

**Intermodal Corridor To
the Port of Boston:**

**The South Boston Haul
Road – RAIL CORRIDOR**

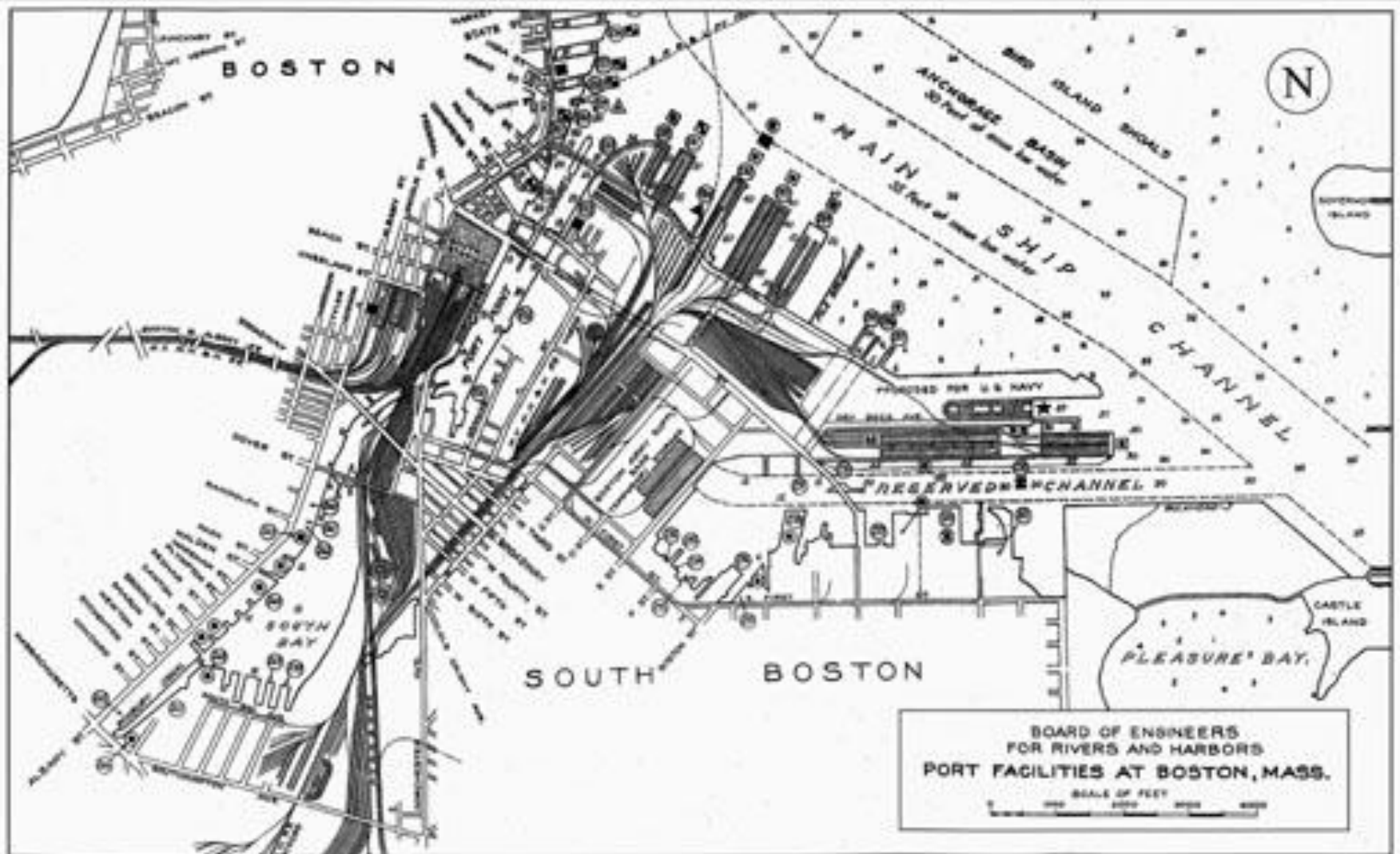
Frank S. DeMasi
RTAC Freight Committee
November 2009

History of the South Boston Haul Road

In the 1850s, the South Boston Haul Road (SBHR) route began to be used for railroad access to Boston from south of the growing city. Before 1900, it was made a two-track, depressed route with 12 overhead bridges. Extensive freight yards and maintenance facilities were constructed near the South Boston waterfront. The present MBTA Red Line subway tunnel, constructed in 1913 along Dorchester Avenue, crosses the cut on a diagonal under a bridge. The top of the tunnel is about 0.6 m (2 feet) below the railroad track on a three-level multimodal structure: passenger subway below freight railroad below highway. The depressed railroad route was widened from two tracks to four by 1920.

