

Integrating Local and Regional Resiliency Priorities for Project Implementation

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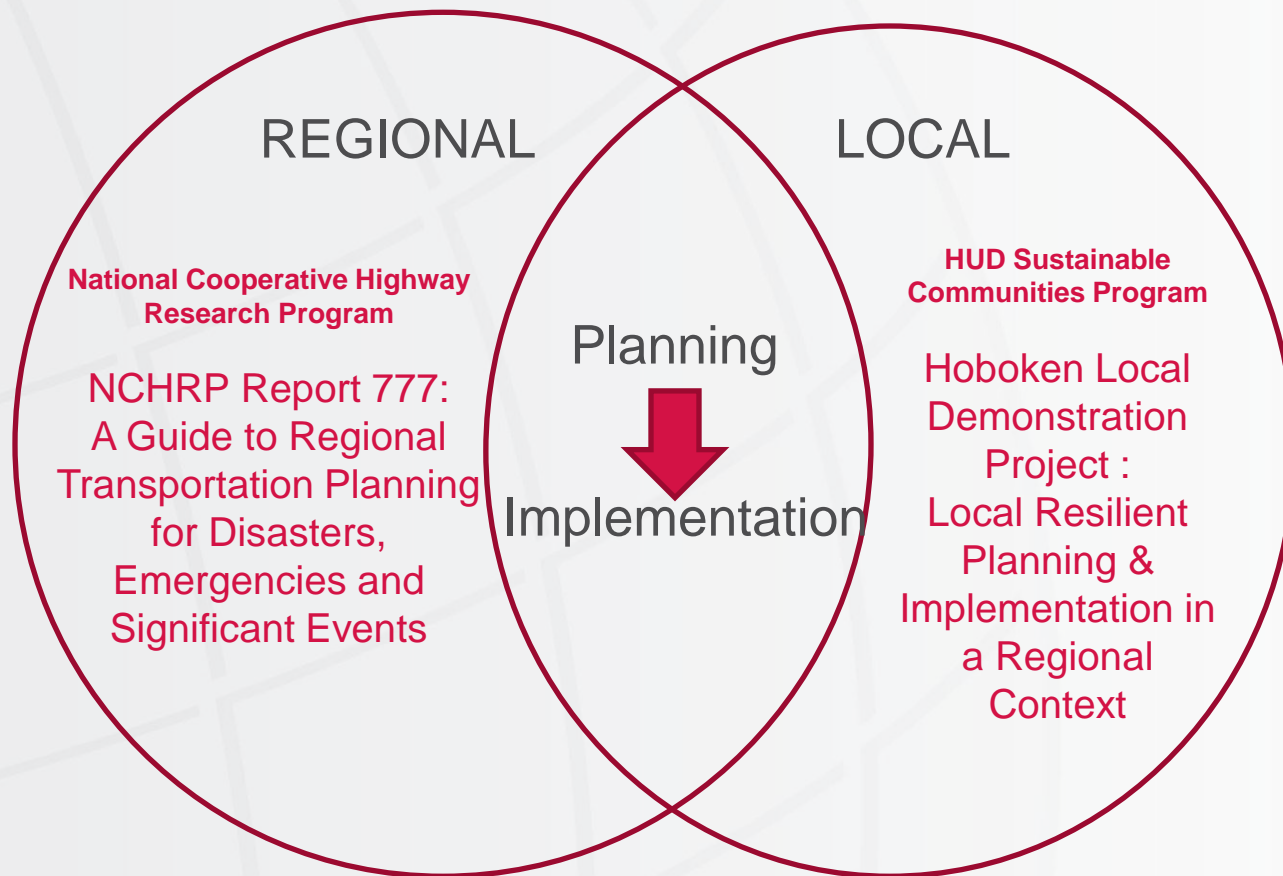
Northeast Climate Change Preparedness Conference – May 20, 2014



