

ECG ESSEX-HUDSON GREENWAY CONNECTOR ROUTING PLAN



October 2017



NV5

Acknowledgements

The project team would like to recognize and express appreciation to the numerous individuals who contributed information, attended a meeting or workshop, sent in a comment, or otherwise participated in the development of the East Coast Greenway Essex-Hudson Greenway Connector Routing Plan. Special thanks to the Steering Committee for their time and on-going commitment to making this vital East Coast Greenway connection a reality.

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with



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Cover Page Photos:

(left to right) Branch Brook Park (Newark)
Boonton Line (Kearny)
Sixth St/Harsimus Stem Embankment (Jersey City)

Disclaimer

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Executive Summary

The East Coast Greenway (ECG) is a developing trail system linking the major cities of the Eastern Seaboard between Canada and Key West, Florida. More than half of the 93 miles of the ECG in New Jersey are currently on off-road shared use paths.

The New Jersey Department of Transportation (NJDOT) supports the development of the ECG in New Jersey. Along with the East Coast Greenway Alliance (ECGA) and NV5, Inc. NJDOT has developed a routing plan to enhance the ECG between the state's two largest cities, Newark in Essex County and Jersey City in Hudson County, as well as the surrounding municipalities of Harrison, Kearny, East Newark and Secaucus. This will provide an off-road shared use path that would offer key recreational and utilitarian walking and bicycling options across the Passaic and Hackensack Rivers.

The study included an analysis of existing reports, resources and maps, field visits, gathering stakeholder input and developing potential connections based on an evaluation of the existing conditions. Constraints in the study area include limited right of way, multiple river crossings, industrial uses, environment concerns, and heavy traffic volumes. Opportunities include multiple unused rail corridors, redevelopment areas, environmental cleanup sites, the Wittpenn Bridge replacement project, and regional significant destinations.



The current ECG route between Essex and Hudson Counties uses a narrow sidewalk along Truck Route 1&9



Access Road to Boonton / Newark Industrial Tract, Kearny, NJ



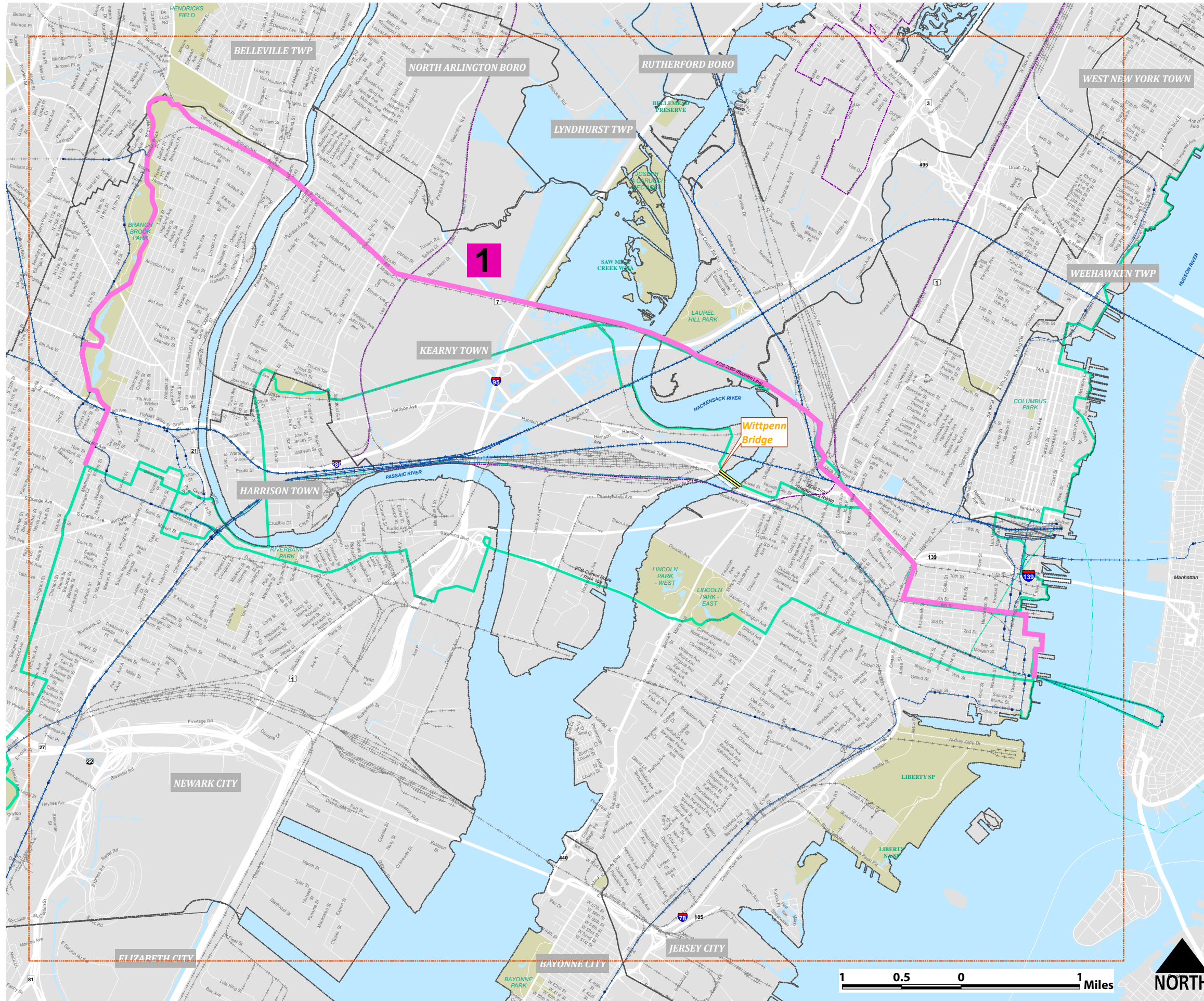
An aerial view of the Bergen Arches, an unused historic rail corridor in Jersey City

Preferred Alignment

Five alternative alignments for the ECG Essex-Hudson Greenway Connector were developed and presented to stakeholders. The Boonton Line Corridor option emerged as the preferred alignment (see map of the preferred alignment on the following page). This railroad corridor is currently inactive and has the potential to be a largely off-road (95%) shared use path that can be used by people of all ages and abilities.

**ECG ESSEX-HUDSON
GREENWAY CONNECTOR
ROUTING PLAN**

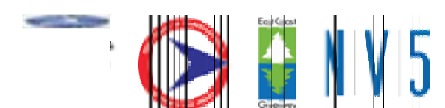
PREFERRED ALTERNATIVE



Legend

- Option 1: Northern Connector - Boonton Line
- East Coast Greenway (Current Route)
- ECG (PathTrain)
- ECG (Ferry to New York)
- NJ Meadowlands
- Municipalities
- Counties
- Witt penn Bridge
- Train Station
- Railroad
- Other Railroad
- Study Area Boundary

*NIT = Newark Industrial Tract



The preferred alignment begins in University Heights in Newark, heads north to the Branch Brook Park Path and then goes eastbound along the Boonton Line. The corridor is largely uninterrupted across the Passaic River through Kearny. The rail corridor used a turn style drawbridge to cross the Hackensack River. This bridge is now locked in a position that is open to river navigation, creating a gap in the rail corridor access across the river. At this point, two options were considered to cross the river. One option was to build a bridge across the river and the second option was to run a small ferry across to Laurel Hill Park in Secaucus. During stakeholder discussions it was determined that a ferry connection would be most cost-effective and feasible to implement. After the river crossing, the alignment continues on the Boonton Line, through the proposed Bergen Arches, the 6th Street Embankment to the Hudson River Waterfront Walkway in Jersey City. A photo board of the various segments of the preferred alignment from Newark to Jersey City is shown on the following page.

Next Steps

The next step for advancing the ECG Essex-Hudson Greenway Connector is to define the discrete projects that would be phased independently in order to make this vision a reality. County and municipal staff should plan to advance these projects independently, with this document showing how each segment fits into the statewide and nationwide effort of completing the East Coast Greenway. It is important to note that the first step for implementation along the railroad corridor segments would be to investigate and confirm the abandonment status.