After the 1940s, passenger service was discontinued and freight service levels declined. The result was that two tracks in the depressed track area and seven yard tracks remained in various levels of deferred maintenance. The other two tracks remained in service for the (usually) daily local freight until the mid-1980s. The route was suggested as a possible multimodal shared-access corridor early in the Central Artery/Tunnel (CA/T) project; community reaction was favorable, and a study of feasibility was authorized in 1987.

Rail Facilities Port of Boston Circa 1950



The South Boston Haul Road – RAIL CORRIDOR Property Acquisition

During the onset of construction of the Central Artery Tunnel Project, much railroad right-of-way was owned by Conrail, portions owned by Amtrak and Massachusetts Bay Transportation Authority (MBTA).

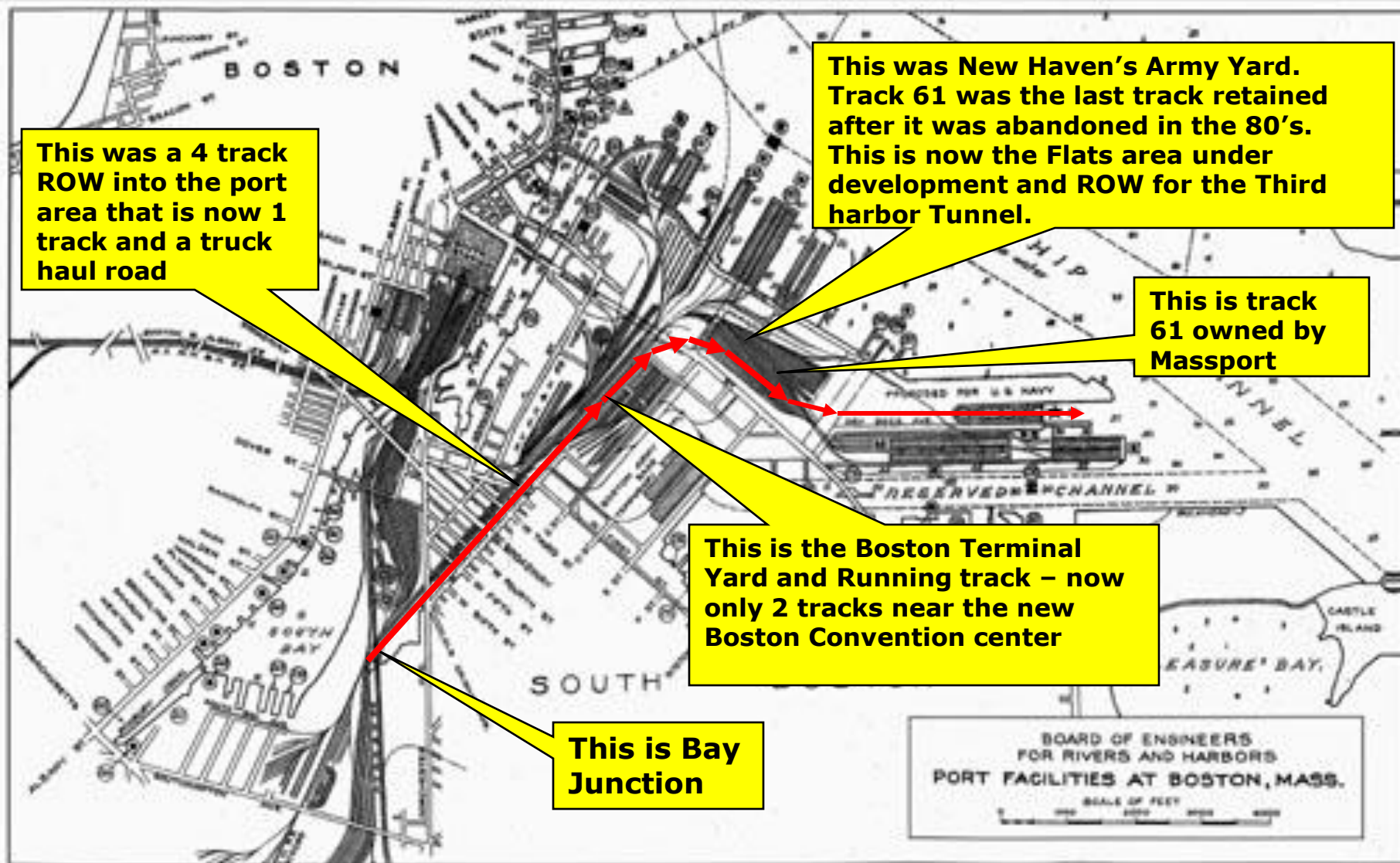
Portions of the railroad yards in South Boston in vicinity of the Boston Convention Center were owned by a local businessman, including air rights over land owned by Conrail.