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Integrated Resiliency

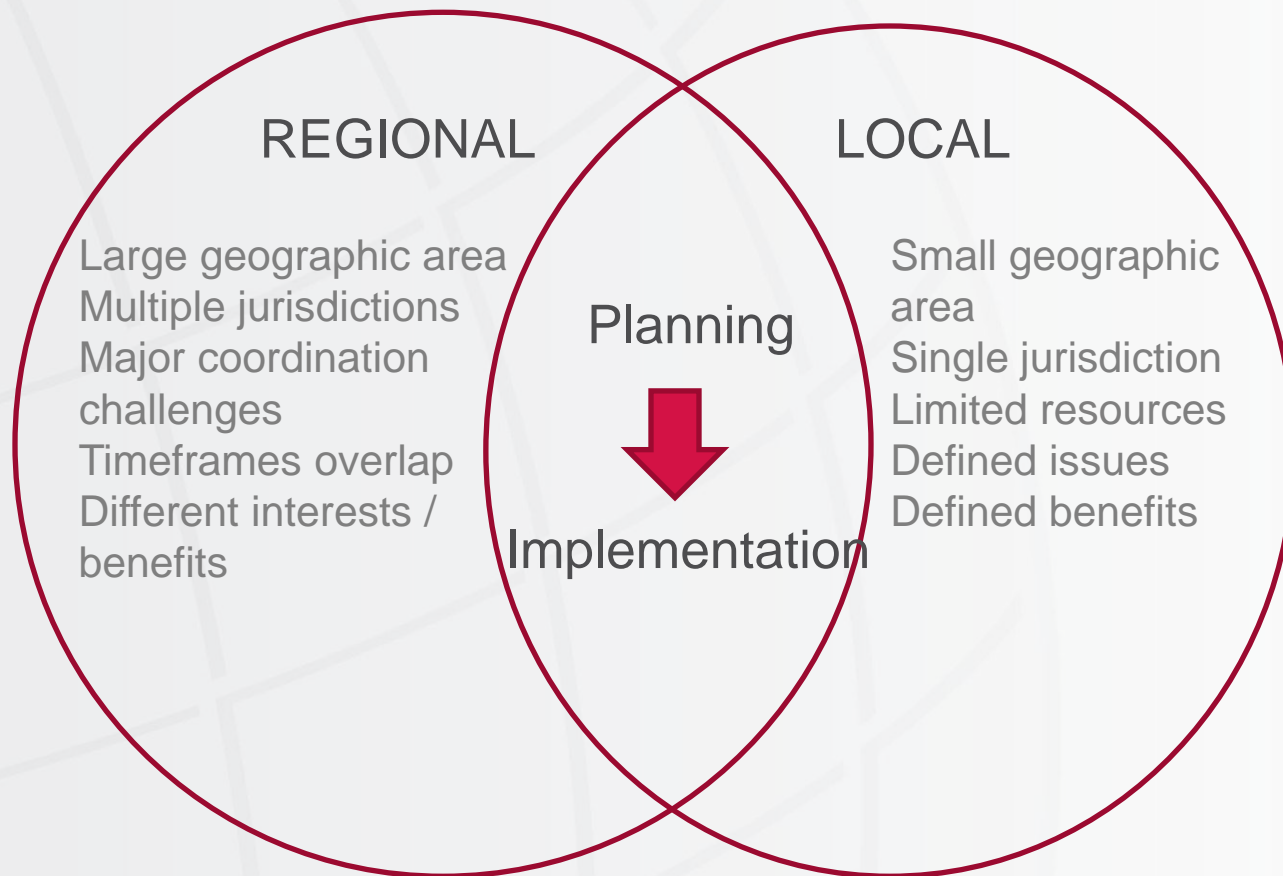
Regional/Local - Planning/Implementation



Resilience: The Primary Objective

- » *“Resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.”*
- » – The National Academies, ‘Disaster Resilience: A National Imperative’ 2012.
- » The National Academy of Sciences (NAS) report puts forth a vision of the characteristics of a resilient nation in the year 2030:
 - “The characteristics describe a more resilient nation in which
 - Every individual and community in the nation has access to the risk and vulnerability information they need to make their communities more resilient.
 - All levels of government, communities, and the private sector have designed resilience strategies and operation plans based on this information.
 - Proactive investments and policy decisions have reduced loss of lives, costs, and socioeconomic impacts of future disasters.
 - Community coalitions are widely organized, recognized, and supported to provide essential services before and after disasters occur.
 - Recovery after disasters is rapid and the per capita federal cost of responding to disasters has been declining for a decade.
 - Nationwide, the public is universally safer, healthier, and better educated.” (NAS 2012 Summary, page 2.)

Integrated Regional Resiliency Planning / Implementation



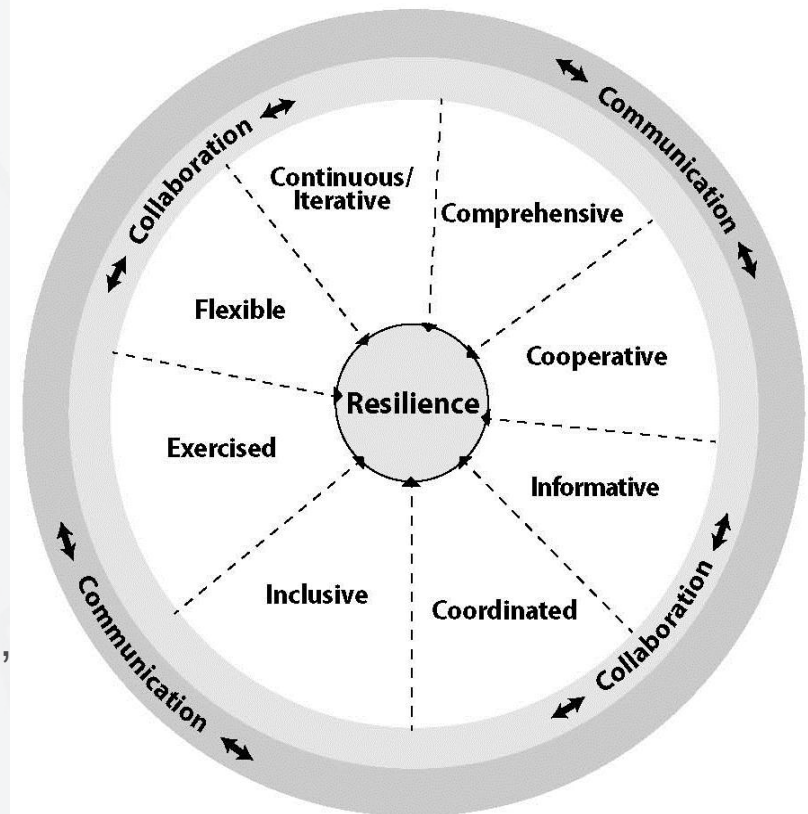
Guide to Regional Transportation Planning for Disasters, Emergencies and Significant Events: NCHRP Report 777

