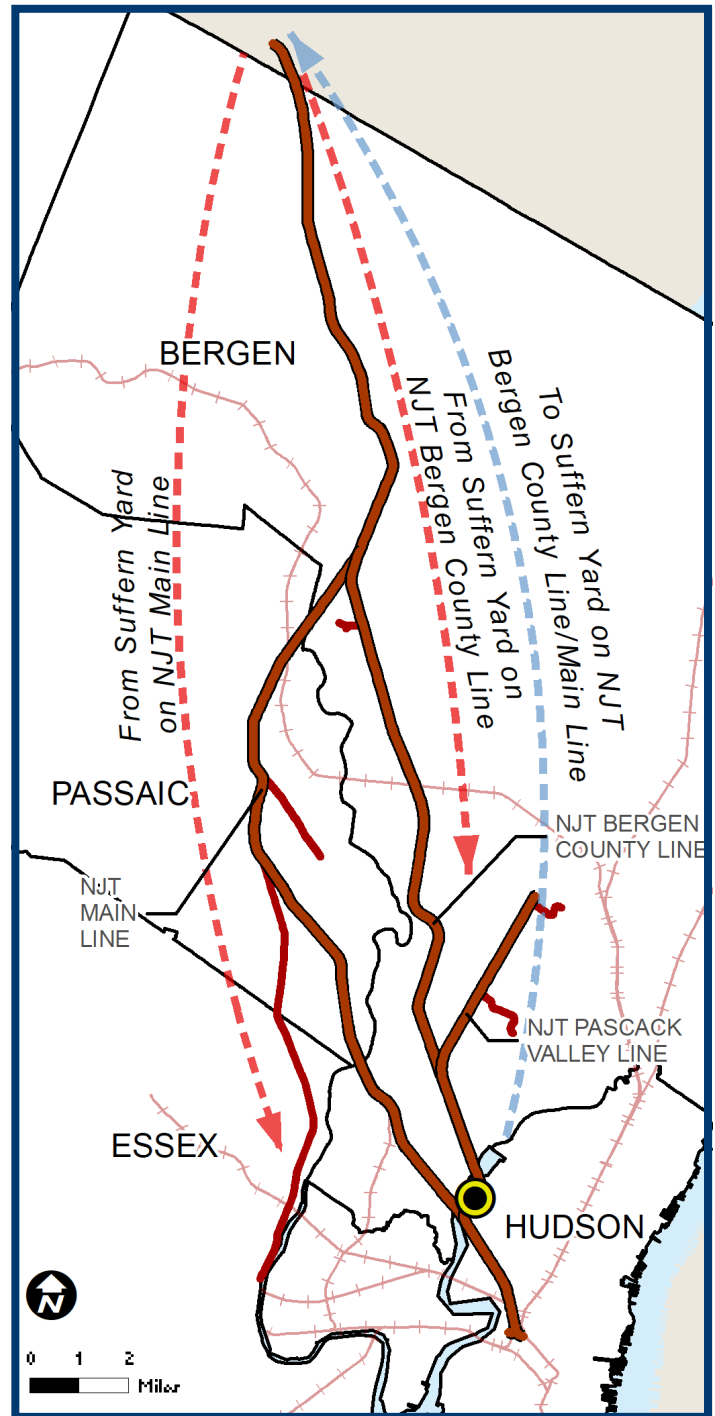
The HX Corridor is made up of 62 miles of railroad lines in northern New Jersey. The corridor includes three NJ TRANSIT commuter lines that also host local rail freight service:

- *NJ TRANSIT's Pascack Valley Line* between East Rutherford and Hackensack, 4.3 miles
- *NJ TRANSIT's Bergen County Line* between Secaucus and Ridgewood, 14.4 miles
- *NJ TRANSIT's Main Line* between Jersey City and Suffern, 29.4 miles

The HX Corridor also includes several connecting freight-only tracks that depend on the NJ TRANSIT lines for access to the national rail network. Local freight service on the HX Corridor is provided by Norfolk Southern Railway. The HX Corridor is located in Bergen County, Hudson County, and Passaic County, but has one connecting freight track that reaches into Essex County. The corridor has a high-density passenger rail operation with more than 150 NJ TRANSIT trains per day. However, it was not built with clearances to accommodate the taller and heavier rail freight cars used today in other locations. The NJTPA's Freight Rail Industrial Opportunity (FRIO) Corridors Program was created to evaluate the barriers to modern rail freight car access on these legacy lines, and the associated economic benefits of alleviating those restrictions. This profile presents the study's findings for the HX Corridor.