Bridges along the Corridor were owned by three parties, City of Boston owning and maintaining roadway and sidewalks, Commonwealth of Massachusetts owning maintaining bridge structures, Conrail owning maintaining bridge abutments and walls.

When the railroad cut was physically widened from two tracks to four, the railroad did not officially widen the property in all cases. The City of Boston and several abutters owned some of the land where trains operated. Some land was owned by the U.S. Postal Service and by the U.S. Army.

Special federal procurement procedures were activated for land owned by MBTA, the Massachusetts Port Authority and the City of Boston. These property items had to be handled to allow clear title for the highway to pass to the Massachusetts Highway Department.

Rail Facilities Impact - I-90 Extension



The South Boston Haul Road – Port of Boston Intermodal Rail Corridor

Railroad Design:

The former yard area was reconfigured as a single through track to waterfront, with a runaround track and two storage tracks.

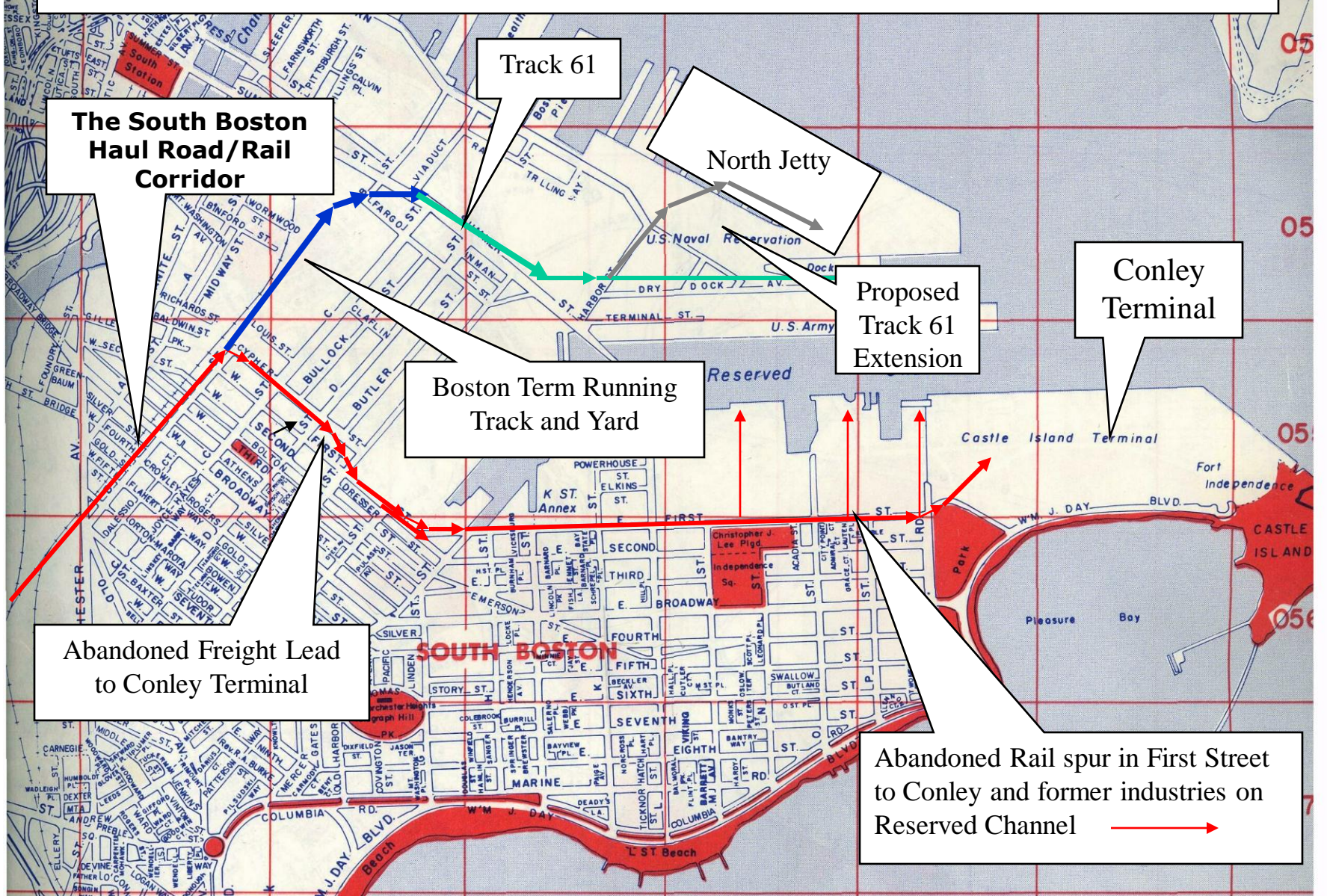
The old yards were removed including freight car scales, scale pit, team track loading dock, light towers.