Project Objective

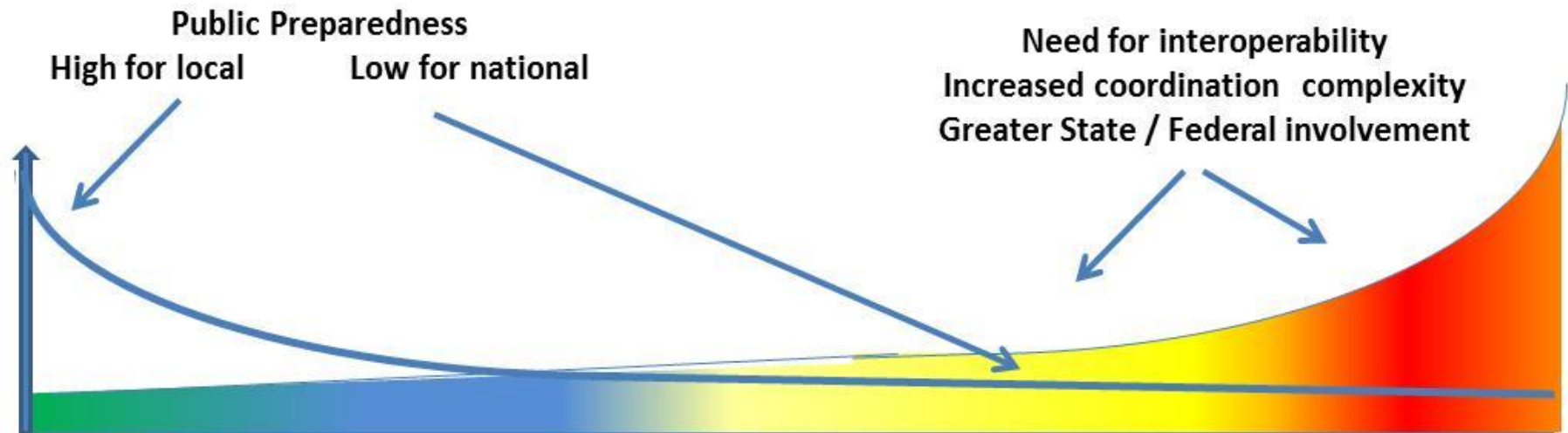
Develop a guide with principles and resources to facilitate regional transportation planning, coordination, and operations for disasters, emergencies and significant events across:

- » **Agencies:** law enforcement, emergency mgt., health, transit, etc.
- » **Modes:** highway (truck, auto), transit (bus, paratransit, rail) water, air, pedestrian, etc.
- » **Jurisdictions:** towns, cities, counties, states, tribal and international borders
- » **Levels of government:** local, regional, state(s), possibly tribal, federal and international
- » **Private and non-profit entities:** critical infrastructure (e.g., utilities, communications); suppliers; client focus (e.g., service providers)

Successful integrated planning essential to project implementation, effective mitigation & resilience



INCIDENT SCALE / PUBLIC PREPAREDNESS / INTERGOVERNMENTAL – MULTIJURISDICTIONAL INVOLVEMENT



Classification	LOCAL	REGIONAL	STATE		NATIONAL
Examples	<ul style="list-style-type: none"> • Minor traffic incidents • Vehicle fires • Minor train/ bus accidents • Accidents w/ injuries but no fatalities 	<ul style="list-style-type: none"> • Train derailment • Major bus / rail transit accidents • Major truck accidents • Multi-vehicle crashes • Hazmat spills • Injuries & fatalities 	<ul style="list-style-type: none"> • Train crashes • Airplane crashes • Hazmat incidents • Multi-vehicle accidents • Tunnel fires • Multiple injuries & fatalities 	<ul style="list-style-type: none"> • Port/airport incidents • Large building fire or explosion • Industrial incidents • Major tunnel/ bridge closure 	<ul style="list-style-type: none"> • Terrorist attack/WMD • Floods, blizzards, tornadoes • Transportation infrastructure collapse • Extended power/ water outage • Riots • Mass casualties
Expected Duration	0-2 HOURS	2-24 HOURS	DAYS		WEEKS

Graphic courtesy of John Contestabile, Maryland Department of Transportation (former position, graphic used with permission)