Steering Committee Members and Routing Strategy Session Participants

PREFERRED ALIGNMENT: BOONTON LINE - PHOTO BOARD

**PREFERRED ALIGNMENT
 NEWARK**



Norfolk Street Sharrows, Newark



Norfolk Street, Newark



Branch Brook Park, Newark



Boonton Line: Greenwood Lake St, Newark



Boonton Line: Route 21 (Passaic River)

**PREFERRED ALIGNMENT
 HARRISON / KEARNY**



Boonton Line at Passaic Avenue, Kearny



**Ice & Iron Trail, Highland Ave, Newark
 Concept / Rendering**



Boonton Line: Forest St, Kearny



Boonton Line: Kearny



Boonton Line: Hackensack River

**PREFERRED ALIGNMENT
 JERSEY CITY**



Boonton Line: Hackensack River



Laurel Hill Park, Secaucus



**www.bergenarches.com, Jersey City
 Concept / Rendering**



**www.embankment.org, Jersey City
 Concept / Rendering**



Hudson River Waterfront Walkway, Jersey City

Project Overview

The East Coast Greenway (ECG) is a developing trail system (www.greenway.org) linking the major cities of the Eastern Seaboard between Canada and Key West, Florida. Over 30 percent of the route is already on car-free greenways, creating safe, accessible routes for people of all ages and abilities. The New Jersey Department Of Transportation has supported the development of the ECG by conducting routing studies, preparing concepts, construction of trail segments, developing a tour guide for ECG in New Jersey, etc. As per the East Coast Greenway Alliance (ECGA), of the 93 miles of the ECG in New Jersey between Pennsylvania and New York, about 54% is on car-free paths.

The ECG is lacking critical connections between the areas of Newark (University Heights area) and Jersey City across the Passaic and Hackensack Rivers. Given the large population of these cities and the redevelopment activity in the surrounding municipalities of Harrison, Kearny, East Newark and Secaucus, providing a convenient off-road shared use path would offer key recreational and utilitarian travel options to a large population. NJDOT has retained NV5 (formerly the RBA Group) to assist the ECGA in developing a routing plan for this project.

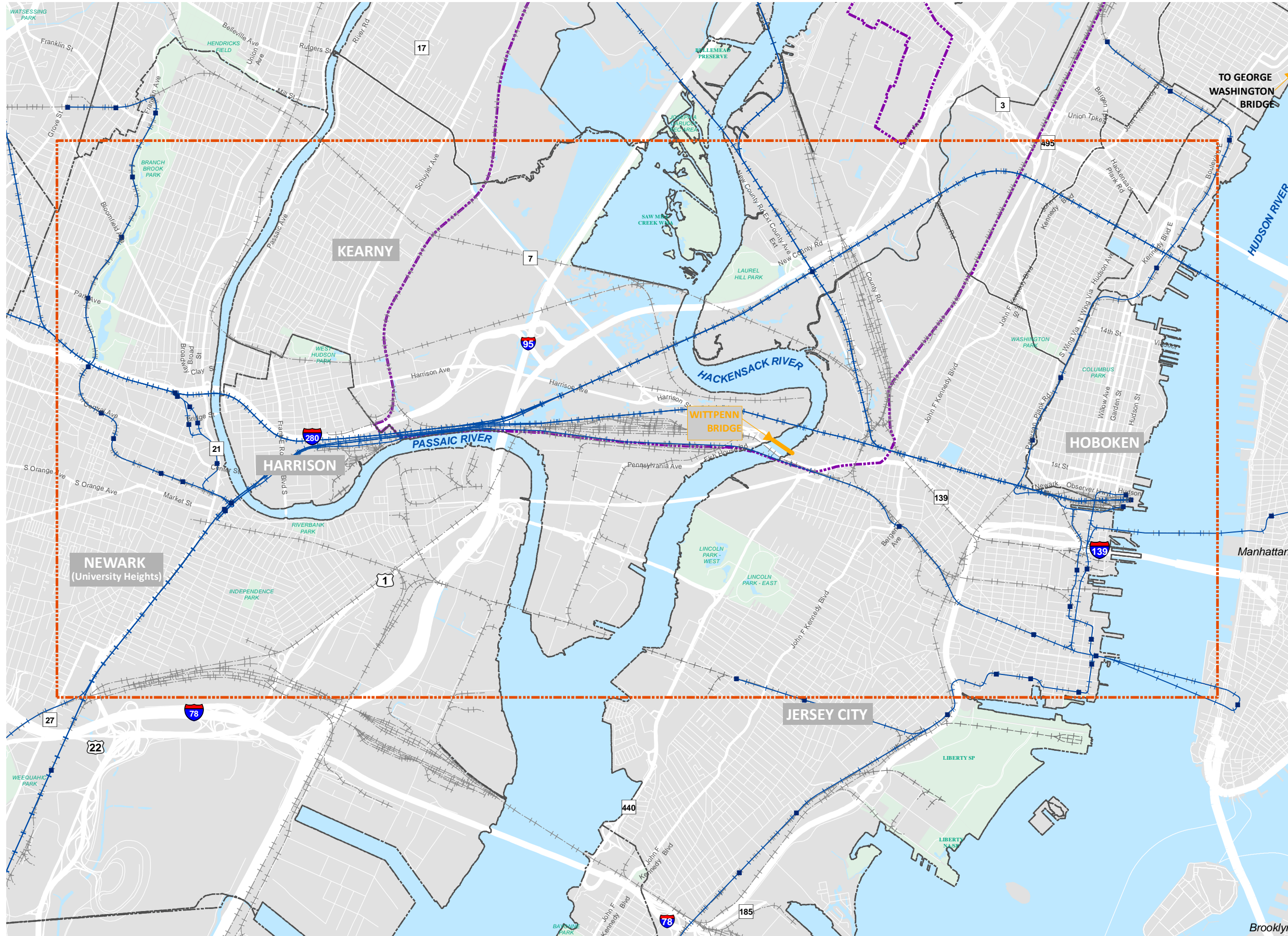
In Hudson and Essex County, the “current ECG travel route” utilizes a sidewalk along Truck Route 1&9 across Kearny for pedestrians, including both the Passaic River and Hackensack River crossings. Bicyclists are required to walk their bikes along this segment that uses a narrow, but continuous, sidewalk along the busy truck route roadway. The focus of this routing plan is to develop an alternate route that is an off-road shared use path that can be used by people of all ages and abilities.

The study area for this project is shown on **Map 1: Study Area** and is the area between University Heights in Newark and Exchange Place in Jersey City. The northern limits include the southern portion of the Meadowlands and the southern limit is Kearny Point in Kearny, New Jersey.



Photo: Access roads along the Hackensack River in Kearny to the Boonton and Newark Industrial Tract

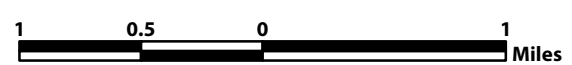
**Map 1
Study Area**



- Legend**
- NJ Meadowlands
 - Municipalities
 - Counties
 - Train Station
 - Railroad
 - Other Railroad

Study Area Boundary

Source: NJDEP, NJDOT, ARCGIS, Plan4Safety



Methodology

In order to get a better understanding of the study area, planned/proposed projects and other insight, the study included an extensive data collection and analysis effort including reviewing existing reports, resources and maps, conducting study area field visits, gathering stakeholder input and developing potential connections based on an evaluation of the existing conditions, see [Appendix 1: Technical Memorandum: System Evaluation](#). NJDOT coordination and stakeholder outreach was accomplished through several mechanisms throughout the development of the Plan. These included a project management website (BaseCamp) and an interactive online mapping tool (WikiMapping).

DATA COLLECTION

NV5 reviewed available reports, resources and mapping provided by NJDOT and the Steering Committee to better understand the study area and proposed/planned related projects. A bibliography of data and reports reviewed is included in [Appendix 1: Technical Memorandum: System Evaluation](#).

Existing Condition Maps

NV5 collected and developed several maps detailing the study area and the surroundings. These include street maps, straight-line diagrams of state and county roads, aerial maps, tax maps and other maps. The tax maps for potential roadways and rail corridors were collected based on the feedback of the Steering Committee and data collection efforts, see [Appendix 2: Existing Condition Maps](#).

Additionally, the Project Team developed maps of existing, planned or proposed trails in the area that could be considered for the project route (see [Map 2: Existing / Planned Trails](#)).

Field Visits

The Project Team visited the study area to capture existing conditions and identify potential options for the ECG Essex-Hudson Greenway Connector. Field visit photos were then added to the WikiMapping tool (online interactive mapping platform).