A single new track on the east side of the railroad cut from Bay Junction provided access to the yard. Turnouts at the south end of the cut were relocated to match the new track location and new turnouts to two freight sidings were installed.

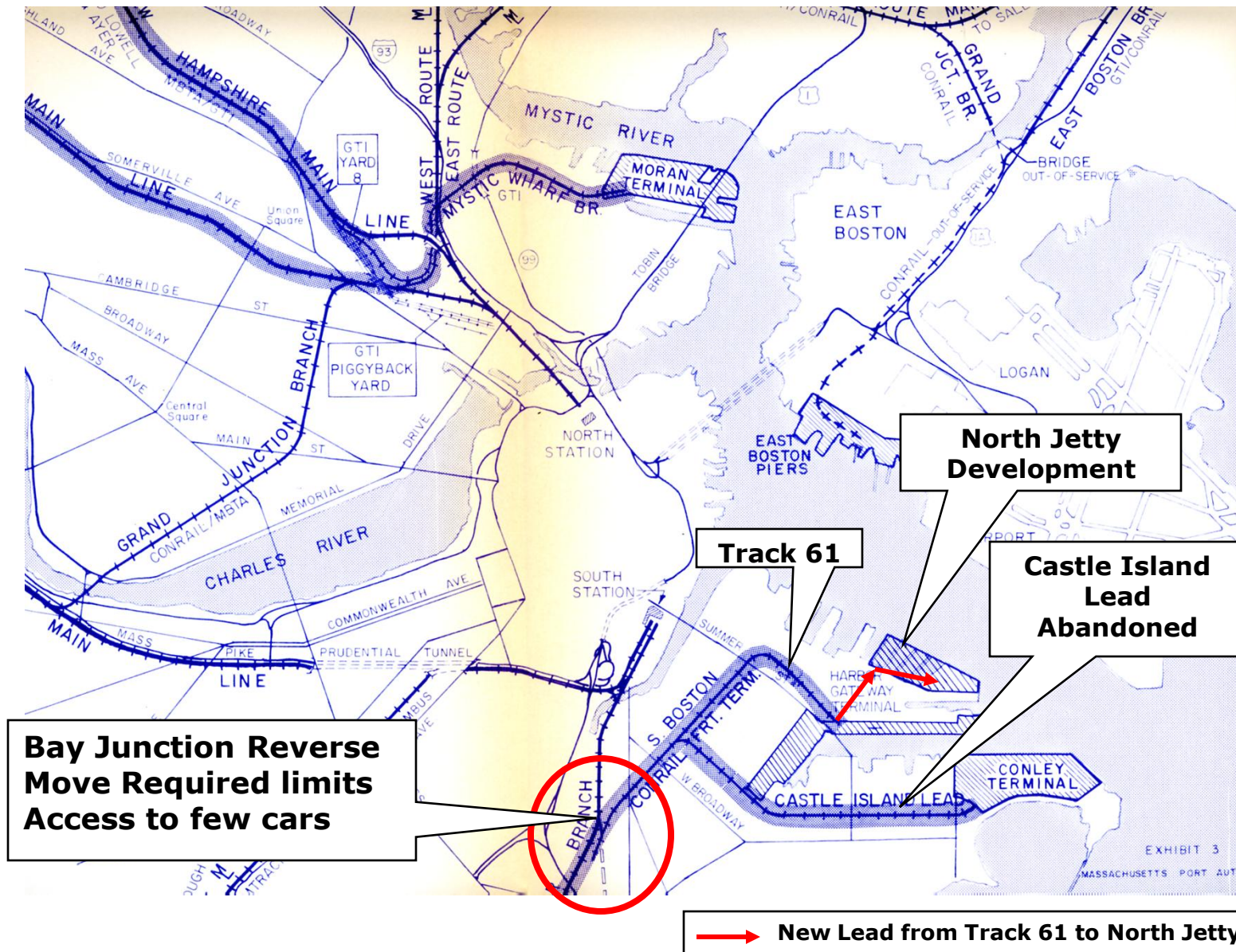
There are no railroad signal systems on these tracks. One at grade railroad/highway grade crossing was added for access to the haul road at the south end of the Boston Convention Center

The CA/T construction contractor built the tracks and railroad personnel installed the track tie-ins - During the CA/T Freight trains were re-scheduled to avoid operation during day-shift construction.

Rail Access to Conley Terminal - Boston Marine Industrial Park



Port Access Routes Circa 1990



Hazardous Materials – Boston Terminal Rationalization

A large site with polychlorinated biphenyls (PCBs) in the ground was found at a former junk yard that specialized in cutting-up and scrapping electrical transformers.

Locations with high concentrations of other hydrocarbon products were also identified.

Substantial investments of time and money were required to determine the extent of pollution and mitigate the sites.

Regulations for site mitigation changed greatly during program development, but the impacts to final remediation were slight.