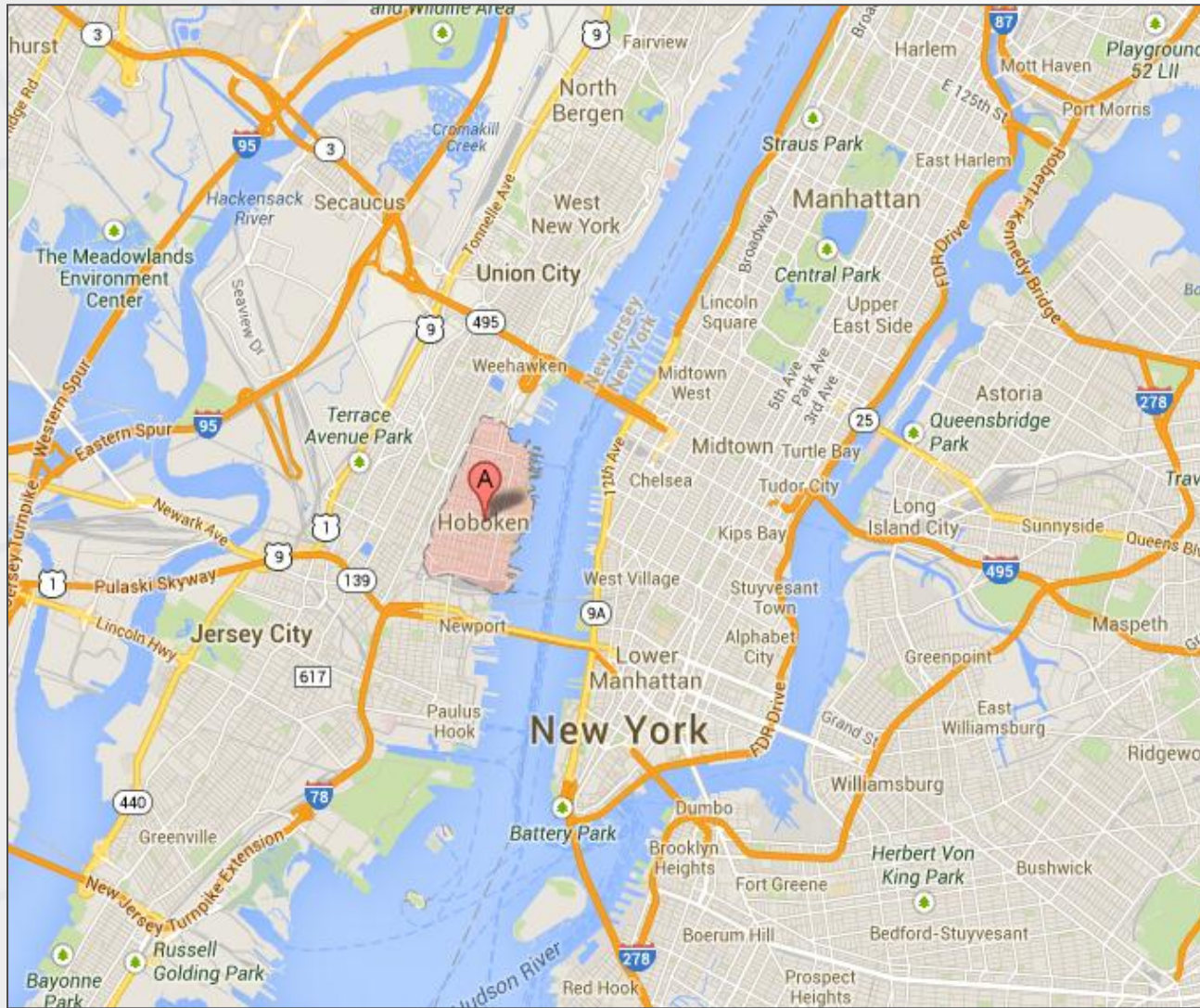
Connections Between Transportation Planning & Operations and Emergency Mgt. Operations & Recovery/ Mitigation Planning & Implementation

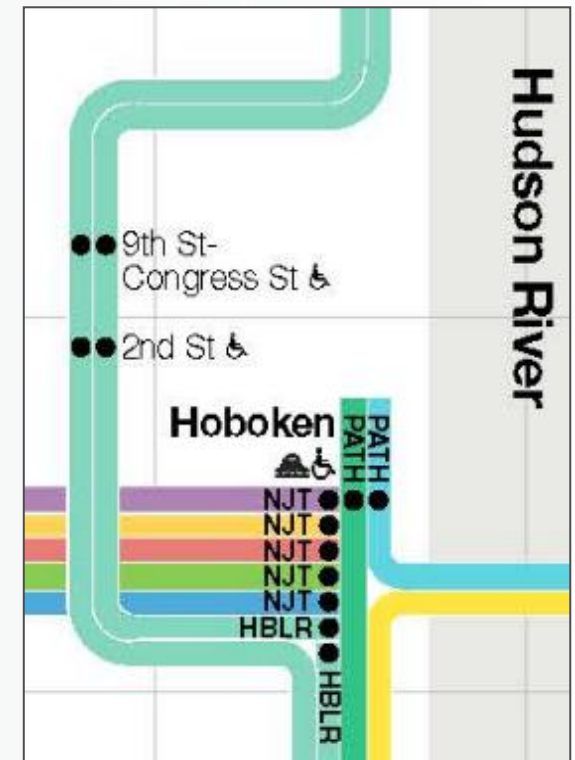
	Project Plans	Operations
Transportation	Transportation systems	Transport operations
	Long Range Transportation Plans link with community & land use plans; climate adaptation planning ties to EM mitigation planning	Day to day management of facilities, equipment and systems, incident response
Emergency Management	Recovery & Mitigation Planning & Implementation	Emergency Operations
	Coordinated support to community recovery- state multi-hazard mitigation plans update triennially	Tactical planning- all-hazards, with training, exercises, preparedness, response, recovery
Time Frames	Years to Decades +	Minutes to Months

Example: Regional Transportation and Community Resilience

- City of Hoboken Strategic Green Infrastructure Plan (New Jersey) – Transit Resiliency
Part of Together North Jersey