How Freight Moves

The HX Corridor's connection to the unrestricted rail network (where physical barriers no longer exist) is located at the HX interlocking in Secaucus on NJ TRANSIT's Bergen County Line. From that location, local freight trains operate directly north and east to serve rail freight customers along the Pascack Valley Line. Other freight trains operate north from the HX interlocking nonstop along the Bergen County Line and Main Line until they reach a railroad yard at Suffern, New York, just across the New Jersey state line. This is the base of operations for the local freight trains that will then make the final delivery of freight cars to rail customers along the Bergen County Line, Main Line, and connecting freight tracks. The FRIO study's evaluation of physical restrictions and economic opportunities



takes into consideration the rail operating patterns in place to deliver freight cars to customers.

Weight Limitations and Clearance Restrictions

Two types of physical restrictions prevent the use of national standard rail freight cars on FRIO corridors: (1) weight restrictions that prevent the use of modern freight cars weighing 286,000 pounds fully loaded and (2) height restrictions that prevent the use of freight cars measuring 17 feet above the top of the running rails. Restrictions can include

bridges, catenary clearances, culverts, and other physical elements on the rights of way. The HX Corridor has 27 of these types of physical restrictions. Estimated costs to alleviate these restrictions range from a low of \$10 million to a high of \$454.6 million.

Modern Rail Car Access: Who Would Benefit?

Known Rail Customers

The existing freight rail customers identified by the FRIO study are involved in manufacturing and distribution activities that contribute to the economic vitality of northern New Jersey. They make and distribute products used by New Jersey residents every day, including food and beverages, home-building supplies, plasticware and household products, recyclable materials, shipping cartons and pizza boxes, and more. Common commodities transported on the HX Corridor include brick, chemicals, food ingredients, food products, lumber, and plastics. The HX Corridor has 33 identified rail freight customers that occupy approximately 175 acres of land.

Industrial Opportunities

Additional properties have been identified that offer significant potential for development or redevelopment as rail-served industrial sites along the corridor. These sites include properties previously served by rail, industrial redevelopment areas, and properties that were already of interest to counties, municipal officials, or developers as favorable locations for industrial activity. It is estimated that properties in the HX Corridor with the potential for development or redevelopment after rail improvements were made total approximately 1,490 acres of land.