Two buried railroad tank cars, probably used for fuel storage, were found and removed during construction.

Drainage

An early field survey revealed that portions of the railroad cut were more than 1.5 m (5 feet) below mean sea level.

Gravity drains to the nearby ocean were physically impossible.

There was a railroad pump station near the south end of the railroad cut.

A pump station with force main to a properly approved outfall would be required.

The total distance from the pump station to outfall is over 0.8 km (0.5 mile).

Numerous utilities and obstructions were encountered, so close coordination with the operations of the various entities along the outfall route was necessary.

The South Boston Haul Road Over a Decade of Service

After more than one year of construction the South Boston Haul Road (SBHR) opened in 1993. It has served emergency and commercial vehicles continually since then.

The SBHR was extended to the south to tie into a frontage road system at Interstate Route 93. The north end modified providing direct commercial vehicle access to Third Harbor Tunnel/Boston's Logan Airport while retaining access to the local street system in waterfront area.

Railroad freight volumes increased for delivery of bulk and over-size materials to the CA/T Project but ended a few years after construction of the project

The SBHR is a two-lane limited access highway more than 1-mile long for use as a very long ramp for all highway vehicles to and from Interstate 93 and Interstate 90.

Current Conditions



CSX First St Yard adjacent Boston Convention Center Looking landward



Source of CSX Boston Terminal Running Track under Old Colony Braintree Main Bridge - now Red Line lead to Cabot Car Barn and Storage Yard