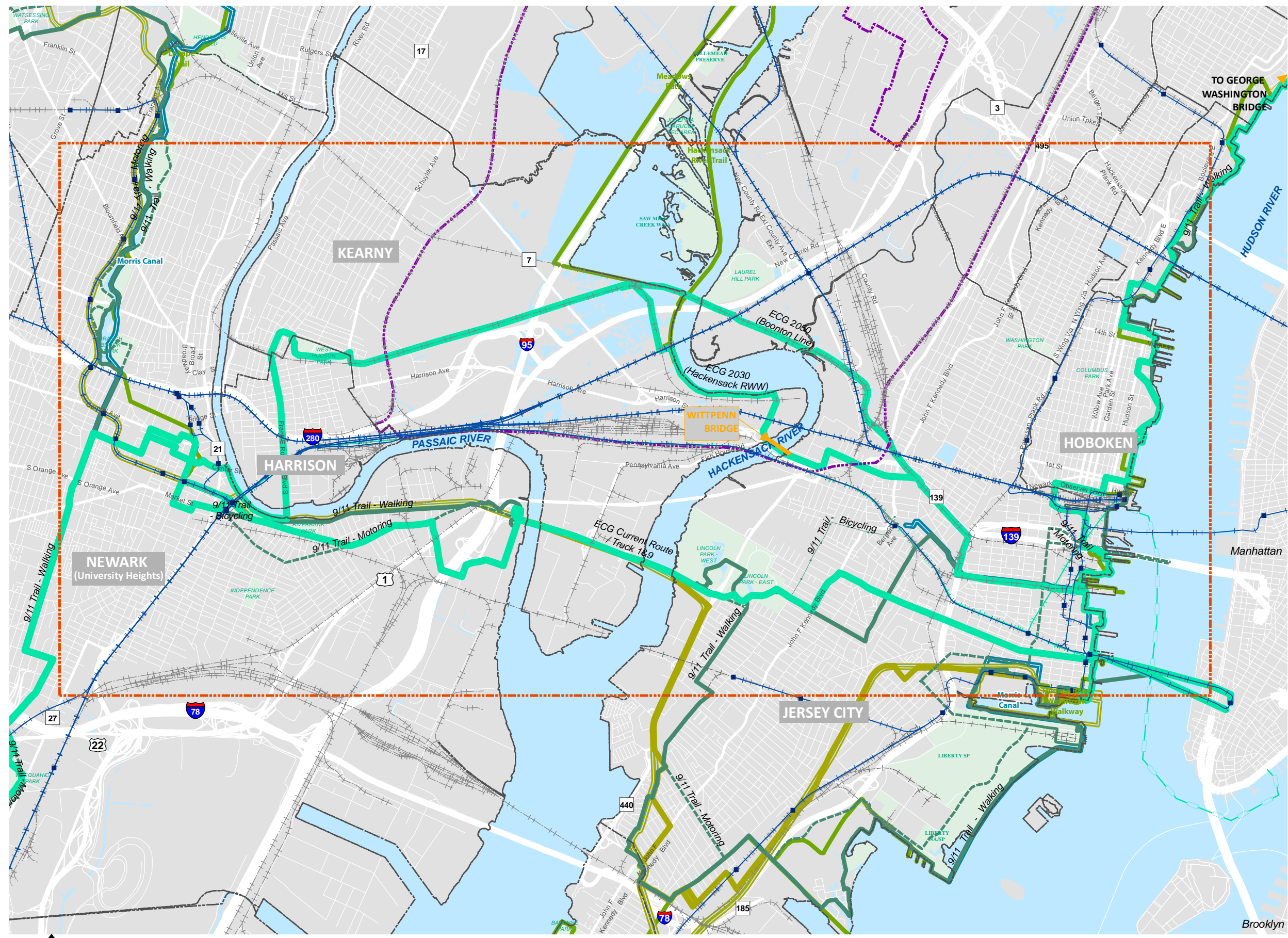
Field Photos



Truck Route 1 & 9, Kearny, NJ

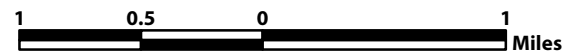
ECG ESSEX-HUDSON GREENWAY CONNECTOR ROUTING PLAN

Map 2 Existing / Planned Trails



- Legend**
- East Coast Greenway
 - ECG (PathTrain)
 - ECG (Ferry to New York)
 - 9/11 Memorial Trail
 - 9/11 Trail Bicycling Only
 - 9/11 Trail Motoring Only
 - Morris Canal Greenway
 - Other Existing Trails
 - Liberty-Water Gap Trail
 - NJ Meadowlands
 - Municipalities
 - Counties
 - Train Station
 - Railroad
 - Other Railroad
 - Study Area Boundary

Source: NJDEP, NJDOT, ARCGIS, Plan4Safety



Field Photos



Frank E Rodgers Blvd, Harrison, NJ

Raymond Boulevard, Newark, NJ

Access Road to Boonton /
Newark Industrial Tract, Kearny, NJ

Environmental Constraints

The Essex-Hudson Greenway Connector study area is highly environmentally sensitive. Using available GIS and Geoweb (NJDEP's GIS data) information, NV5 conducted "desktop research" to identify known environmental constraints within the study area. The following environmental constraints were identified:

- ⇒ 1000 known contaminated sites (non-homeowner)
- ⇒ 112 Chromate waste sites
- ⇒ 408 wetland sites (from Land Use / Land cover 2012 update)
- ⇒ 447 classification exception areas – well restriction areas
- ⇒ 81 historic districts and 1000 historic properties

The USEPA website was reviewed for superfund site information and cleanup status, and also noted on **Map 3: Environmental Constraints**. This research did not include NJDEP file searches which would occur in later design phase of any segment of the Essex-Hudson Connector through this area.

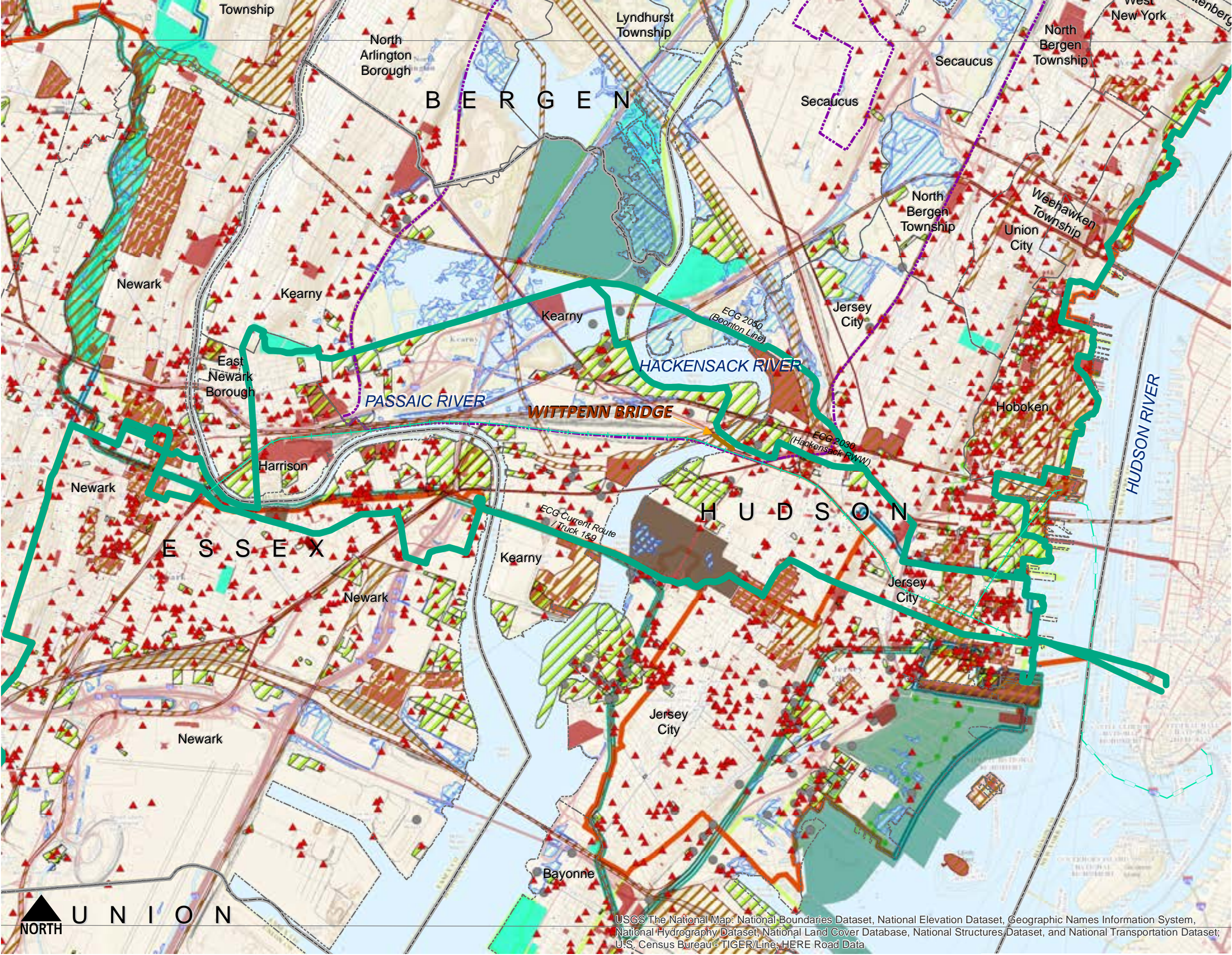
**ECG ESSEX-HUDSON
GREENWAY CONNECTOR
ROUTING PLAN**

**Map 3
Environmental
Constraints**

- Legend**
- East Coast Greenway
 - ECG (PathTrain)
 - ECG (Ferry to New York)
 - Main 9/11 Memorial Trail
 - Morris Canal Greenway
 - Liberty-Water Gap Trail
 - NJ RailTrails
 - NJ Trails Existing
 - NJDOT Bike Routes
 - NJMC_Boundary
 - Municipalities
- Source: NJDEP, NJDOT, ARCGIS

- NJDEP NJOIS Features**
- Known Contaminated Site List for New Jersey (Non-Homeowner)
 - Chromate Waste Sites in New Jersey
 - Wetlands (from Land Use/Land Cover 2012 Update)
 - Classification Exception Areas-Well Restriction Areas for New Jersey
 - Currently Known Extent of Groundwater Contamination (CKE) for New Jersey
 - Historic Properties
 - Historic Districts
 - County Open Space and Recreation Areas in New Jersey
 - State Protected Open Space and Recreation Areas in New Jersey

Source: NJDEP, NJOIS, National Geographic Society, USGS



USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data



5/17/2017

STAKEHOLDER INPUT

Steering Committee

Concurrent with the data collection task, the Project Team, with input from NJDOT and ECGA, established a project Steering Committee. The Steering Committee consisted of regional and local stakeholders that were invited to participate and attend three Steering Committee meetings.