Hoboken: Regional Context



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Hoboken: Sandy Flooding



Hoboken: Making Regional Transit Locally Resilient



Hoboken: Making Regional Transit Locally Resilient

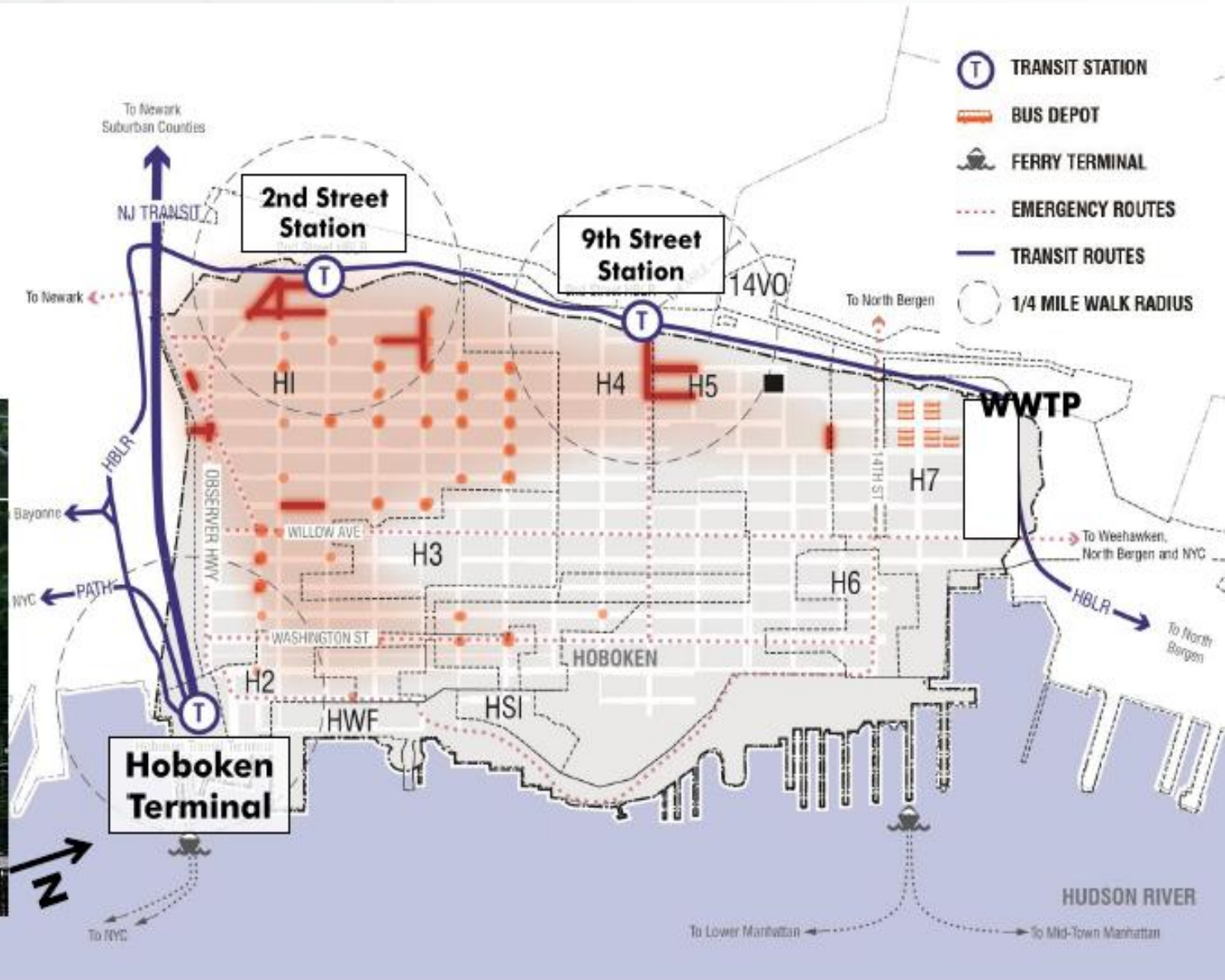


Hoboken: Making Regional Transit Locally Resilient

Critical Transit infrastructure is concentrated at the borders of H1, H2, H4, H5, and H7