End of track 61 on dock at rear of Falcon Terminal



Track 61 Landward to Boston Convention Center

Current Conditions

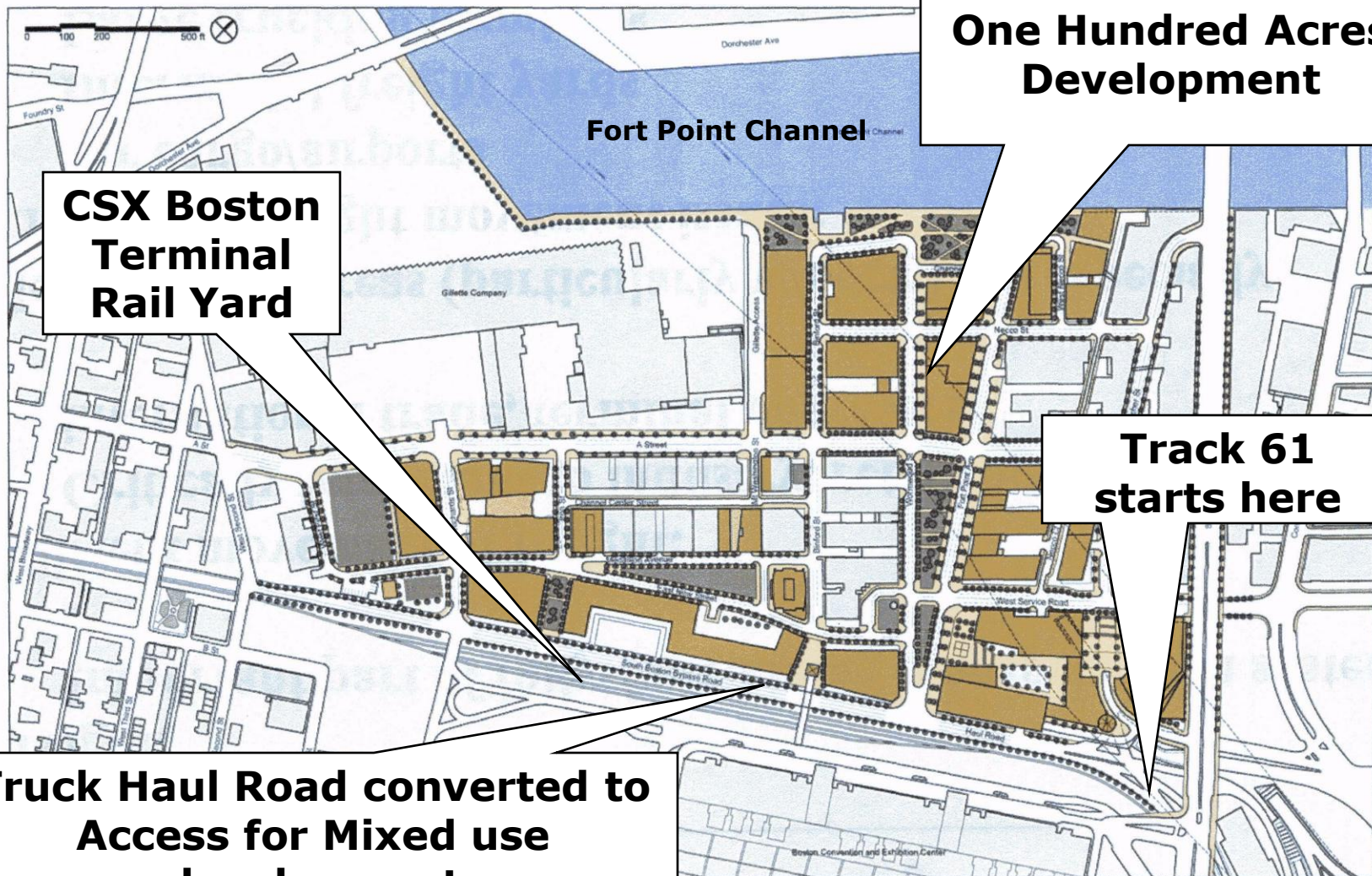


Track 61 looking to Boston Marine Industrial Park



Track 61 looking landward to D Street Overpass

Proposed Development of Fort Point Channel Area



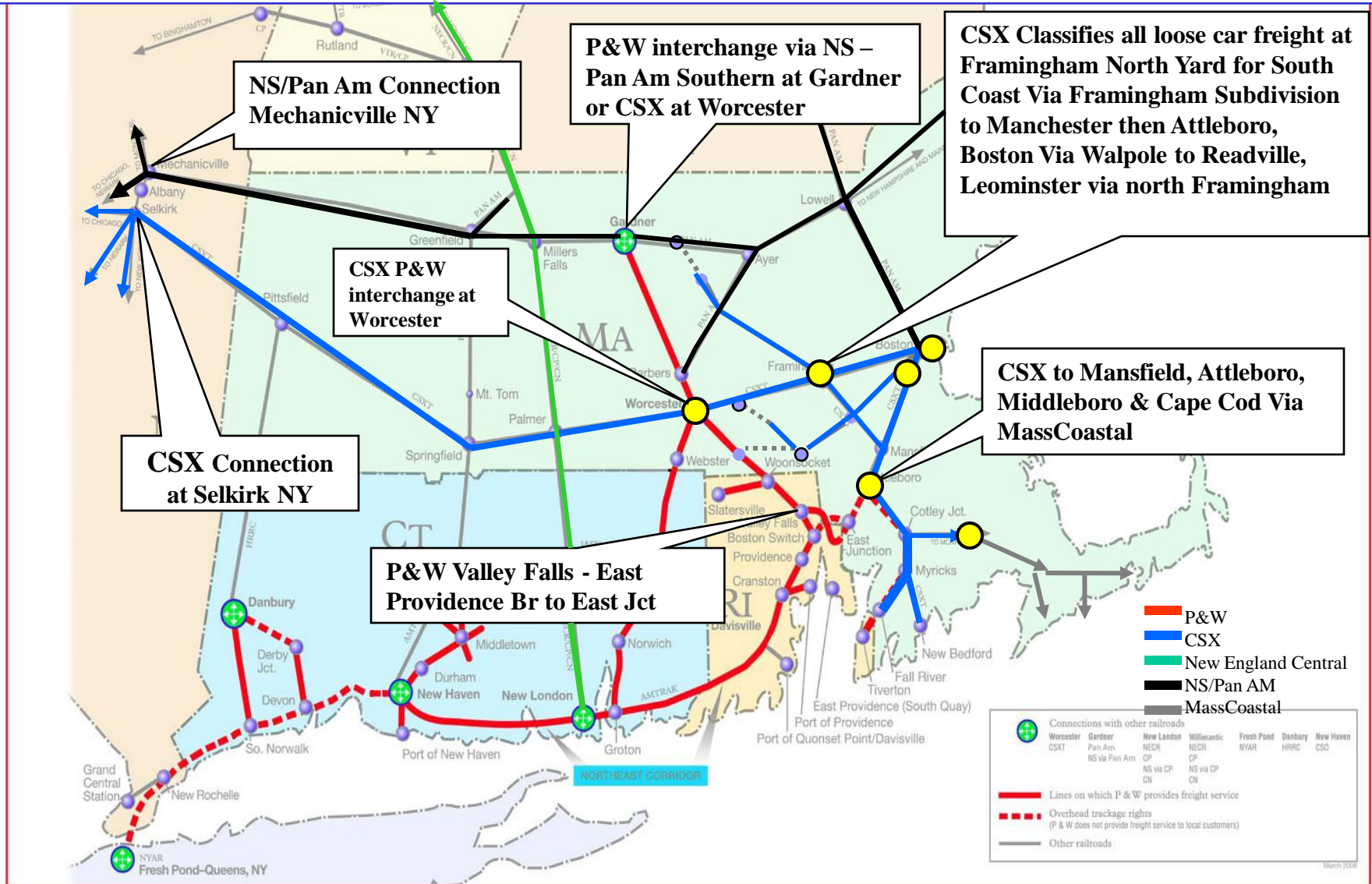
Suggestions for Projects Critical to Port Access/Conley – Moran Terminals

Landside access to Ports requires finite planning, time lines, and commitment to sustain existing rail infrastructure now on the ground but obsolete or obstructed by MBTA priority and track geometry. For example:

An economic analysis would ascertain planning needs for double stack capability of rail to port access routes, to include as a start, identifying specific high clearance rail routes, each highway bridge that constrains the selected routes, the cost to attain double stack bridge clearances or undercutting for these routes, and the resultant benefits/return on investment to the Commonwealth.