The goal was to assemble a small working group that would be actively involved throughout the project. The efforts of the Steering Committee were complimented by involving a larger group of invited stakeholders during a Routing Strategy Session described in the following discussions.

The Steering Committee attended three meetings throughout the study and provided local insight. Meetings included an initial Project Kick-off meeting, a Routing Workshop meeting and a Final Draft Plan review meeting. **Appendix 3: Stakeholder Input** contains meeting summaries and materials.

- The purpose of the 1st meeting (Project Kick-off) was to review the project scope and schedule, discuss the project objectives, conduct a virtual tour of the study area, identify issues / concerns of potential alternatives and identify stakeholders for the Routing Strategy Session with a larger group of invited stakeholders. The 1st Steering Committee meeting was held on April 4th, 2017 at the Hudson County Planning Office in Jersey City.
- The 2nd Steering Committee meeting (Routing Workshop) was held on May 23rd, 2017 in the Essex County DPW building. The purpose of the 2nd meeting was to review potential alternatives for the ECG Essex-Hudson Greenway Connector Routing Plan, begin prioritizing options, review the project scope and schedule, and strategize for the larger Routing Strategy Session.
- The 3rd Steering Committee meeting (Final Draft Plan Review) was conducted as a digital review of the draft plan. The purpose of that meeting was to review the draft report and gather comments.

Stakeholder Interviews

The Project Team conducted targeted interviews with Jersey City Planning staff and Liberty Landing Ferry staff to gather feedback pertaining to the alternatives developed by the Steering Committee and Project Team.

Liberty Landing Ferry, Jersey City

The Project Team conducted a telephone interview on May 16th, 2017 with Michael Burke, COO of the Liberty Landing Ferry to identify the factors and costs involved in establishing a ferry in the study area. The Liberty Landing Ferry operates in the Hudson River connecting Jersey City, Liberty State Park and the World Financial Center. The Ferry traverses a short distance in the Morris Canal Basin from Warren Street in Jersey City to Liberty State Park (see map below).



Source: www.libertylandingferry.com

The Project Team provided a background of the project and the potential ferry routes under consideration. Mr. Burke provided a brief overview of the Liberty Landing Ferry and the related costs of infrastructure and operation. He recommended that the following factors should be considered while developing a ferry route:

- Ferry Schedule – a regular schedule or as needed basis, weekend or weekday
- Vessel Design and Size – will depend on depth of river and users
- Docks / landing sites – ADA considerations, costs
- Capital costs, operation Costs – staff, fuel
- Fares – subsidies available

Jersey City

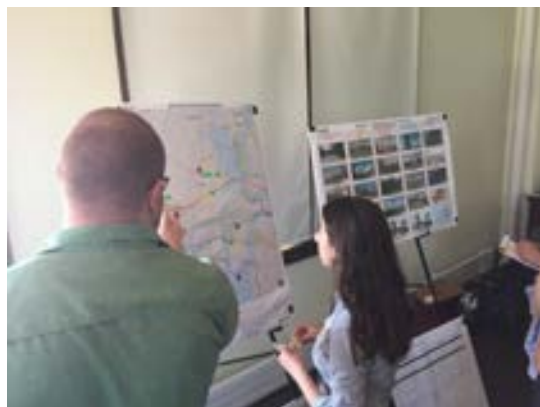
The Project Team conducted an in-person interview with Barkha Patel, a Senior Planner for the Jersey City Division of Planning. The interview was conducted at the Jersey City Planning office at 30 Montgomery Street on June 6th from 9:00 a.m. – 9:45 a.m. Megan Massey from the Hudson County Division of Planning, Office of Engineering was also present at the meeting.

The purpose of the meeting was to gather input for the ECG initial planning level alternatives in Jersey City. The five alternatives developed were described in detail and

then refined based on the input from Jersey City Planning. Additional insight regarding planned / proposed bicycle facilities in Jersey City such as the Montgomery Street bicycle lanes and at-grade shared-use paths along 6th Street were discussed.

Routing Strategy Session

The purpose of the East Coast Greenway (ECG) Essex-Hudson Greenway Connector Routing Strategy Session was to introduce the project and to present and prioritize the alignment alternatives developed with the Steering Committee to a larger group of invited stakeholders with the end goal of strategizing next steps and future projects for the ECG.



The meeting was held on June 22nd, 2017 from 9:30 a.m. – 11:30 a.m. at the Central Railroad Terminal in Liberty State Park. The session was attended by over 20 stakeholders including regional and local representatives, Office of Bicycle and Pedestrian Programs at NJDOT and the project Steering Committee. A copy of the invite, sign-in sheet and meeting agenda are in **Appendix 3: Stakeholder Input**.

Participants included the following:



Joseph Powell, NJDOT Office of Bicycle and Pedestrian Programs initiated the meeting with an overview of the project, the purpose of the session and introductions. Bruce Donald, East Coast Greenway Alliance, presented a brief overview of the ECG in New Jersey. Mike Dannemiller, NV5 provided an overview of the project scope of work, study area limits, the methodology for selection of the alignment alternatives, the format of the session and the next steps. The study area was divided into three sections – Newark, River to River (Kearny/Harrison) and Jersey City. Mike Dannemiller and Rachana Sheth then facilitated a discussion of the five alignment alternatives in each section and the relevant pros/cons or rating criteria for each of the alignment options. The rating criteria for each of the options included the following:

- % on-road / off-road
- Traffic Safety (number of intersections)
- Personal Safety (distance to closest public right-of-way)
- Width
- Trail Connectivity
- Length
- Commuting Time on bicycle
- Environmental constraints
- Link to local destinations
- Route status
- Construction requirements and impacts
- Time-frame
- Ownership status
- Estimated construction costs

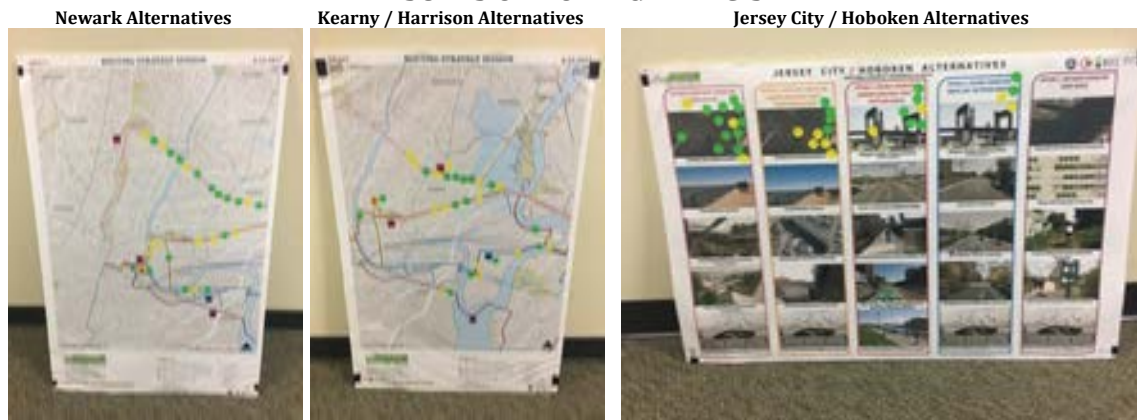
Following the discussion of each alternative in the three sections, the attendees were encouraged to review the alignments in detail at three stations with a map, matrix and photo journey for each of the three sections of the study area. The project team facilitated discussions at those stations and clarified any routing questions.