9th Street HBLR Station

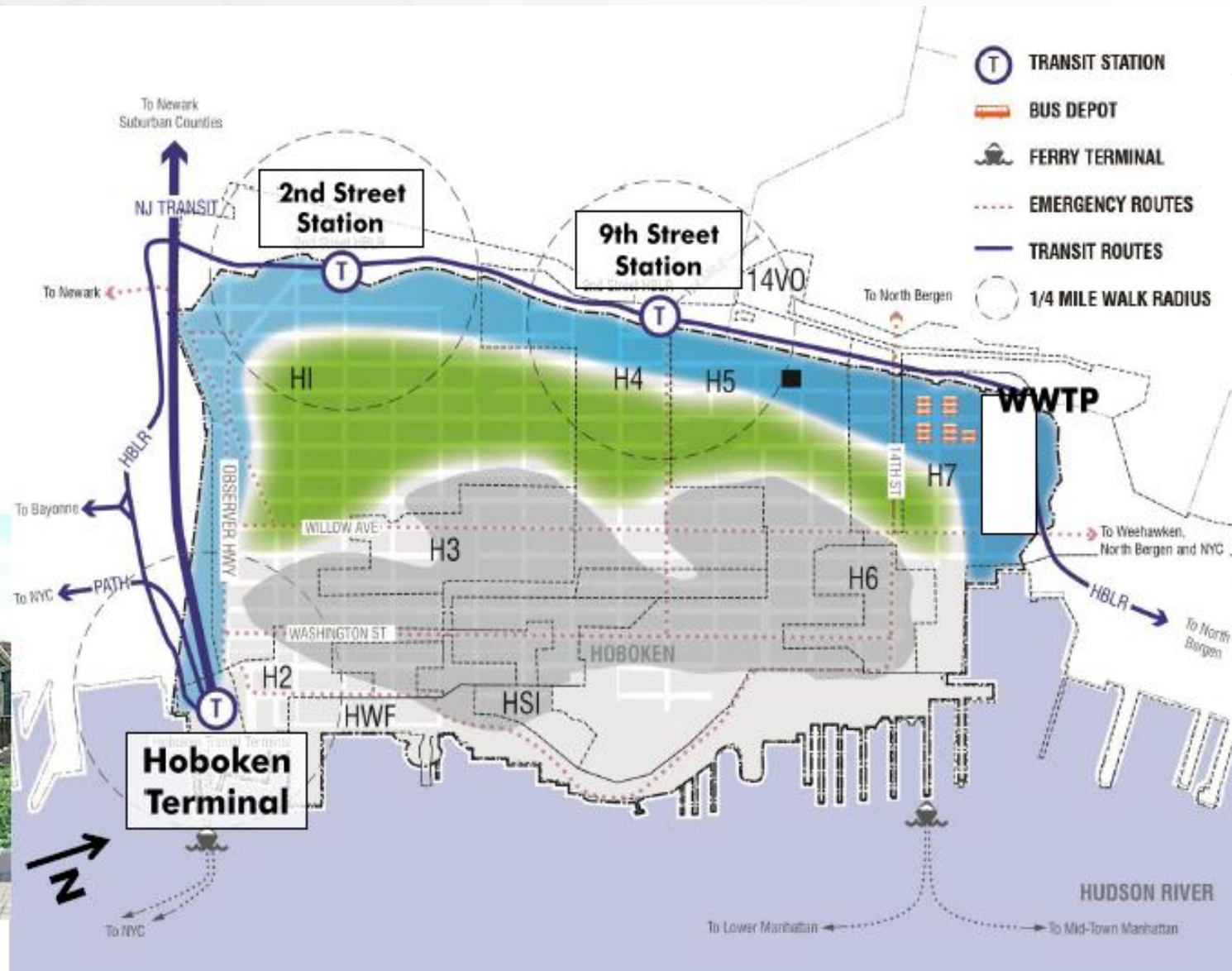


Hoboken: Making Regional Transit Locally Resilient

Transit runs along the “blue zone,” which presents **opportunities for protecting transit while furthering stormwater management goals**