- o To be competitive our ports need improved rail access with increased vertical clearances and weight capacities.**
- o Bridges for double stack and or modern freight equipment require 286,000 to 315,000 pound capacity; vertical clearances need to be 19' 6' to 20' 8" in height.**

Existing CSX Rail Freight Service Via Selkirk, Framingham, Mansfield, Attleboro, Fall River, New Bedford, Middleboro, Cape Cod



Recommended CSX Rail Access to Conley Terminal

CSX routes bulk freight from Selkirk New York and intermodal freight from Syracuse New York Via Framingham to Beacon Park Yard in Allston using its Boston Main line.

The last leg of this direct route from Framingham to Beacon Park Yard, 21 miles, is constrained by over 40 bridges, Prudential Tunnel, and the I-90/93 interchange ramps

Congestion at South Station blocks direct access to South Boston, requiring truck dray to/from Conley Terminal

Recommended CSX Routing is from New York state line to Framingham, Framingham Subdivision to Boston via Walpole (13 Miles), Walpole to Readville (9.5 miles) on the Franklin Line, and then Readville to South Bay Jct (7.5 Miles) on the Fairmount line. (30 Miles Framingham to South Bay Jct).

Much of the route is rural having low density residential use from Framingham to Readville.

This Framingham Sub bypass is only 9 miles longer with 10 fewer bridges, has direct access to track 61 near Conley Terminal. CSX owns ROW Framingham to Walpole. ROW is freight only in Class # 3 condition with speed restriction to 10 MPH due to deferred Maintenance. The ROW Walpole to Readville - Readville to Bay Junction at is Class 4 with restricted speed over 3 bridges, now being rehabilitated by MBTA.

Recommended CSX intermodal route to Conley Terminal Framingham to Readville Bypass

40+ bridges from Fram to Beacon Park Yard

Framingham North Yard

CSX Boston Line

CSX Framingham Subdivision
13 miles to Walpole Class 3

Bay Junction So Boston

MBTA Fairmount Line

CSX Readville Yard

MBTA Franklin Line

Walpole Yard

**Locus of recommended
Port Access Route**

To Track
61

Legend

Freight Operators

- Bay Colony
- CSX
- Grafton & Upton
- Guilford Railroad
- Housatonic Railroad
- Massachusetts Central Railroad
- New England Central Railroad
- Providence and Worcester
- Pioneer Valley Railroad
- Quincy Bay Terminal
- Other rail
- rd-999-all arc

rr-cen node

Clearance for NBI Bridges

- Greater than or equal 6 meters
- Less than 6 meters



0 0.5 1 2 3 4 Miles

CTPS
Central Transportation Planning Staff
12 Park Street, Suite 2100
Boston, MA 02114
617.552.1700
February 10, 2004