The attendees were guided through a voting exercise to develop consensus for a refined route, including a list of potential and responsible parties for advancing the ECG across the study area. Participants were provided six dots to identify their top two preferred options in each section – Newark, Kearny/Harrison and Jersey City. The results of the voting exercise are below:

	Newark Alternatives		Kearny / Harrison Alternatives		Jersey City / Hoboken Alternatives		Total
	1st Choice	2nd Choice	1st Choice	2nd Choice	1st Choice	2nd Choice	
<u>Option 1: Northern Connector Boonton Line</u>	9	4	6	6	11	3	39
<u>Option 2: Northern Connector Newark Industrial Tract / Frank Rodgers Blvd</u>	4	3	3	3	4	4	21
<u>Option 3: Central Connector Newark Industrial Tract / Wittpenn Bridge</u>	2	6	4	4	5	2	23
<u>Option 4: Central Connector Route 1&9 / Wittpenn Bridge</u>	4	1	4	3	2	2	16
<u>Option 5: Southern Connector Ferry Route</u>	0	0	1	1	0	0	2

*Note: In segments where a dot was placed on overlapping alignments, the vote was entered for all alignments within that section.

RESULTS OF VOTING EXERCISE



ANALYSIS & POTENTIAL ALTERNATIVES

Opportunities & Constraints

The data collection task and the Steering Committee kick-off meeting helped identify opportunities and constraints associated with the ECG Essex-Hudson Greenway Connector. Constraints included limited right of way, multiple river crossings, industrial uses, environment concerns, and heavy traffic volumes. The current roadway network has heavy truck traffic volumes, and includes river crossings that use operating drawbridges. The overall land use throughout the area is highly industrial, and is spotted with environmental cleanup sites. The motor vehicle traffic includes a very high percentage of truck traffic, due to the abundance of staging areas of roll-on/ roll-off tractor trailer container staging areas in East Newark and Kearny. The New Jersey Turnpike, Pulaski Skyway and Route 1&9 Truck all traverse the study area. Rail freight lines also bisect this, as do several historic rail corridors that are currently either unused or partially used.

Opportunities include multiple unused rail corridors, redevelopment areas, environmental cleanup / Superfund sites, Wittpenn bridge project, and regional significant destinations. Replacing the existing Wittpenn drawbridge with a newer, higher drawbridge is NJDOT's largest bridge project to date and is currently under construction. Due to its increased clearance over the Hackensack River it will not need to be operated nearly as often. This bridge will include a six foot wide sidewalk on one side. There will be continuous sidewalk connecting the bridge to Fish House Road in Kearny and to Newark Avenue in Jersey City.



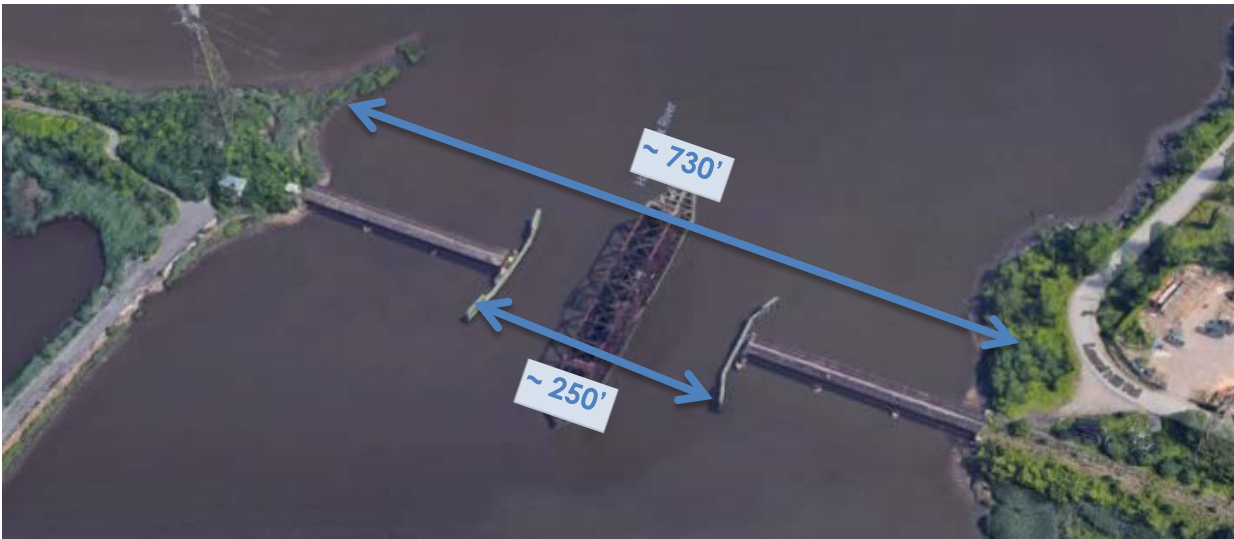
Wittpenn Bridge (rendering)



Boonton Line, Newark, NJ

The Boonton line (from Montclair/ Bloomfield/ Belleville/ Kearny) and the Newark Industrial Tract (from Harrison) are historic rail corridors in the study area north of the Northeast Corridor (NEC). These two historic railroad corridors converge in Kearny, just west of the Hackensack River. These rail lines used one turn style drawbridge to cross the Hackensack River. This bridge is now locked in a position that is open to river navigation, creating a gap in the rail corridor access across the river. These rail corridors

present significant opportunity for reestablishing public access, now as a path for pedestrian and bicycle access across the Meadowlands.



Aerial View: Boonton Line over the Hackensack River

The historic rail corridor continues to the east through the Bergen Arches, a corridor that has been long considered for various transportation uses, and is presently unused. At the eastern terminus of the Bergen Arches, there is a small network of freight rail lines that run north-south parallel to the New Jersey Turnpike that is elevated through this section of Jersey City.



Bergen Arches (rendering), Source: greenvillian.com



Aerial View of the Bergen Arches, Jersey City

The Sixth Street/ Harsimus Stem Embankment former railroad corridor connects this historic rail corridor and Bergen Arches to the Hudson Riverfront area. The embankment project is the focus of a major concept to create a Greenway along what had been an elevated rail line with multiple parallel tracks. There is a coalition (<http://www.embankment.org/>) that was formed whose goal is to "...to preserve the structure and its longer right of way for a habitat-oriented linear park..." This is another excellent opportunity for the Essex-Hudson Greenway Connector for routing across Jersey City.



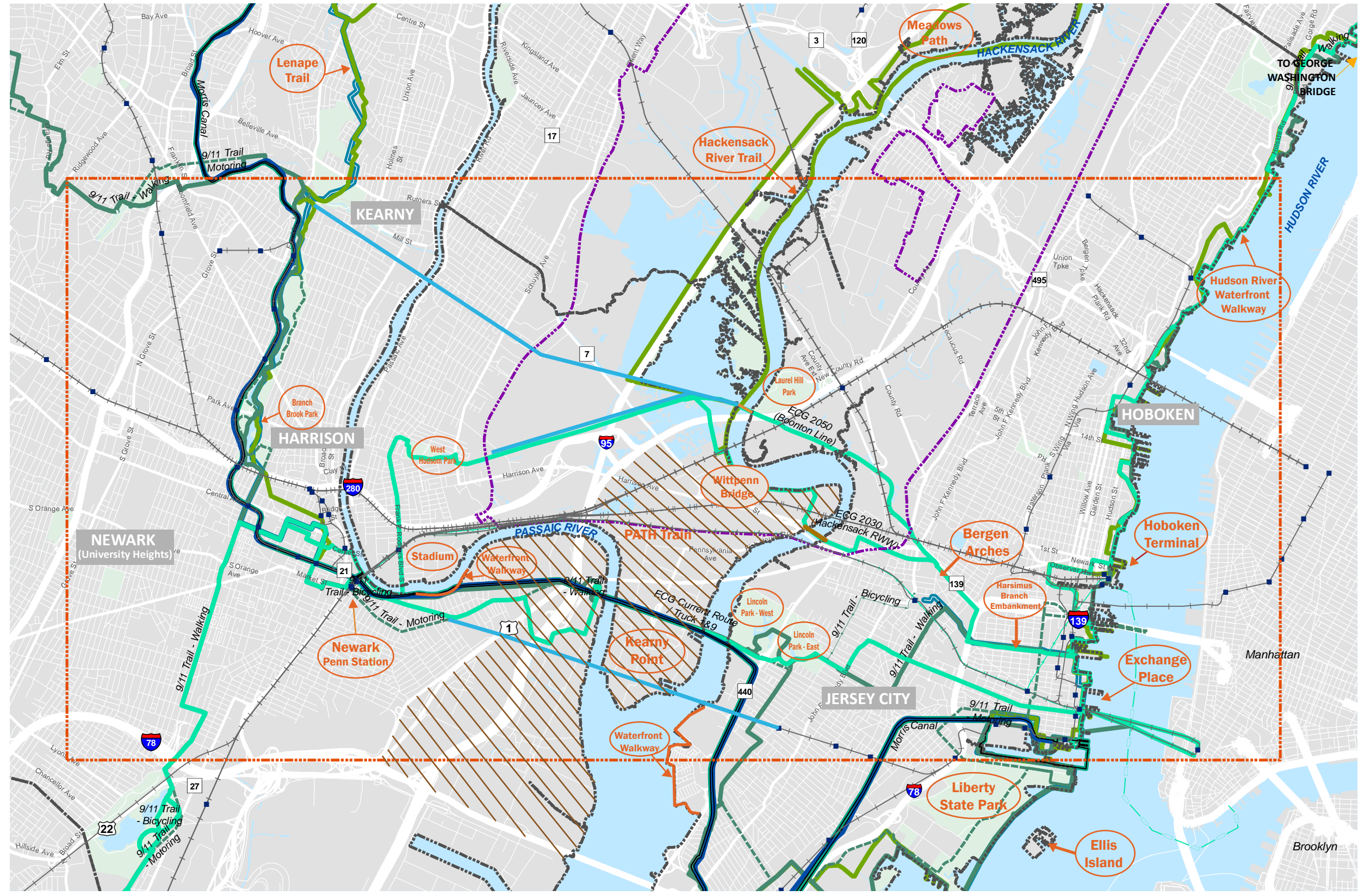
6th Street / Harsimus Stem Embankment (rendering), 6th Street / Harsimus Stem Embankment, Jersey City
Source: Embankment Preservation Coalition