Economic Impact of Modern Rail Car Access

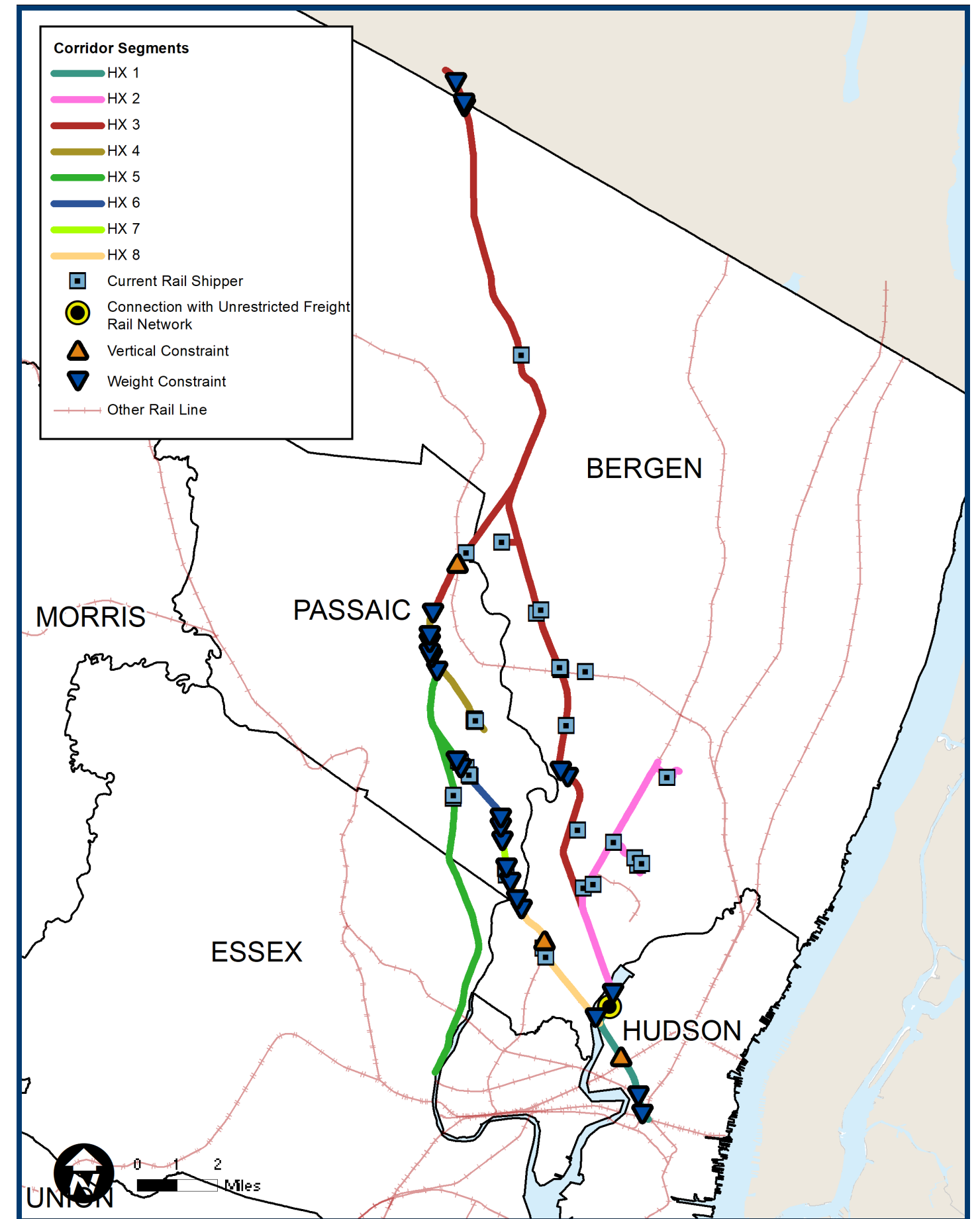
Based on the calculations of land occupied by both existing and potential rail customers, the NJTPA used a Multi-Regional Input-Output model to develop an economic impact assessment of the corridor, considering direct, indirect, and induced benefits that could accrue to municipalities, counties, and the State if the sites were fully developed. These economic measurements include employment effects,

business output and revenue, personal income effects, and the effect of taxes, based on a mix of known industrial activities that occur in the corridor. The maximum potential economic value of new development attributable to alleviating the barriers to modern rail freight car access in the HX Corridor is estimated to be more than \$1.3 billion.

HX Corridor Potential Engineering Solutions and Economic Benefits

Corridor Segment	Restrictions in Corridor Segment	Range of Estimated Improvement Costs by Segment (\$2019 millions)	Cumulative Segment Cost Estimates (\$2019 millions)	Total Area (acres)	Estimated On-Site Jobs	Estimated Annual Tax Revenue (\$2019 millions)
HX 1	3	\$0.2 - \$32.6	\$0.6 - \$162.6	287	3,055	\$228.7
HX 2	1	\$0.4 - \$130.0	\$0.4 - \$130.0	464	5,030	\$377.7
HX 3	6	\$5.8 - \$33.6	\$6.2 - \$163.6	465	5,180	\$365.5
HX 4	5	\$0.3 - \$48.4	\$6.5 - \$212.0	49	540	\$37.7
HX 5	1	\$0.1 - \$1.9	\$6.6 - \$213.9	230	2,450	\$182.0
HX 6	2	\$0.1 - \$29.4	\$6.7 - \$243.2	48	565	\$33.8
HX 7	5	\$0.4 - \$43.2	\$7.1 - \$286.5	64	700	\$51.0
HX 8	4	\$2.8 - \$135.5	\$9.8 - \$422.0	58	630	\$43.4
Total	27	\$10.0 - \$454.6		1,665	18,145	\$1,319.9