2nd Street HBLR Station



RETENTION

Connecting the Dots

DETENTION

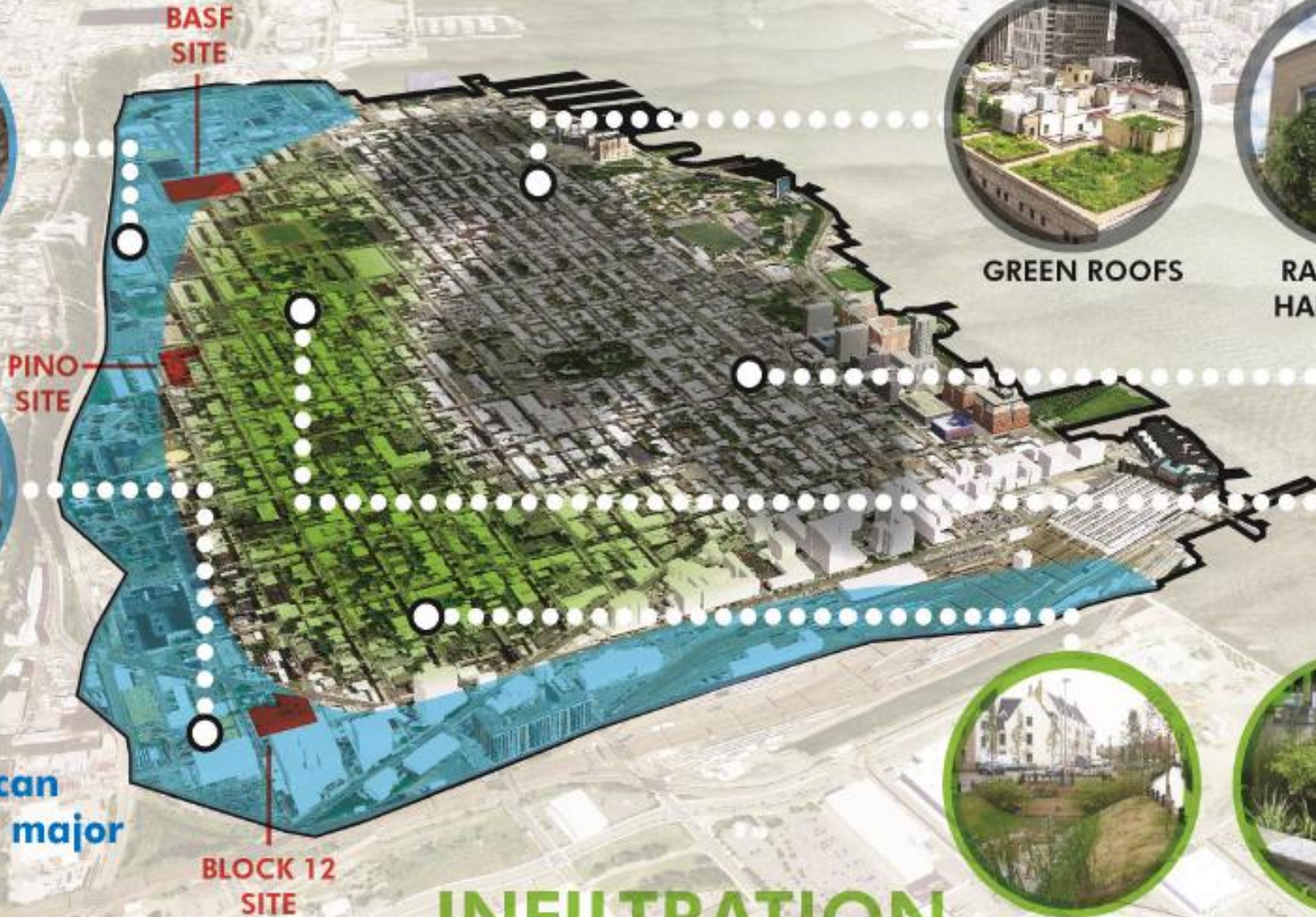


CONSTRUCTED
WETLANDS



SUBSURFACE
STORAGE

Blue zone can
support all major
BMPs



GREEN ROOFS



RAINWATER
HARVESTING



BIOSWALES



STORMWATER
PLANTERS

INFILTRATION

Hoboken: Making Regional Transit Locally Resilient

Opportunities – Short Term

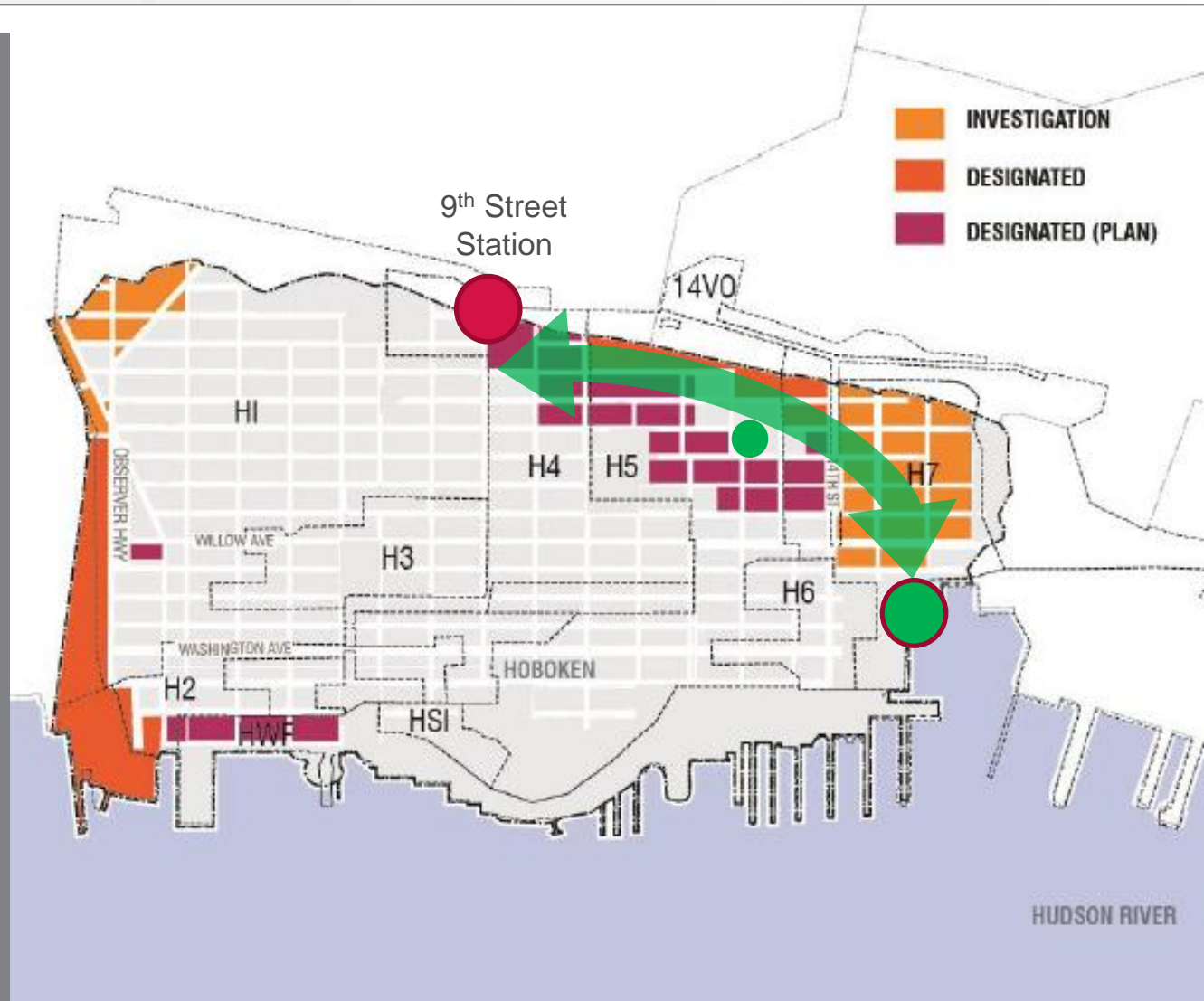
- Significant stormwater Retention/Treatment
- Ripe for immediate action
- Reduced public investment
- Incremental development
- Integrated Green Infrastructure