There are opportunities to connect many regionally significant destinations along and around the Essex-Hudson Greenway Connector study area with new pedestrian and bicycle access. Connecting the parks, commercial areas, high density residential areas and currently inaccessible meadowlands areas between Newark and Jersey City will be an excellent enhancement for residents, visitors and employees throughout the region. This Greenway has the opportunity to provide a non-motorized travel alternative to the PATH and NJ TRANSIT trains and motor vehicle crossings of the Meadowlands area and will link Newark and Jersey City.

The following **Map 4** shows the opportunities and constraints within the study area.

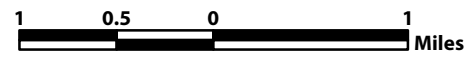
ECG ESSEX-HUDSON GREENWAY CONNECTOR ROUTING PLAN

Map 4 Opportunities & Constraints Map



- Legend**
- East Coast Greenway
 - ECG (PathTrain)
 - ECG (Ferry to New York)
 - 9/11 Memorial Trail
 - 9/11 Trail Bicycling Only
 - 9/11 Trail Motoring Only
 - Morris Canal Greenway
 - Other Existing Trails
 - Liberty-Water Gap Trail
 - NJ Meadowlands
 - Municipalities
 - Counties
 - Train Station
 - Railroad
 - Study Area Boundary
 - Industrial Uses
 - Major Destinations
 - Historic Rail Corridor

Source: NJDEP, NJDOT, ARCGIS



5/17/2017

Potential Alternatives

Based on input from the Steering Committee, field visits and data collection, the Project Team initially developed six alternatives for the ECG Essex-Hudson Greenway Connector. The alignment options were grouped in three sections – Newark Alternatives, River to River (Kearny/Harrison) Alternatives and Jersey City/Hoboken Alternatives. These alternatives were reviewed and refined into five alternatives with assistance from the Steering Committee at the 2nd Steering Committee / Routing Workshop meeting (see [Appendix 4: Initial Planning Level Alternatives](#)).

The [Overview Map 5](#) shows the five alternatives for the ECG Essex-Hudson Greenway Connector. The five alternatives presented to a larger group of invited stakeholders at the Routing Strategy Session were:

[Option 1: Northern Connector – Boonton Line](#)

[Option 2: Northern Connector – Newark Industrial Tract / Frank Rodgers Boulevard](#)

[Option 3: Central Connector – Newark Industrial Tract / Wittpenn Bridge](#)

[Option 4: Central Connector – Route 1&9 / Wittpenn Bridge](#)

[Option 5: Southern Connector – Ferry](#)

The alternative maps were complemented with a matrix that provided a description of each alternative with screening/rating criteria. The rating criteria for each of the options included the following:

- ⇒ Percent on-road / off-road
- ⇒ Traffic Safety (number of intersections / roadway conflict points)
- ⇒ Personal Safety (distance to closest public right-of-way)
- ⇒ Width
- ⇒ Trail Connectivity
- ⇒ Length
- ⇒ Commuting Time on bicycle
- ⇒ Environmental constraints
- ⇒ Link to local destinations
- ⇒ Route status
- ⇒ Construction requirements and impacts
- ⇒ Time-frame
- ⇒ Ownership status
- ⇒ Estimated Planning Level construction costs

The maps, matrix and photo boards of the initial planning level alternatives are in [Appendix 4: Initial Planning Level Alternatives](#).

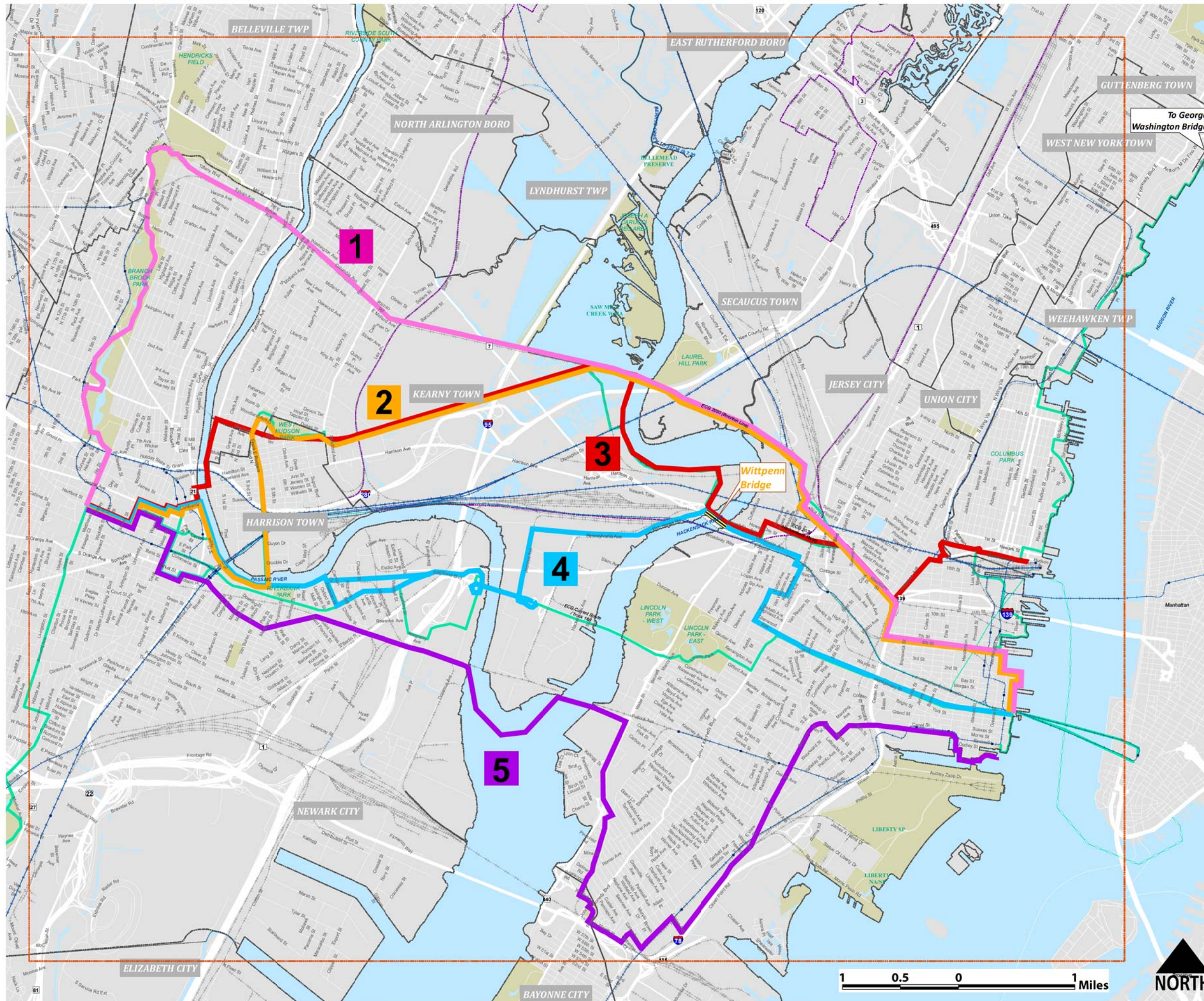
Map 5

**Overview Map:
Initial Planning
Level Alternatives**

Legend

- Option 1: Northern Connector - Boonton Line
- Option 2: Northern Connector - NIT*/Frank Rodgers Blvd
- Option 3: Central Connector - NIT*/Wittpenn Bridge
- Option 4: Central Connector - RT 1&9/Wittpenn Bridge
- Option 5: Southern Connector - Ferry
- East Coast Greenway (Current Route)
- ECG (PathTrain)
- ECG (Ferry to New York)
- NJ Meadowlands
- Municipalities
- Counties
- Wittpenn Bridge
- Train Station
- Railroad
- Other Railroad
- Study Area Boundary

*NIT = Newark Industrial Tract



Preferred Alignment

Based on the results of the Routing Strategy Session, the Project Team identified the Boonton Line (Option 1) as the preferred alignment for the ECG Essex-Hudson Connector. In all three sections, this option emerged as the preferred alignment. This railroad corridor is currently inactive and has the potential to be a largely off-road (95%) shared use path that can be used by people of all ages and abilities.