HX Corridor Map



About the NJTPA

The North Jersey Transportation Planning Authority (NJTPA) is the federally authorized Metropolitan Planning Organization (MPO) for the 13-county northern New Jersey region, home to 6.7 million people. It evaluates and approves transportation improvement projects, provides a forum for cooperative transportation planning, sponsors and conducts studies, assists county and city planning agencies and monitors compliance with air quality goals. The NJTPA Board includes 15 local elected officials representing 13 counties—Bergen, Essex, Hudson,

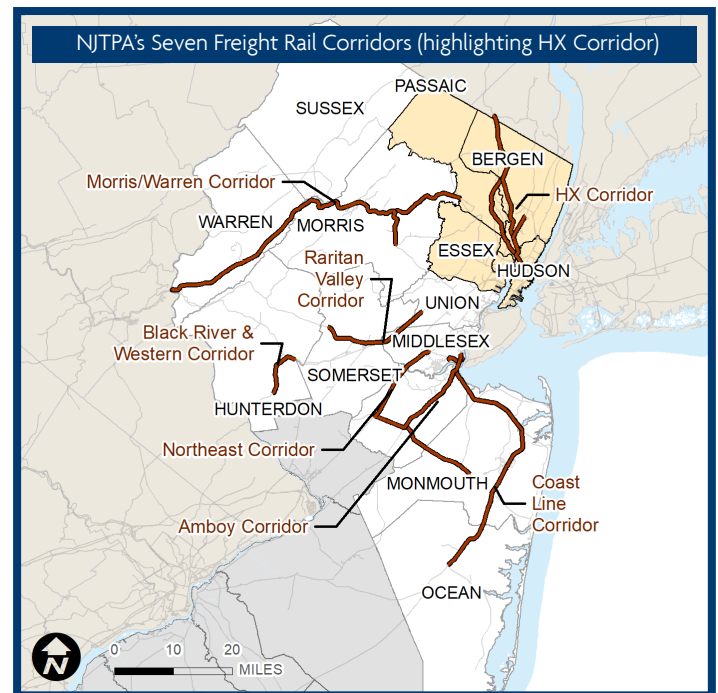
Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren—and the cities of Newark and Jersey City. The Board also includes a Governor's Representative, the Commissioner of the New Jersey Department of Transportation (NJDOT), the Executive Director of NJ TRANSIT, the Chairman of the Port Authority of New York & New Jersey and a Citizen's Representative appointed by the Governor.

About the Study

The NJTPA created the Freight Rail Industrial Opportunity (FRIO) Corridors Program to foster collaboration among public and private entities to address barriers to freight access to industrial properties. Industry and modern freight movement rely on heavier and taller rail cars. Current standards permit cars weighing 286,000 pounds loaded, and measuring 17 feet high. The legacy rail lines serving New Jersey's industrial areas cannot handle many modern rail freight cars, placing industries and sites along these lines at a competitive disadvantage. FRIO addresses this situation by evaluating the improvements needed to handle modern rail cars and the resulting economic potential for seven rail corridors in northern New Jersey. Two databases have been developed to advance decision-making and investments:

- **Industrial opportunity database:** Identifies potential properties along the affected rail lines that could benefit through improved access.
- **Restriction location database:** Inventory of physical height and weight restrictions on the rail lines.

This study will serve as an important roadmap in planning and funding improvements to enhance freight rail transportation and further economic development opportunities in



the region. FRIO advances the NJTPA's mission by linking transportation planning with economic growth, environmental protection and quality of life goals for the region. A final report for the study is available on the NJTPA website, NJTPA.org.



For further information on FRIO,
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