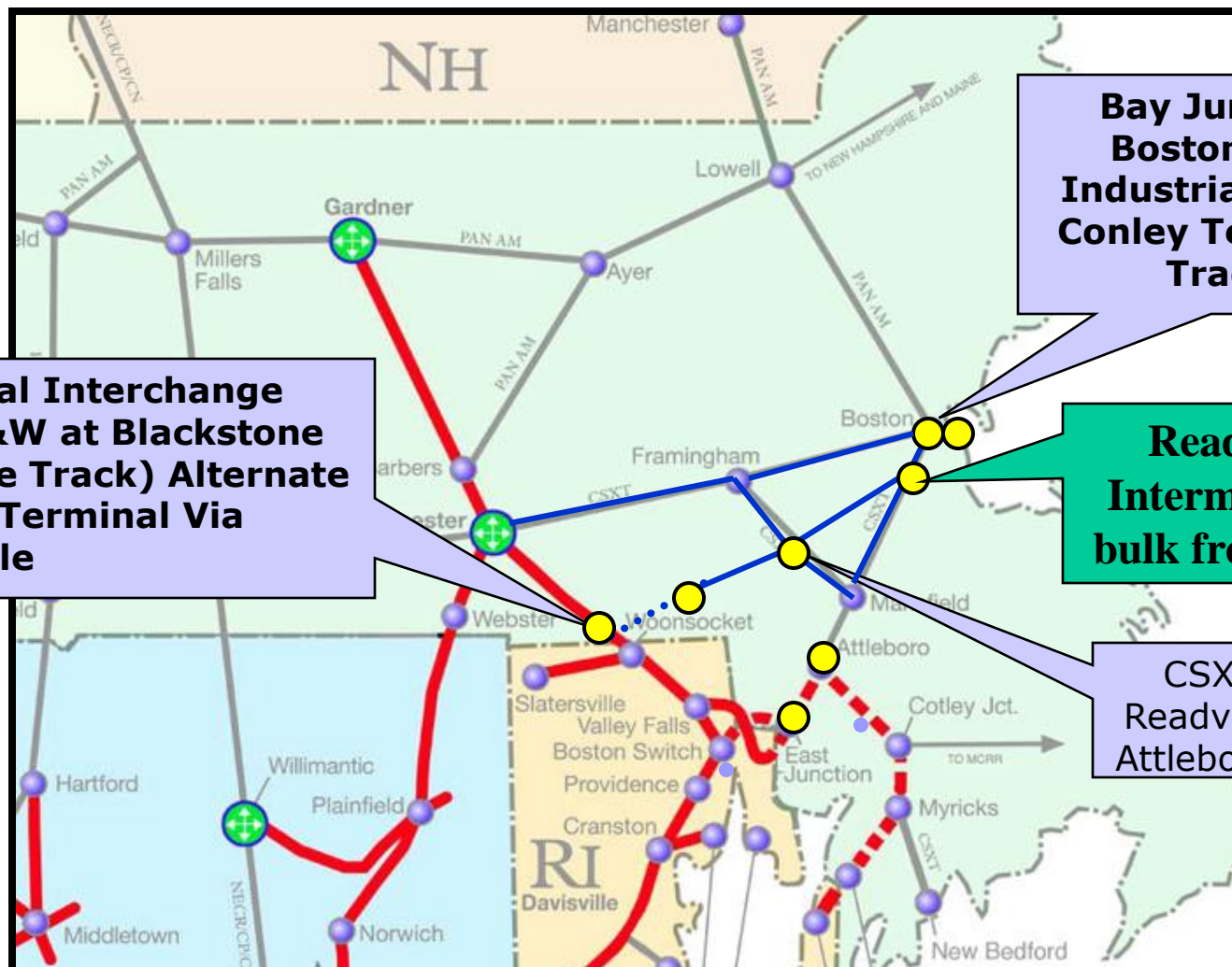
Proposed Alternate Rail Freight Service Via CSX and P&W

A Proposed Alternate Rail Freight Service to South Boston Via CSX and P&W at Worcester might be provided by reopening of P&W connection to the MBTA Franklin Line at Blackstone

Rail Service to Blackstone was discontinued in the late 60's

Extending rail service from the West end of the Franklin Line to Blackstone would connect P&W to Readville and via the Fairmount line to South Boston and the Boston Marine Industrial Park and Conley Terminal via track 61.

This routing would allow freight to bypass the congested Boston Line between Worcester and Boston.



Potential Interchange with P&W at Blackstone (replace Track) Alternate Conley Terminal Via Readville

Bay Junction to Boston Marine Industrial Park and Conley Terminal via Track 61

Readville Yard - Intermodal Transfer bulk freight transload

CSX to Walpole, Readville, Mansfield, Attleboro, Middleboro

Proposed Alternate Rail Freight Service Via CSX and P&W at Worcester with a reopening of P&W connection to the MBTA Franklin Line at Blackstone – Connecting to the Fairmount line at Readville then on to Conley Terminal in South Boston via Bay Junction and Track 61

Recommendation/Next Steps

What we want : (Starting with RTAC and sister MPO organizations)

CSX/NS/PAN AM/P&W/MRA members and EOT, now MA DOT, to adopt the overall strategy for combined assets and freight access rights in a consortium/public private partnership with public and private entities (including trucking and warehousemen and logistics providers) to enhance intermodal freight distribution in Eastern MA (highest area of consumption) in deference to single modal use of trucking

By whom:

Engage the governor/legislature (Joint Committee on Transportation, Senate Committee on bonding, Capital Expenditures and State Assets, Senate Committee on Ways and Means, Economic Development & Emerging Technologies, Senate committee on Global Warming and Climate Change), as well as Environmental and Economic Development agencies to "buy in" a strategy to provide needed infrastructure funding and *permitting/development* of land (existing brown field and industrial sites) to enable inland and coastal distribution in Eastern MA

When:

Before completion of the State Rail and Freight Plan (Dec 09), the Federal FY 11 (Sept 10) amendments to FY10 state transportation plan, MBTA Program for Mass Transit (PMT), MBTA Capital Investment Program (CIP), FY 11/12 MPO level Transportation Improvement Program (TIP), MPO Amendments to MPO Regional Transportation Plans (RTP). *(All require FTA/FHWA approval)*