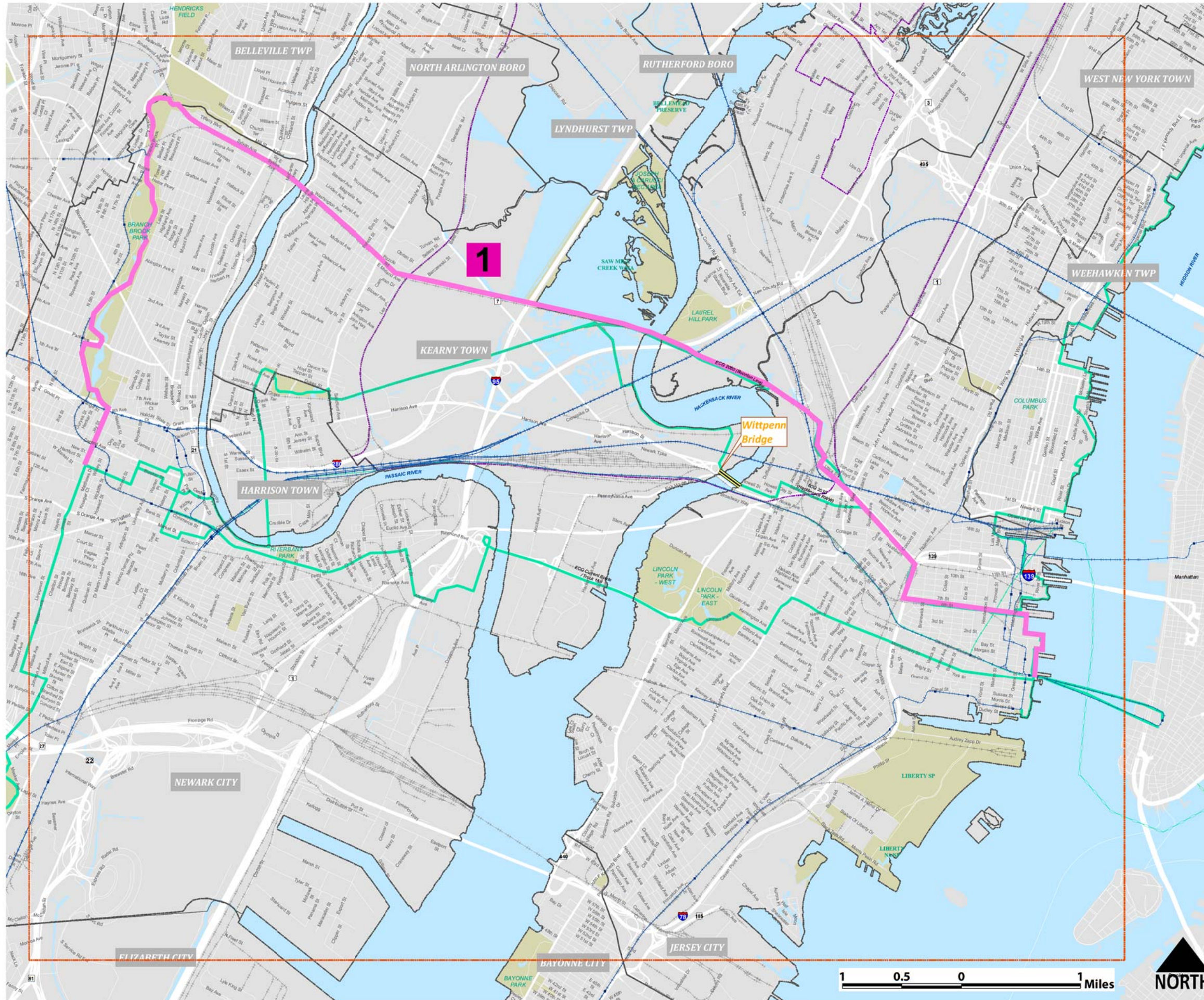
The preferred alignment begins in University Heights in Newark heads north to the Branch Brook Park Path and then goes eastbound along the Boonton Line. The corridor is largely uninterrupted across Passaic River through Kearny up to the Hackensack River. The rail corridor used one turn style drawbridge to cross the Hackensack River. This bridge is now locked in a position that is open to river navigation, creating a gap in the rail corridor access across the river. At this point, two options are recommended to cross the river. One option is to build a bridge across the river and the second option is to run a small ferry across to Laurel Hill Park in Secaucus. During stakeholder discussions it was determined that a ferry connection would be most cost-effective and feasible to implement. After the river crossing, the alignment continues on the Boonton Line, through the proposed Bergen Arches, the 6th Street Embankment and to the Hudson River Waterfront Walkway in Jersey City, see [Map 6: Preferred Alignment](#).

Implementation

The Boonton Line (Option 1) was selected as the preferred alignment in all three sections. The following matrix ([Table 1](#)) includes a list of potential responsible parties or teams for the development of the Boonton Line for the ECG Essex-Hudson Greenway Connector. [Table 2](#) includes a summary of the preferred alignment and the rating criteria used to analyze the different alignment options.

<u>Table 1: Preferred Alignment – Responsible Parties / Owners</u>	
<u>Preferred Alignment</u> Boonton Line (Option 1)	<p><u>Newark</u>: Local roads, Essex County Park roads, Norfolk Southern</p> <p><u>Kearny / Harrison</u>: Norfolk Southern</p> <p><u>Jersey City</u>: Norfolk Southern, Route 139, NJ TRANSIT, Hudson County, Local Roads</p>

**Map 6
Preferred
Alignment**



Legend

- Option 1: Northern Connector - Boonton Line
- East Coast Greenway (Current Route)
- ECG (PathTrain)
- ECG (Ferry to New York)
- NJ Meadowlands
- Municipalities
- Counties
- Wittpenn Bridge
- Train Station
- Railroad
- Other Railroad
- Study Area Boundary

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Table 2: PREFERRED ALIGNMENT – Route Summary & Rating Criteria

ROUTE LOCATION SUMMARY				
Municipal Corridors (Off-road, On-road)		Newark Branch Brook Park Path, Boonton Line	Kearny Boonton Line	Jersey City Boonton Line, Bergen Arches, 6th Street Embankment, Hudson River Waterfront Walkway
River Crossings	Passaic River	Existing Boonton Line RR Bridge	Existing Boonton Line RR Bridge	NA
	Hackensack River	NA	Proposed Ferry	Proposed Ferry
RATING CRITERIA				
% On-Road / Off-road		10% On Road & 90% Off Road	0% On Road & 100% Off Road	5% On Road & 95% Off Road
Traffic Safety (traffic conflicts)		22 intersections	3 intersections	4 intersections
Personal Safety (distance to closest public way)		600 ft.	4400 ft.	5500 ft.
Width		10'-14' off-road	10' -14'	10'-14'
Trail Connectivity (to other trails)		Morris Canal Greenway, Liberty- Water Gap, 9/11	Meadows Path, Hackensack River Trail, Ice & Iron Trail	Hackensack River Trail, Hudson River Waterfront Walkway
Length		4.5 mi of 13.2 total	3.4 mi of 13.2 total	5.3 mi of 13.2 total
Commuting time on bicycle (assume 10 mph average)		27 mins of 1 hours 19 minutes total	20 mins of 1 hours 19 minutes total	32 mins of 1 hours 19 minutes total
Environment Constraints (within 100 feet of the preferred alignment)		<ul style="list-style-type: none"> • Freshwater wetlands (6) (within Branch Brook Park) • 3 known contaminated sites (non-homeowner) • T&E species habitat within Branch Brook Park • Historic properties & districts listed or eligible for listing on the National Register: <ul style="list-style-type: none"> o Branch Brook Park Historic District & contributing elements o Cherry Blossom Trees o Forest Hill Historic District o Tiffany and Company Factory historic property 	<ul style="list-style-type: none"> • T&E species habitat may occur on site • 5 known contaminated sites • Freshwater wetlands (12) • Waterfront development • Historic properties & districts listed or eligible for listing on the National Register: <ul style="list-style-type: none"> o Jersey City Waterworks Pipeline 	<ul style="list-style-type: none"> • Waterfront development • Freshwater wetlands (3) • 6 known contaminated sites • Historic properties & districts listed or eligible for listing on the National Register: <ul style="list-style-type: none"> o Jersey City Waterworks Pipeline o Harsimus Cove Historic District o Erie Railroad Bergen Hill Tunnel (Long Dock Tunnel) o Hudson and Manhattan Railroad Transit System Historic District
Link to Destinations		Branch Brook Park, University Heights	New Jersey Meadowlands	Laurel Hill Park, Downtown Jersey City
Current Route Planning Status		Existing / Planned	Planned by others	Planned by others
Construction concept		Path construction on historic railroad corridor	Path construction on historic railroad corridor	Path construction on historic railroad corridor, Signs & striping
Construction impacts		Commercial staging along Boonton Line	Historic Rail Road Corridor	Historic rail corridors
Time-frame		2+ years	2+ years	2+ years
Ownership Status		County Parks, Newark Roads, Railroad Corridor	Norfolk Southern	Norfolk Southern, CONRAIL, Route 139, Jersey City Roads
Estimated Construction Costs (Low =< \$2M, Medium \$2M-\$10M, High =\$10M+), excludes right-of-way costs		Medium	Low	High