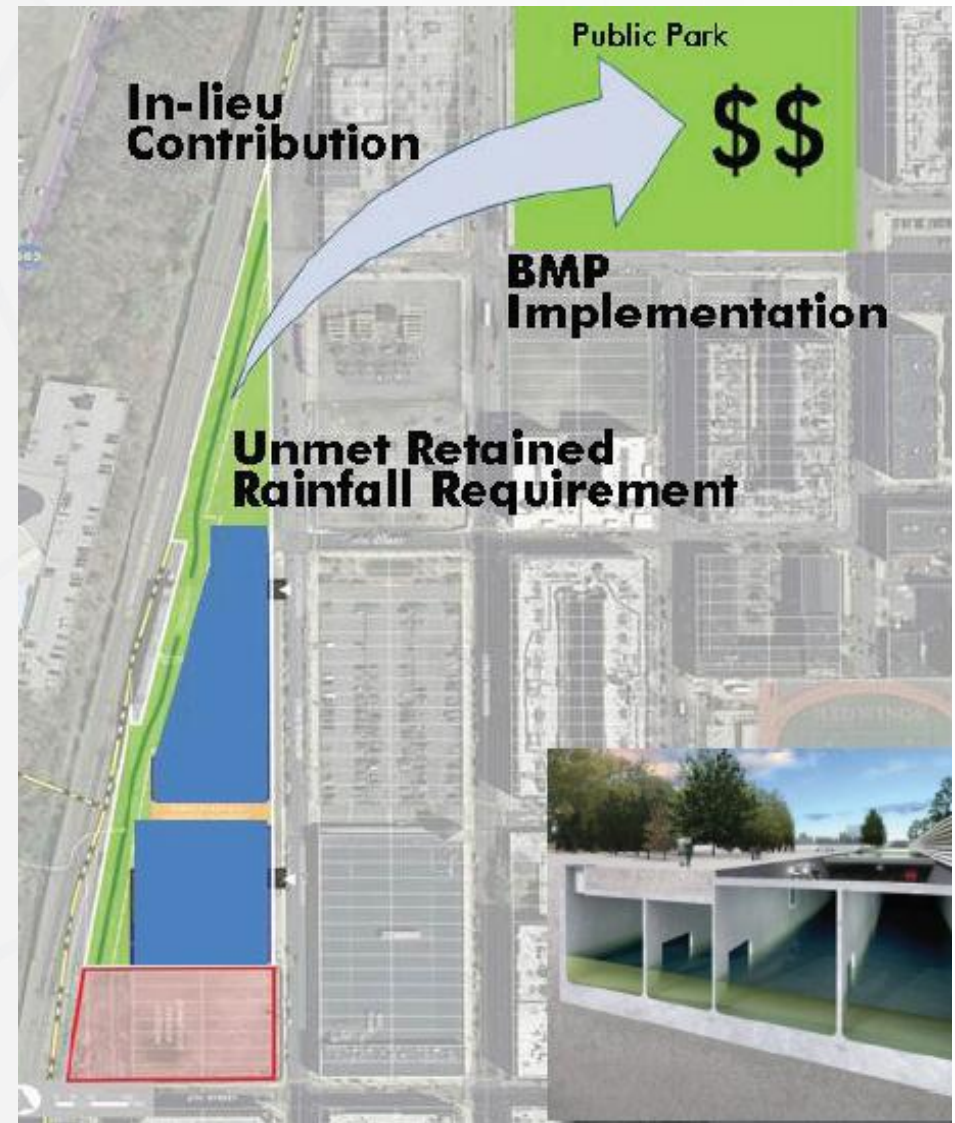
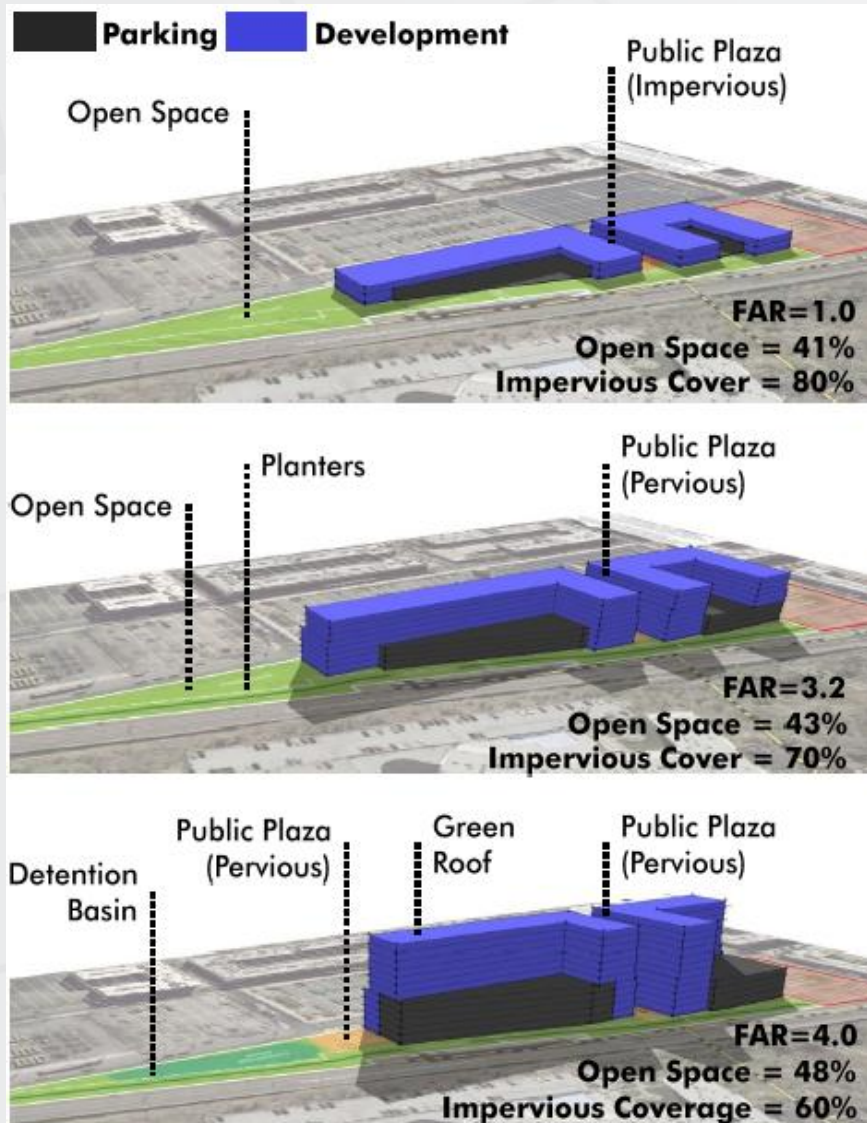
Hoboken: Making Regional Transit Locally Resilient through market forces

Opportunities – Market-Based

- Private Redevelopment – with Mixed use
- Creating new blue-green waterfront and new economic value and engine
- Combine with new TOD and Technology Campus
- Privately funded resiliency through market forces
- Sustained Tax Revenue
- New Hudson River waterfront
- Increased Local and Regional Transit Connectivity and Ridership



Hoboken: Making Regional Transit Locally Resilient through market forces + local planning



Conclusion

- Local and shorter-term projects can fit within regional longer-term projects
- Investment community is interested in investing in concrete projects with defined revenue source
- Multifunctional projects present greater investment opportunity and flexibility
- Sustainability and Resiliency initiatives (federal and local) can reinforce each other and create new value
- Market forces can help

To Provide Comments/ For Further Information

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