Next Steps

With the alignment defined, the next step for advancing the ECG Essex-Hudson Greenway Connector is to define the discrete projects that would be phased independently in order to make this vision a reality. **Table 3** details recommended projects by segment and suggested champions to lead each project. This is illustrated in **Map 7: Preferred Alternative: Segment Map**. It is important to note that the first step for the railroad corridor segments would be to investigate and confirm the abandonment status. Potential strategies for implementation along the railroad corridors can include rail-banking of the corridors.

Railbanking is a method by which rail corridors that are unused or abandoned are preserved for future rail use and converted to a trail in the interim. The railbanking statute allows the removal of all equipment (except bridges, tunnels and culverts) and the transfer of maintenance as a trail to a private or public agency. It was established in 1983, as an amendment to Section 8(d) of the National Trails Act. The Rails to Trails Conservancy (RTC) has multiple resources on railbanking on their website as part of their trail building toolbox (<https://www.railstotrails.org/build-trails/trail-building-toolbox/railbanking/>). Both RTC and NJDEP recommend the use of this toolbox as a way to utilize the underused railroads within the study area for creating a greenway.

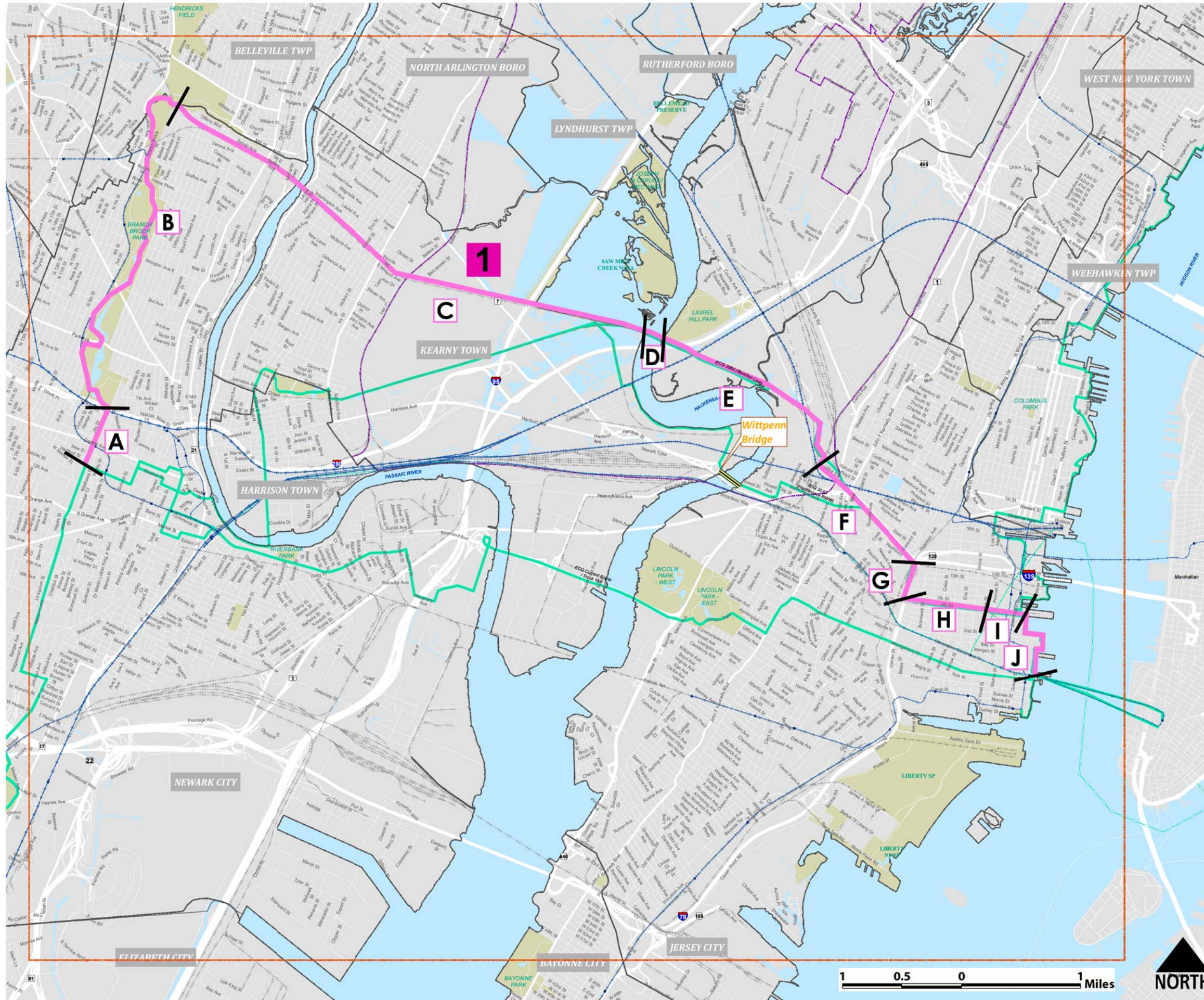
Table 3: Preferred Alignment - Recommended Projects

Segment		Jurisdiction /Lead	Project Description
A	Newark City Roadways	City of Newark	Sidewalk and on-road bicycle facilities, and wayfinding signs
B	Branch Brook Park	Essex County	Path access policy change to allow bicycles, and wayfinding signs
C	Boonton Line west (Branch Brook Park to Hackensack River)	Essex & Hudson Counties (coordinating with Norfolk Southern)	Shared Use Path construction along the unused railway as rail to trail or possible rail with trail
D	Hackensack River Ferry Crossing	Hudson County	Construct new ferry landings and establish service (investigate using Laurel Hill Park ferry landing for the eastern riverbank access). If the proposed Portal Bridge South project includes bicycle and pedestrian access, the alignment could be revisited to utilize this new bridge across the Hackensack River.
E	Boonton Line east (Hackensack River to Bergen Arches)	Hudson County	Shared Use Path construction along the unused railway as rail to trail or possible rail with trail or along the adjacent maintenance road. Will include grade separated crossings of active freight railways and Tonnelle Avenue in Jersey City

F	Bergen Arches	Hudson County & Jersey City	Shared Use Path construction along the corridor, potentially at or near to surrounding surface grade (along Route 139), or the bottom of the cut. Will require grade separated crossings under the seven local streets that cross the corridor.
G	Bergen Arches to Harsimus Stem (6 th Street) Embankment	Hudson County & Jersey City	Shared Use Path construction along and over the railway corridors
H	Harsimus Stem (6 th Street) Embankment West (Newark Avenue to Marin Boulevard)	Hudson County & Jersey City	Shared Use Path construction along the railway corridor (Short Term development could be at surface level adjacent to the elevated embankment)
I	Harsimus Stem (6 th Street) Embankment East / Thomas Gangemi Drive (Marin Boulevard to Hudson River Waterfront Walkway)	Hudson County & Jersey City	Sidewalk and on-road bicycle facilities, and wayfinding signs
J	Hudson River Waterfront Walkway	Hudson County	Wayfinding signs

While NJDOT has supported the statewide planning and more focused investigation for connecting Essex and Hudson Counties, the most appropriate leads for these projects are more local. A logical next step would be for ECGA to facilitate a local stakeholder group to coordinate phased project development of the Greenway Connector. County and municipal staff should plan to advance these projects independently, with this document showing how each segment fits into the statewide and nationwide effort of completing the East Coast Greenway. Completing the ECG in the areas of Newark, Jersey City and surrounding municipalities across the Passaic and Hackensack Rivers will benefit the regional population by providing key recreational and utilitarian travel options along a critical travel corridor in Essex and Hudson Counties.

**Map 7
Preferred Alignment
Segments**



Legend

- █ Option 1: Northern Connector - Boonton Line
- Z Preferred Alignment Segments
- █ East Coast Greenway (Current Route)
- █ ECG (PathTrain)
- █ ECG (Ferry to New York)
- █ NJ Meadowlands
- █ Municipalities
- █ Counties
- █ Witt penn Bridge
- Train Station
- Railroad
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